GW - 202

GENERAL CORRESPONDENCE

YEAR(S): 1005 - 1995

Affidavit of Publication

STATE OF NEW MEXICO

) ss.

COUNTY OF LEA

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertisting Director of **THE LOVINGTON DAILY LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

was published in a regular and entire issue of THE LOV-

INGTON DAILY LEADER and not in any supplement there-

of, for <u>one (1) day</u>, beginning with the issue of

June 2 _____, 2005 and ending with the issue

of_____, 2005.

And that the cost of publishing said notice is the sum of $\frac{55.36}{2}$ which sum has been (Paid) as Court Costs.

Subscribed and sworn to before me this 21st day of July 2005

Debbie Schilling

Notary Public, Lea County, New Mexico My Commission Expires June 22, 2006 LEGAL NOTICE NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPART-MENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the - Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. Telephone (505) 476-3440:

(GW-202) - Pro-Kem, Inc., Gerald Phillips, P.O. Box 1506, Lovington, New Mexico 88260, has submitted a discharge permit renewal application for their Artesia facility located in the SE/4 NW/4 of Section 15, Township 16 South, Range 36 East, Lea County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank prior to transport off-site to an OCD approved off-site disposal facility. The discharge permit addresses how oilfield products and waste will be properly handled, stored and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 60 feet with a total dissolved solids concentrations ranging from approximately 100 mg/l to 200 mg/l.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of Oil Conservation the Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. **Request for public hearing** shall set forth the reasons why a hearing shall be held. A hearing will be held if

the director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 23rd day of May 2005.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

MARK FEISMIER, P.E., Director SEAL

Published in the Lovington Daily Leader June 2, 2005. NM OIL CONSERVATION DIV. Attn: Ed Martin 1220 ST. FRANCIS DR

SANTA FE NM 87505

ALTERNATE ACCOUNT: 56689 AD NUMBER: 00122320 ACCOUNT: 00002212 LEGAL NO: 77219 P.O. #: 05-199-050185 287 LINES 1 TIME(S) 126.28 AFFIDAVIT: 5.50 TAX: 9.64 TOTAL: 141.42

RECENT

OK to pay in the Martin

AFFIDAVIT OF PUBLICATION

THE SANTA FE

Founded 1849

STATE OF NEW MEXICO COUNTY OF SANTA FE

I, B. Perner, being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication # 77219 a copy of which is hereto attached was published in said newspaper 1 day(s) between 06/07/2005 and 06/07/2005 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 7th day of June, 2005 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

S/

LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 7th day of June, 2005

Notary Commission Expires:



SantaFeNewMexican.com

202 East Marcv Street. Santa Fe. NM 87501-2021 • 505-983-3303 • fax: 505-984-1785 • P.O. Box 2048, Santa Fe, NM 87504-2048



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STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-202) - Pro-Kem, Inc., Gerald Phillips, P.O. Box 1506, Loving-New ton. Mexico 88260, has submitted a discharge permit renewal application for their Artesia facility located in the SE/4 NW/4 of Section 15, Township 16 South, Range 36 East, Lea County, New Mexico. All effluents that may be generated at the facility will be col-lected in a closed top tank prior to trans-port off-site to an OCD approved off-site disposal facility. The discharge permit addresses how oilfield products and waste will be properly handled, stored and disposed of, including how spills, leaks, and other accidental discharges to the sur-face will be managed in order to protect fresh water. Ground-water most likely to be affected by an accidental discharge is at a depth of approxi-mately 60 feet with a total dissolved solids concentrations ranging from approxi-mately 100 mg/l to 200 mg/l.

(GW-356) - Black Hills Exploration and Production, Inc., Mr. Randy Fox, 350 Indiana Street, Suite 400, Golden, Colorado 80401, (720) 210-1334, has submitted a discharge permit application for the Espinosa Canyon Gas Plant located in the NW/4 NE/4 of Section 13, Township 30 North, Range 4 West, NMPM, Rio Arriba County, New Mexico. Approximately 500 gallons of liquid Thermal Oxidizer waste per year is collected in an above ground steel tank prior to transport off-site to an OCD approved disposal facility. The discharge permit addresses how oilfield products and waste will be properly handled, stored and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 250 feet with a total dissolved sollds concentration ranging from approximately 200 to 2000 mg/l.

may obtain further information from the Oil Conservation Divithe sion and may submit written comments to the Director-of the Oil **Conservation Division** at the address given above. The discharge plan application may be viewed at the above address be-tween 8:00 a.m. and the 4:00 p.m., Monday thru Friday. Prior to ruling on any pro-posed discharge plan or its modification, the Director of the Oil **Conservation Division** shall allow at least thirty (30) days after the date of publica-tion of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for pub-lic hearing shall set forth the reasons why hearing shall be held.

A hearing will be held if the director determines that there is significant public interest.

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GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 23rd day of May 2005.

> STATE OF NEW MEXICO OIL CONSERVATION DIVISION

SEAL

MARK FEISMIER, P.E., Director Legal #77219 Pub. June 7, 2005



ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

	I hereby acknowledge recei	ipt of check No.	$\frac{5}{17}$
	or cash received on	in the amour	at of $S / BO(17)$
	from Pro-Kem, Inc.		
	for Lowington Service	Facility	610-202
	Submitted by:	Jama . Dat	a: 5/19/05
	Submitted to ASD by:	Dat	:e:
	Received in ASD by:	Dat	:e:
	Filing Fee V New	Facility Renewa	1 /
	Modification Ot	ther	· · · · · · · · · · · · · · · · · · ·
	Organization Code <u>521.0</u>	7 Applicable	FY 2001
ourily Makana an Makada <u>seculari</u>	To be deposited in the Wat Full Payment or	cer Quality Management	Fund.
	PRO-KEM, INC. BOX 1506 396-7433 LOVINGTON, NM 88260	Western Commerce Bank Lovingion, NM DATE <u>5-1</u>	95-108/1122 8
PAY_ONE			
	HUNDRED AND NO/100	DC	DLLARS Φ 100.00
	HUNDRED AND NO/100	Dc	DLLARS $\Phi[100.00]$

Desaits on bec

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PRO-KEM, INC. LOVINGTON, NM 88260

DETACH AND RETAIN THIS STATEMENT THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW NOT CORRECT, PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESI'

DATE	DECODIDITION	AMOUNT	DISTRIBUTIONS		
DATE	DESCRIPTION	AMOUNT	ACCT. NO.	AMOUNT	
5 - 17 - 05	NMED-Water Quality Management	100.00			

EMPLOYEE ____

					DEC	UCTIONS				TOTAL	
ENDING	EARNINGS	F.i.C.A.	WITHHOLDING U.S. INC. TAX	STATE TAX	MEDICARE					DEDUCTIONS	NET PAY
A3	J					:	· · · · · · · · · ·	1			



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DISCHARGE PLAN APPLICATION

1. **Type of Operation**

Blending, sales and application of oilfield treating chemicals for producing wells.

2. Name of Operator or Legally Responsible Party and Local Representative

ProKem, Inc. P.O. Box 1506 2400 South Main Lovington, New Mexico88260 Contact Person: Gerald Phillips 505-396-7433

3. Location of the Discharge Plan Facility

SE/4, NW/4 Section 15 Township 16S Range 36E, Lea County, New Mexico

4. Landowners

Pro-Kem, Inc. 2400 South Main Lovington, New Mexico 88260 505-396-7433

5. **Facility Description**

Facility has had no additions or modifications since the previous application.

6. Materials Stored or Used at the Facility

Pro-Kem stores and uses the same materials as listed on the previous application.

7. Sources and Quantities of Effluent and Waste Solids Generated at the Facility

There have been no changes to the quantities of effluent and Waste Solids generated at the facility.

8. Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures

No change in procedures since the previous application.

9. Proposed Modifications

There are no proposed modifications to the facility or this plan.

10. Inspection, Maintenance and Reporting

The facility has no surface impoundments waste disposal facilities on site.

11. Spill/Leak Prevention and Reporting Procedures (Contingency Plans)

Spills or leaks will be handled according NMOCD Rule116 and WQCC Section 1203 for spill reporting purposes.

12. <u>Site Characteristics</u>

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No changes in site characteristics.

13. Other Compliance Information

Spills or leaks will be handled according NMOCD Rule116 and WQCC Section 1203 for spill reporting purposes.

14. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Gerald Phillips

Quald Philli Signature:

Title: President

Date: April 19, 2005



NEW EXICO ENERGY, MERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON Governor Joanna Prukop Cabinet Secretary

April 4, 2005

Mark E. Fesmire, P.E. Director Oil Conservation Division

Mr. Gerald Phillips Pro-Kem, Inc. P.O. Box 1506 Lovington, New Mexico 88260

RE: Discharge Permit Renewal Notice for Pro-Kem, Inc. Facility

Dear Mr. Phillips:

Pro-Kem, Inc. has the following discharge permit that expires on the date shown below.

GW-202 expires 8/23/2005 – Lovington Service Facility

WOCC 3106.F. If the holder of an approved discharge permit submits an application for discharge permit renewal at least 120 days before the discharge permit expires, and the discharger is not in violation of the approved discharge permit on the date of its expiration, then the existing approved discharge permit for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge permit continued under this provision remains fully effective and enforceable. An application for discharge permit renewal must include and adequately address all of the information necessary for evaluation of a new discharge permit. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]

The discharge permit renewal application for the above facility is subject to WQCC Regulation 3114. Every billable facility submitting a discharge permit renewal will be assessed a fee equal to the filing fee of \$100.00 plus a flat fee for oil field service facilities. The \$100.00 filing fee is submitted with the discharge permit renewal application and is nonrefundable.

Mr. Gerald Phillips Pro-Kem, Inc. Company April 4, 2005 Page 2

Please make check payable to: NMED-Water Quality Management and addressed to the OCD Santa Fe Office. Please submit the original discharge permit renewal application and one copy to the OCD Santa Fe Office and one copy to the OCD Hobbs District Office. Note that the completed and signed application form must be submitted with your discharge permit renewal request. (Copies of the WQCC regulations and discharge permit application form and guidelines are available on OCD's website at <u>www.emnrd.state.nm.us/ocd/</u>).

If the above facility no longer has any actual or potential discharges and a discharge permit is not needed, please notify this office. If the Pro-Kem, Inc. has any questions, please do not hesitate to contact me at (505) 476-3489.

Sincerely,

W. Jack Ford, C.P.G. Oil Conservation Division

cc: OCD Hobbs District Office

1		_
	ACXNO	WLEDGEMENT OF RECEIPT OF CHECX/CASH
	I hereby acknowledge race;	
	or cash received on	pt of check Nd dated $\frac{1/15}{02}$
	from PRO-KEM INC.	$\frac{1}{10000}$ In the amount of \$ $\frac{10000}{1000}$
	for GW-202 Filing	Fes
	Submitted by:	OP Nei 2 Data:
	Submitted to ASD by:	Martin Dare: 1/18/2
	Received in ASD by:	Date:
	Filing Fee New	Facility Renewal
	Modification Ot	her
	Organization Code <u>521.0</u> To be deposited in the Wate Full Payment <u></u> or	Applicable FY <u>2001</u> er Quality Management Fund. Annual Increment
	PRO-KEM, INC. BOX 1506 396-7433 LOVINGTON, NM 88260	Western Commerce Bank Lovington. NM DATE <u>1-15-02</u> 95-108/1122 6
₽AY_ <u>0N</u>	E HUNDRED AND NO/100	DOLLARS \$ 100.00
TO THE ORDER OF	NMED-Water Quality Managemer OIL CONSERVATION DIVISION 1220 SOUTH ST FRANCIS DRIVE SANTA FE NM 87505	Durbara Mara

NEW MEXICO ENVIRONMENT DEPARTMENT REVENUE TRANSMITTAL FORM

· ·								
	Description	FUND	CES	DFA ORG	DFA ACCT	ED ORG	ED ACCT	AMOUNT
1	CY Reimbursement Project Tax	064	01					
5	Gross Receipt Tax	084	01		2329	900000	2329134	
3	Air Quality Title V	092	13	1300	1896	90000 0	4169134	
4	PRP Prepayments	248	14	1400	9696	900000	4969014	
2	Climax Chemical Co.	248	14	1400	9696	900000	4989015	
6	Circle K Reimbursements	248	14	1400	969 6	900000	4959248	
7	Hazardous Waste Permits	339	27	2700	1 69 6	900000	4169027	
8	Hazardous Waste Annual Generator Fees	339	27	2700	1696	900000	4169339	
10	Water Quality - Oil Conservation Division	341	29		2329	900000	2329029	840.00 .
11	Water Quality - GW Discharge Permit	341	29	2900	1696	900000	4169029	
12	Air Quality Permits	631	31	2500	1696	900000	4169031	1
13_	Payments under Protest	851	33		2919	900000	2919033	1
*14_	Xerox Copies	652	34		2349	900000	2349001	**
15_	Ground Water Penalties	652	34		2349	900000	2349002	1
16_	Witness Fees	652	34		2349	90 0000	24390 03	1
17_	Air Quality Penalties	652	34		2349	900000	2349004	1
18_	OSHA Penalties	652	34		2349	900000	2349005	1
19_	Prior Year Reimbursement	652	34		2349	900000	2349006	1
20_	Surface Water Quality Certification	652	34		2349	900000	2349009	2
21_	Jury Duty	852	34		2349	900000	2349012	2
22 _	CY Reimbursements (I.e. telephone)	652	34		2349	900000	2349014	2
*23_	UST Owner's List	783	24	2500	9696	900000	4969201	•2.
*24	Hezerdous Waste Notifiers List	783	24	2500	9696	900000	4969202	-2
*25_	UST Maps	783	24	2500	9696	900000	4989203	•2
*26 _	UST Owner's Update	783	24	2500	9696	900000	4969205	*2
*28 _	Hazardous Waste Regulations	783	24	2500	9696	900000	4969207	
*29_	Radiologic Tech. Regulations	783	24	2500	9696	900000	49092 08	*2:
*30	Superfund CERLIS List	783	24	2500	9696	900000	4969211	*3(
31_	Solid Waste Permit Fees	783	24	2500	9696	900000	4969213	31
32_	Smoking School	783	24	2500	9696	900000	49 59214	
*33_	SWQB - NPS Publications	783	24	2500	8696	900000	4969222	
*34	Radiation Licensing Regulation	783	24	2500	9696	900000	4969228	+34
*35	Sale of Equipment	783	24	250 0	9696	90 0000	49 69301	•3{
*36	Sale of Automobile	783	24	2500	9696	900000	4969302	*3E
*37	Lust Recoveries	783	24	2500	9696	900000	4969614	••37
*38	Lust Repayments	783	24	2500	9696	900000	4969615	••38
39	Surface Water Publication	783	24	2500	9896	900000	4969801	39
40_	Excon Reese Drive Ruidoso - CAF	783	24	2500	9695	90 0000	4969242	40
41	Emerg. Hazardous Waste Penalties NOV	957	32	9600	1696	900000	4164032	41
42 -	Kadiologic Tech. Certification	987	05	0500	1696	900000	4169005	42
44	Ust Permit Fees	989	20	3100	1696	900000	4169020	44
45 -	USE Tank Installers Fees	989	20	3100	1696	900000	4169021	45
48_	Food Permit Fees	991	26	2600	1696	900000	4169026	46
43	Other						· · · · · · · · · · · · · · · · · · ·	43

* Gross Receipt Tax Required

** Site Name & Project Code Required

TOTAL 840.00

001

F:U∠

Contact Person:

ld Martin

Phone: 476-3492 Date: 1/18/02

Received in ASD By:

Date:

RT #:

ST # :

F\$8025 Revised 07/07/00



NEW MEXICO ENERGY, MMERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury **Cabinet Secretary**

January 11, 2002

Lori Wrotenberv Director **Oil Conservation Division**

CERTIFIED MAIL RETURN RECEIPT NO. 3929 7396

Mr. Gerald Phillips Pro-Kem, Inc. P.O. Box 1506 Lovington, New Mexico 88260

RE: **Discharge Plan Fee GW-202 Lovington Service Facility** Lea County, New Mexico

Dear Mr. Phillips:

On July 26, 2001, Pro-Kem, Inc., received, via certified mail, an approval dated July 25, 2001 from the New Mexico Oil Conservation Division (OCD) for discharge plan GW-202. Each discharge plan has a filing fee and a flat fee as described in WQCC Section 3114. A review of the files for this site indicates that the OCD has not, as of this date (January 10, 2002), received the filing fee. The last check submitted by Pro-Kem, Inc. was dated July 27, 2001 in the amount of \$1,700.00 for the required flat fee for the discharge plan. The filing fee of \$100.00 is due and payable for discharge plan GW-202.

Pro-Kem, Inc. will submit the remaining \$100.00 filing fee in full by February 28, 2002 in order to be in compliance with Water Quality Control Commission Regulation 3114.B.6, or the OCD may initiate enforcement actions which may include fines and/or an order to cease all operations at the facility. Please make all checks payable to: NMED-Water Quality Management and addressed to the OCD Santa Fe Office.

If you have any questions regarding this matter, please contact Mr. Jack Ford at (505) 476-3489.

Sincerely.

Roger Anderson Environmental Bureau Chief

RCA/wif

Hobbs OCD district office xc:



17	
	ACXNOWLEDGEMENT OF RECEIPT OF CHECK/CASH
	I hereby acknowledge receipt of check No dated $\frac{7/27/01}{1,27/01}$ or cash received on in the amount of \$ $\frac{1}{1,100.00}$
	for <u>Lovington Facilite</u> <u>Gw-202</u> Submitted by: <u>MAJan</u> Date: <u>3/7/07</u>
	Received in ASD by:Date:Date:
	Filing Fee New Facility Renewal _/
	Modification Other
	Organization Code <u>521.07</u> Applicable FY <u>2001</u>
	To be deposited in the Water Quality Management Fund. Full Fayment <u>V</u> or Annual Increment
	PRO-KEM, INC. Western Commerce Bank Lovington, NM 88260 Bank Bank Bank DATE July 27, 2001 95-108/1122 6
PAY_ONE	THOUSAND SEVEN HUNDRED AND NO/100
TO THE ORDER OF	WATER MANAGEMENT QUALITY MANAGEMENT FUND % OIL CONSERVATION DIVISION 1220 SOUTH FRANCIS DRIVE SANTA FE NM 87505

۰.

DETACH AND RETAIN THIS STATEMENT THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW NOT CORRECT, PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIF

PRO-KEM. INC. LOVIN^{, °}ON, NM 88260

			DISTRIBUTIONS		
DATE	DESCRIPTION	AMOUNT		AMOUNT	
7-27-01	Water Management Quality Management Fund	1,700.00			
	Ground water discharge plan renewal GW-202				

EMPLOYEE								 	,,	
		1			DED	UCTIONS	 -1	 	TOTAL	
PERIOD ENDING	TOTAL EARNINGS	F.I.C.A.	WITHHOLDING U.S. INC TAX	STATE TAX	MEDICARE				DEDUCTIONS	NET PAY
		l		1			 	 	J	

A3

Founded 1849

THE SANTA FE NEW MEXIC

NEW MEXICO OIL CONSERVATION DIVISION ATTN: ED MARTIN 2040 S. PACHECO SANTA FE, NM 87505

Any interested person may obtain further infor-

mation from the Oil Con-

ments to the Director of

plan application may be

AD NUMBER: 200849 ACCOUNT: 56689 P.O.#: 01199000033 LEGAL NO: 69120 1 time(s) at \$ 77.58 176 LINES AFFIDAVITS: 5.25 TAX: 5.18 TOTAL: 88.01

APR 1 1 2001

ATTACK ON THE

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO COUNTY OF SANTA FE

I, MM Welloman being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #69120 a copy of which is hereto attached was published in said newspaper 1 day(s) between 04/10/2001 and 04/10/2001 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 10 day of April, 2001 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/_ LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 10 day of April A.D., 2001

2. Harding Notary 11/23/03 Commission Expires __

NOTICE OF PUBLICATION

STATE OF NEW MEXICO Servation Division and ENERGY, MINERALS may submit written com-AND NATURAL ments to the Director of RESOURCES DEPART. the Oil Conservation Divi-MENT sion at the address giv-OIL CONSERVATION en above. The discharge DIVISION viewed at the above ad-

Notice is hereby given dress between 8:00 that pursuant to the New a.m. and 4:00 p.m., Mexico Water Quality Monday through Friday. Control Commission Reg. Prior to ruling on any ulations, the following proposed discharge plan discharge plan applica or its modification, the tion has been submitted Director of the Oil Conto the Director of the Oil servation Division shall Conservation Division, 1220 S. St. Francis, Santa Fe, New Mexico 87505, Telephone (505). allow at least thirty (30) days after the date of publication of this notice during which comments 476-3440:

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be requested by any in-

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for public hearing shall set forth the reasons

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of April 2001.

information presented at

the hearing.

STATE OF NEW MEXICO OIL CONSERVATION DIVI-SION

LORI WROTENBERY, Director Lega! #69120 Pub. April 10, 2001

www.sfnewmexican.com

202 East Marcy Street, Santa Fe, NM 87501-2021 • 505.983.3303 • fax: 505.984.1785 • P.O. Box 2048, Santa Fe, NM 87504-2048

Ford, Jack

From:	Martin, Ed
Sent:	Wednesday, April 04, 2001 1:44 PM
To:	'Santa Fe New Mexican'
Cc:	Ford, Jack; Anaya, Mary
Subject:	Legal Notice

Attn: Betsy Perner

Please publish the attached notices <u>one time</u>, no later than April 6, 2001. Upon completion, please send to this office: 1. Publisher's affidavit 2. Invoice

Our purchase order number for the New Mexican is: 01199000033

W W Publ. Notice GW-202

Publ. Notice GW-232.doc

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held.

A hearing will be held if the director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 4th day of April, 2001.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

LORI WROTENBERY, Director

SEAL



P.O. Box 1613 703 E. Clinton Suite 102 Hobbs, New Mexico 88240 505/397-0510 Fax 505/393-4388 www.sesi-nm.com

Safety & Environmental Solutions, Inc.

March 27, 2001

Mr. Jack Ford NMOCD 1220 S. St. Francis Drive Santa Fe, New Mexico 87505



RE: ProKem Discharge Plan Application

Dear Mr. Ford:

As per our phone conversation, I've enclosed the first page to the discharge plan application, on behalf of ProKem, Inc. Being that no other changes were necessary, this stands as the application for renewal.

If you have any questions, or I can be of further assistance please contact me at (505) 397-0510.

Sincerely,

Boh alla

Bob Allen CHMM, REM, CET, CES President

DISCHARGE PLAN APPLICATION

1. **Type of Operation**

Blending, sales and application of oilfield treating chemicals for producing wells.

2. Name of Operator or Legally Responsible Party and Local Representative

ProKem, Inc. P.O. Box 1506 2400 South Main Lovington, New Mexico88260 Contact Person: Gerald Phillips 505-396-7433

3. Location of the Discharge Plan Facility

SE/4, NW/4 Section 15 Township 16S Range 36E, Lea County, New Mexico

4. Landowners

Pro-Kem, Inc. 2400 South Main Lovington, New Mexico 88260 505-396-7433

5. Facility Description

Facility has had no additions or modifications since the previous application.

6. Materials Stored or Used at the Facility

Pro-Kem stores and uses the same materials as listed on the previous application.

7. Sources and Quantities of Effluent and Waste Solids Generated at the Facility

There have been no changes to the quantities of effluent and Waste Solids generated at the facility.

8. <u>Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures</u>

No change in procedures since the previous application.

9. <u>Proposed Modifications</u>

There are no proposed modifications to the facility or this plan.

10. Inspection, Maintenance and Reporting

11. Spill/Leak Prevention and Reporting Procedures (Contingency Plans)

Spills or leaks will be handled according NMOCD Rule116 and WQCC Section 1203 for spill reporting purposes.

12. <u>Site Characteristics</u>

No changes in site characteristics.

13. Other Compliance Information

Spills or leaks will be handled according NMOCD Rule116 and WQCC Section 1203 for spill reporting purposes.

14. <u>Certification</u>

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Gerald Phillips Signature: Derald Phillipi

Title: President Date: March 28, 2001







NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

Jennifer A. Salisbury CABINET SECRETARY

Oil Conservation Div. Environmental Bureau 2040 S. Pacheco Santa Fe, NM 87505

March 13, 2000

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT NO. 5050 9306</u>

Mr. Gerald Phillips Pro-Kem, Inc. P.O. Box 1506 Lovington, New Mexico 88260

RE: Discharge Plan Renewal Notice for Pro-Kem, Inc. Facility

Dear Mr. Phillips:

Pro-Kem, Inc. has the following discharge plan which expires during the current calender year.

GW-202 expires 8/23/2000 – Lovington Facility

WOCC 3106.F. If the holder of an approved discharge plan submits an application for discharge plan renewal at least 120 days before the discharge plan expires, and the discharger is not in violation of the approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge plan continued under this provision remains fully effective and enforceable. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]

The discharge plan renewal application for each of the above facilities is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of \$50.00 plus a flat fee equal to one-half of the original flat fee for oil field service company facilities. The \$50.00 filing fees is are be submitted with the discharge plan renewal applications and are nonrefundable.

Please make all checks payable to: NMED-Water Quality Management and addressed to the OCD Santa Fe Office. Please submit the original discharge plan renewal application and one copy to the OCD Santa Fe Office and one copy to the OCD Hobbs District Office. Note that the completed and signed application form must be submitted with your discharge plan renewal request. (A copy of the discharge plan application form is enclosed to aid you in preparing the renewal application. A complete copy of the regulations is also available on OCD's website at www.emnrd.state.nm.us/ocd/).

Mr. Gerald Phillips March 13, 2000 Page 2

If the above sited facility no longer has any actual or potential discharges and a discharge plan is not needed, please notify this office. If the Pro-Kem, Inc. has any questions, please do not hesitate to contact me at (505) 827-7152.

Sincerely,

Roger C. Anderson Oil Conservation Division

OCD Hobbs District Office cc:



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State of New Mexico Energy, Minerals and Natural Resources Departmentor ERED

7/9

į		OIL CONSERVATI P.O. Box	ION DIVISION 2088	JUN 07 1995
<u> </u>	VV LVA	Santa Fe, NM	M 87501	
	DISCHARGE PL. (Refer to	AN APPLICATION FOR	R OILFIELD SERVIO	CE GHCMSPYPES Division
I.	Blending TYPE: for prod	, sales and appliculation of the second s	cation of oillie	
II.	OPERATOR:	PRO-KEM, INC.	(5	505) 396-7433
	ADDRESS:	P O BOX 1506,	2400 SOUTH MAIN,	LOVINGTON NM 88260
	CONTACT PERSO	ON: <u>GERALD PHILLI</u>	PS	PHONE: <u>396-7433</u>
III.	LOCATION: <u>SE</u> / Submit	4 <u>NW</u> /4 Section <u>15</u> large scale topographic	Township <u>16S</u> map showing exact lo	Range <u>36E</u> cation.
IV.	Attach the name as	nd address of the landov	wner of the disposal f	facility site.
V.	Attach description on the facility.	of the facility with a diag	ram indicating locatio	n of fences, pits, dikes, and tanks
VI.	Attach a descriptio	n of all materials stored	or used at the facili	y.
VII.	Attach a descriptio volume of waste wa	n of present sources of ater must be included.	effluent and waste so	olids. Average quality and daily
VIII	Attach a descriptio	n of current liquid and s	solid waste collection	/treatment/disposal procedures.
IX	Attach a descriptio	n of proposed modificati	ons to existing collect	ion/treatment/disposal systems.
X.	Attach a routine in	spection and maintenan	ce plan to ensure per	mit compliance.
XI.	Attach a contingen	cy plan for reporting an	d clean-up of spills o	r releases.
XII.	Attach geological/ adversely impact fr	hydrological evidence de esh water. Depth to an	emonstrating that dis d quality of ground v	posal of oil field wastes will not vater must be included.
XIII.	Attach such other rules, regulations a	information as is necess nd/or orders.	ary to demonstrate c	ompliance with any other OCD
XIV.	CERTIFICATION I hereby certify th correct to the best	at the information subn of my knowledge and b	nitted with this appli elief.	cation is true and
	Name: <u>GERALD</u>	PHILLIPS	Title:	PRESIDENT
	Signature: <u>Re</u>	ald Phillin	····	Date: 5/24/95

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.



PRO-KEM YARD AND OFFICE

IN LOVINGTON, LEA COUNTY, NEW MEXICO Latitude: North 32 degrees 55 minutes 32 seconds Longitude: West 103 degrees 20 minutes 36 seconds





Bob Carter City Manger City of Lovington Lovington, N.M. 88260

May 23, 1995

Dear Mr. Carter,

We at Pro-Kem, Inc. of Lovington, New Mexico request permission to dispose minute quantities of waste into the city sewer system.

These wastes consist of the resulting fluids from chlorides tests: one or two drops of potassium chromate, 2-18 mililiters of silver nitrate and 1-6 ounces of oil field produced water. The number of these tests performed at this site range from 0-6 per week.

Thank you for your consideration on this matter.

Sincerely,

Zerold Philli

Gerald Phillips President/manager



CITY OF LOVINGTON

LOVINGTON, NEW MEXICO 88260

214 South Love PO Box 1269 BUS: (505) 396-2884 FAX: (505) 396-6328

May 23, 1995

Gerald Phillips Pro-Kem, Inc. Box 1506 Lovington, NM 88260

Dear Gerald:

We are in receipt of your letter of May 23rd requesting permission to dispose of minute quantities of waste into the City sewer system. You stated that these wastes would consist of one or two drops of potassium chromate, 2-18 mililiters of silver nitrate and 1-6 ounces of oil field produced water with a frequency of 0-6 times per week.

If these are held within the ranges specified, the City of Lovington does hereby grant permission for disposal of these wastes in our sewer system.

Sincerely,

Bob G. Carter City manager

BGC:jgr

				CUS	
	E P A MAN	IFEST REC	ORD	NO.	29599
E & E ENTERPRISES P.O. Box 683 Brownfield, Tx 79316	& E ENTERPRISESNON-HAZARDOUSO. Box 683WASTE MANIFESTownfield, Tx 79316Vante manifest				
Please print or type.					
SENERATOR'S MAILING ADDRESS	PICK-UP LOC	ATION		ACCOUNT	
Pro Kem Inc		·	<u></u>	NO:	······································
2400 5	main		; 		
Laur Jour Mm.				P.O. NO	
GENERATOR'S PHONE NO. 1555	396-7	433		EPA ID NO	
DESCRIPTION OF NON-HAZARDOUS	S WASTE:	·			
Type of Waste (Include US DOT Shipp Hazard Class, and ID Number, if applic	ing Name, able)	QUANTITY	Type QTY*	Unit Cost	Total Cost
NON-HAZARDOUS USED OIL		100	6	NIC	
NON-HAZARDOUS USED OIL FILTER	IS				
USED ANTI-FREEZE					
*G=Gallons; P=Pounds; T=Tons; D=[Drums	**************************************	•	TOTAL CHARG	iE \$
Additional Descriptions of Materials, if	necessary				
Special Handling Instructions and Add	litional Information		,,,,		
GENERATOR CERTIFICATION: I hereby shipping name and are classified, packed, r applicable international and national gove	v declare that the conte narked, and labeled, an rnment regulations, in	ents of this consig ad are in all respect cluding applicable	nment are fui s in proper co s state regulat	l and accurately ndition for transp ions.	described above by proper ort by highway according to
Print Name of Generator	Sig	nature of Gene	rator	15/10 1	MO. DAY YR.
Por K, Phillips		Peter K	, Ph.	les	51195
DESIGNATED FACILITY: TRANSPOR	RTER, STORER ANI	D TREATOR OF	MATERIAL	S .	
E & E ENTERPRISES	Phone	: (806) 637 933	36	US EPA I	D NO TXD 982 75 6868
Brownfield, TX 79316	(TWC:	(512) 463 772	7)	TX RR NO	D 000013747C
Transporter Acknowledgement of Rec Print Name of Hauler	ceipt of Materials				MO. DAY YR.
Robert Gonzale	2	bober y	Some	G	51195
Discrepancy Space			<u> </u>		
Facility Certification of Receipt of Ma	terials Covered by th	nis Manifest (ex	cept as note	d above)	
Print Name of Facility Operator	SI	gnature of Facil	ity Operator		MO. DAY YR.
	Generator VELL				Gaparator Conv
The COPT - Mail to C				FINK COFT	- Generator copy

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Oilfield Service Facilities

Part VI. Form (Optional)

cement etc.)

<u>Materials Stored or Used at the Facility</u> - For each category of material listed below provide information on the general composition of the material or specific information (including brand names if requested), whether a solid or liquid, type of container, estimated volume stored and location. Submit MSD information for chemicals as requested. Use of this form is optional, but the information requested must be provided.

Name	General Makeup or Specific Brand Name S (if requested) I	Solids(S) or Liquids(L)?	Type of Container (tank drum, etc.)	Estimated Volume Stored	Location (yard, shop, drum storage, etc.)
 Drilling Fluids (include general makeup & types special additives [e.g. oil, chrome, etc.]) 	N/A	······································		,	
2. Brines - (KCL NaCL etc	.) N/A				\$ \$
3. Acids/Caustics (Provide names & MSD sheets)	Hydroxy Acetic Acid Glacial Acetic Acid Critic Acid	L L S	DRUM DRUM 50 1.b bag	55 gallon 55 gallon 150 lbs	YARD YARD Storage
4. Detergents/Soaps	Inc-725 Inc-1801 Inc-1850 Inc-1875	All are Liquid	All in Drums	55 gallons 110 gallons 55 gallons 55 gallons	Yard and Shop
5. Solvents & Degreasers (Provide names & MSI sheets)	Inc-1895 BFL-9454 Heavy Aromatic Naptl Toluene Isopropyl Alcohol Methanol	ha L L L L	TANK TANK TANK TANK	55 gallons 55 gallons 10,000 gallons 500 gallons 400 gallons 2000 gallons	Cement Containment in Yard
6. Paraffin Treatment/ Emulsion Breakers (Provide names & MSI	Arflow-168 OFC-1535 Inc-2512	Allare	All in	55 to 110 gallons of each different	Yard and
FC-1057 INC-2102 INC- FC-1085 INC-2117 INC- NC-2100 INC-2122 INC- 7. Biocides (Provide name	2133 INC-2155 2141 INC-2160 2143 INC-2160 2143 INC-2182 2143 INC-2182	Liquid	Drums	chemical	Shop
& MSD sheets)	N/A				
8 Others - Include atta-	Ammonium				Storage
liquids & solids, e.g.	Bicarbonate	S	50 lb bags	500 lbs	Shed

DISCHARGE PLAN APPLICATION

Oilfield Service Facilities

Part VII. Form (Optional)

<u>Sources and Quantities of Effluent and Waste Solids Generated at the Facility</u> - For each source include types of effluents (e.g. salt water, hydrocarbons, sewage, etc.), estimated quantities in barrels or gallons per month, and types and volumes of major additives (e.g. acids, biocides, detergents, degreasers, etc.). Use of this form is optional, but the information requested must be provided.

	Waste Type	General Composition and Source (solvents from small parts cleaning, oil filters from trucks, etc.)	Volume Per Month (bbl or gal)	Major Additives (e.g degreaser fluids from truck washing, soap in steam cleaners)
1.	Truck Wastes (Describe types of original contents trucked [e.g. brine, produced water, drilling fluids, oil wastes, etc])	N/A	· · · · · · · · · · · · · · · · · · ·	
				! ۶
2.	Truck, Tank & Drum Washin,	g Long Star Drum Co 2502 Marco Odessa TX 79760		
		Pick up, cleaned and r	econditioned al.	l drums
3.	Steam Cleaning of Parts, Equipment, Tanks	N/A		
4.	Solvent/Degreaser Use	N/A		
F	2			

5. Spent Acids, Caustics, or Completion Fluids (Describe)

	Waste Type	General Composition and Source (solvents from small parts cleaning, oil filters from trucks, etc.)	Volume Per Month (bbl or gal)	Major Additives (e.g degreaser fluids from truck washing, soap in steam cleaners)	
6.	Waste Slop Oil	N/A			
	•••				
7.	Waste Lubrication and Motor Oils	E & E ENTERPRISES P O Box 683 Brownfield, TX 79316	5 gallons	N / A	
			\$		
8.	Oil Filters	E & E ENTERPRISES P O Box 683 Brownfield TX 79316	6 filters every three months	N / A	
9.	Solids and Sludges from Tanks (Describe types of materials [e.g. crude oil tank bottoms, sand, etc.])	N/A		۹ ۶	
10.	Painting Was tes	N/A	:		
11.	Sewage (Indicate if other wastes mixed with sewage; if no commingling, domesti sewage under jurisdiction of the NMEID)	One or two drops of potassium chromate 2-18 mililiters of silver nitrate and 1-6 ounces of oilfield produced water. Number of test 0-6 per week. Lity of Lity			
12	. Other Waste Liquids (Describe in detail)	Crude oil samples are disposed at the well site after testing.			
13	. Other Waste Solids (Cement, construction	Waste drums are picked up and disposed of by Lone Star Drum Co., Odessa, TX.			

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materials, used drums)

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Oilfield Service Facilities

Part VIII. Form (Optional)

<u>Summary Description of Existing Liquid and Solids Waste Collection and Disposal</u> - For each waste type listed in Part VII, provide summary information about onsite collection and disposal systems. Information on basic construction features, specific descriptions, and wastewater schematics should be provided as required in the Guidelines. The use of this form is optional, but the summary information requested must be provided.

Waste Type		Tank(T)/ Drum(S)	Floor Drain/(F) Sump(S)	Pits- Lined(L) or Unlined(U)	Onsite Injection Well	Leach Field	Offsite Disposal
1.	Truck Wastes	None		·.			
2.	Truck, Tank and Drum Washing	Trucks We do r	(exterior) lo not clean tank	ocal car was s. Drums ar	h. e picked u	ıp	۹ ۶
з.	Stream Cleaning of Part Equipment, Tanks	by Lone 25 , None	e Star Drum Co	o, 2502 Marc	o, Odessa	TX 79760	` ,
4.	Solvent/Degreaser Use	None			·.		
5.	Spent Acids, Caustics, or Completion Fluids	None					
б.	Waste Slop Oil	None					

Waste Type	Tank(T)/ Drum(S)	Floor Drain/(F) Sump(S)	Pits- Lined(L) or Unlined(U)	Onsite Injection Well	Leach Field	Offsite Disposa
7. Waste Lubrication and Motor Oils	E	& E Enterpri	ses, Brownfi	ield TX		
Oil Filters	E	& E Enterpri	ses, Brownfi	ield TX		
Solids and Sludges from Tanks	Nc	one	·	4		
0. Painting Wastes	N /	Ϋ́Α				و کو
1. Sewage	Ci	ty of Loving.	ton, NM			
2. Other Waste Liquids						
13. Other Waste Solids	F1 di	oor sweep fo. sposed by Sa 10 Mi	r small spil fety-Kleen 607 WCR 127 dland TX 79	lls is pro 9711	vided and	



4500 + Office 48' -40-+ Blending Plant (f-27'-Emty Storage TANKS Forfuture use PLANS FOR future drum STORAGE: 0000 00 D 00 D 000 New drum Storage FOUR concrete containments 10 wide × 50 'long with curds. 0000 147 DRY STORAGE Area USED Motor Oil TRuckLonding ALLA Ket Bulk TANK STORAGE 5 ned Emty Storage TAnks DRUM STORAGE FOR for future use 170



339DewAste Drum Safety Kleen 3391 Absorbent 3391 Safety Kleen ٩. Blending AREA LAB AREA . Blending Plant



MATERIAL SAFETY DATA SHEET

IDENTIFICATION

Name Hydroxyacetic Acid, 70% solution technical Synonyms Glycolic acid; hydroxyethanoic acid CAS Name Acetic Acid, hydroxy-I.D. Nos./Codes NLOSH Access No. MC5250000 Wiswesser Line Notation QVIQ Manufacturer/Distributor E. I. du Pont de Nemours & Co. (Inc.) Address Milmington, DE 19898 HAZARDOUS COMPONENTS Material(s) Hydroxyacetic Acid 70 PHYSICAL DATA Boiling Point, 760 mm Ha 112°C (234°F) Specific Gravity 1.3 (Water = 1)Vapor Density Vapor is water 100% % Volatiles by Wt. 30% (Water) ~ 2 Form Appearance Color Liquid Clear

Method

pH Information 0.5 at 25°C (77°F)

FIRE AND EXPLOSION DATA

Flash Point

Will no burn

Flammable Limits in Air, % by Vol.

Chemical Family Organic Acid, aqueous solution CAS Registry No. 79-14-1 Formula: HO-CH, -COOH

Product Information and Emergency Phone (302) 774-2421 Transportation Emergency Phone (800) 424-9300

Approximate %

Melting Point

 $10^{\circ}C_{-}(50^{\circ}F)$ Vapor Pressure \alpha21 mm Hg @ 25°C (77°F); \A4 mm Hg @ 37.7°C
(100°F) (estimated values for water vapor) Solubility in H₂O Evaporation Rate (Butyl Acetate = 1) Odor Light Amber Mild-like burnt sugar **Octanol/Water Partition Coefficient** log P =-1.11

Autoignition Temperature

Upper

Fire and Explosion Hazards

Contact with metals may release flammable hydrogen gas.

Extinguishing Media

10

Any media appropriate for the type of fire in which hydroxyacetic is involved.

Special Fire Fighting Instructions

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with a iterial or in any process. The information set forth herein is furnished free of charge and is hased on technical data that Du Pont believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are ordivide our control, we make no warranties, express or implied, and assume no liability in conwith any use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to intringe any patents

Lower

Stable Incompatibility Reacts with metals, oxidizing agents (such as strong nitric acid), cyanides and sulfides to produce hydrogen, NO_X, HCN, or H₂S gases, respectively. Decomposition

Polymerization No hazardous polymerization is known

HEALTH HAZARD INFORMATION

Exposure Limits None established

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Routes of Exposure and Effects May cause eye and skin burns.

(See note below)

FirstAid in case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Call a physician. If swallowed, drink milk, raw egg white, mucilage or gelatin solution. If these are not available, drink large quantities of water. Call a physician.

PROTECTION INFORMATION

Ventilation

Personal Protective Equipment Chemical splash goggles and rubber gloves. Also, rubber acid suit if there is reasonable possibility of contact.

Other

DISPOSAL PROCEDURES

Aquatic Toxicity

Spill Leak or Release Neutralize with lime or soda ash. Flush spill area with plenty of water.

Waste Disposat Comply with Federal, State and local regulations. If approved, may be neutralized with lime or soda ash and flushed to wastewater treatment system.

SHIPPING PRECAUTIONS

Transportation DOT Hazard Classification = Not regulated. Shipping Containers

Railroad tank cars, tank trucks, druws, sample bottles. Storage Conditions

Keep in well ventilated area. Protect bulk storage area from sparks and flame. Keep packages tightly closed. Store above 10°C (50°F) freezing point. REFERENCES AND ADDITIONAL INFORMATION

Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. For more information, refer to Du Pont Hydroxyacetic Acid Data Sheet.

NOTE: Hydroxyacetic acid 70% has an LD₅₀ (rats) of 4240 mg/kg. This product is registered under FIFRA (EPA Reg. Lo. 352-304-AA) and pursuant to EPA regulations, hydroxyacetic acid container labels carry the statement DATE: "May be harmful or fatal if swallowed".



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E- 37368

Ashland Chemical Company

MATERIAL SAFETY DATA SHEET

DIVISION OF ASHLAND OIL INC

P.O. 80X 2219, COLUMBUS, OHIO 40216 - (614) 8H9-0300



THIS DEFINITION PAGE IS INTENDED FOR USE WITH MATERIAL SAFETY DATA SHEETS SUPPLIED by the Abhland Chemical Company. Questions concerning these sheets should be directed to the environmental and occupational safety department.

SECTION I PRODUCT IDENTIFICATION

PRODUCT CLASS: GENERAL OR GENERIC

HAZARDOUS CLASSIFICATION: PRODUCT MEETS DOT CRITERIA FOR HAZARDS LISTED.

SECTION_II HAZARDOUS_COMPONENTS

A HAZARDOUS INGREDIENT IS ONE WHICH MEETS ONE OR MORE OF THE FOLLOWING CRITERIA:

٤. IT IS LISTED IN THE ANNUAL REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUB-STANCES, OR IT IS KNOWN TO BE TOXIC WITHIN_THE PARAMETERS OF THAT REGISTRY.

ANDZOR

IT HAS A OSHA ESTABLISHED, B-HOUR TIME-WEIGHTED AVERASE PERMISSABLE EXPOSURE LIMIT (PEL) OR ACCEPTABLE CEILING (C), OR AN AMERICAN CONFER-ENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS' (ACGIH) THRESHOLD LIMIT VALUE, AND BY NATURE OF THE PRODUCT OR ITS KNOWN USE, IT IS LIKELY TO BECOME AIPBORNE. 2.

ANDZOR

- IT CONTRIBUTES TO ONE OR MORE OF THE FOLLOWING HAZARDS OF THE PRODUCT.
 - FLASHPOINT BELLOW 200 DEG F (CC), OR Subject to spontaneous healing or decomposition.
 - CAUSES SKIN HURNS, (DOI) FR .
 - С. STRONG OXTOBZING AGENT, (DOT)
 - ΰ. SUBJECT TO HAZAPHOUS POLYMERIZA-TTON

EACH INGREDIENT MEETING ONE OR MORE OF THE ABOVE CRITERIA IS LISTED IN SECTION IT IF FRESENT AT A LEVEL AT LEAST GREATER THAN ONE PERCENT. INGREDIENTS WHICH ARE CLAINED TO BE CARCINGGENS, TERATOGENS, MUTAGENS, OR CAUSATIVE AGENTS OF OTHER REPRODUCTIVE DISORDERS ARE LISTED IF KNOWN OR BELIEVED TO BE PRESENT, PROVID-ED THAT THE DATA SUPPORTING SUCH CLAIMS TS CONSIDERED VALUE.

EACH HAZAPDOUS INGREDIENT IS LISTED BY CHEMICAL, GENERIC, OF PROPRIETARY NAME. Its level in the product is expressed as 12 or less, 1-102, 10-302, 30-602, or Greater than 602, or by other means.

SECILON III PHYSICAL DAIA

INITIAL BOILING POINT - IF LIQUED AF

MAPOR PRESSURE - IN LIQUID AT ON DEG F OR WHICH SUBLIMES.

FOR VOLATILE PORTION OF MAPOR DENSITY

SPECIFIC OPAVITY IF SPECIFIC GRAVITY OF PRODUCT IS NOT KNOWN, INDICATED AS (1, 11, OR)1.

<u>PERCENT VOLATILES:</u> PERCENTAGE OF MATER-IAL WITH INITIAL BOILING POINT BE-LOW 425 DEG F.

EVAPORATION RATE: INDICATED AS FASTER OR SLOWER THAN ETHYL ETHER, UNLESS STATED.

PRODUCT_IDENIILIGATION

FLASH POINT - CLOSED CUP.

LOWER EXPLOSION LIMIT , INDICATED FOR COMPONENT WITH LOWEST VALUE.

- HAZARDOUS DECOMPOSITION PRODUCTS: KNOWN HAZARDOUS PRODUCTS RESULTING FROM HEATING, BURNING, ETC., OR REACT-ED RAW MATERIALS WHICH MAY ARISE THROUGH HEATING, BURNING, ETC.
- SPECIAL FIREFIGHTING PROCEDURES: INDIC-ATES EQUIPMENT TO PROTECT FIREMEN FROM TOXIC PROCEDURES OF COMBUST-ION OR IF WATER IS NOT TO BE USED.

UNUSUAL FIRE AND EXPLOSION HAZARDS: HAZARDS NOT COVERED BY OTHER SEC-tions of this report are shown HEPE

HEALTH HAZARD DATA

RECIPIENTS OF THIS DATA SHEET BHOULD CONSULT THE OSHA SAFETY AND HEALTH STANDARDS (29 CFR 1910), PARTICULARLY SUBPART 5 - OCCUPATIONAL HEALTH AND EN-VIRONMENTAL CONTROL, AND SUBPART I -PERSONAL PROTECTIVE EQUIPMENT, FOR GEN-ERAL GUIDANCE ON CONTROL OF POTENTIAL OCCUPATIONAL HEALTH HAZARDB.

<u>PERMISSIBLE EXPOSURE LEVEL</u>: OSHA ESTAR-Lished Pel--if None Availarle, Adopted Value.

EFFECTS OF OVEREXPOSURE: GIVEN IN DEN-UPAL TERMS: LOCAL AND SYSTEMIC Sefects to the Eves, Skin, if Mat-efficies inhibled, Unless Not Applicable que to physical form of PRODUCT

REACTIVITY DATA

MAZARDQUS FOLYMERIZATION: CONDITIONS TO Avoit Hazardoug Polymerization Resulting in a large release of Enfrgy.

STABLLIN: CONDITIONS TO AVOID IF UN-Stable Under Normal Circumstances.

INCOMPATIOILITY: MATERIALS TO AVOID.

SECTION VII STILL OF LEAK PROCEDURES

REASONABLE PRECAUTIONS TO BE TAKEN AND THE METHODS OF CLEAN-UP.TO BE USED IN THE EVENT OF SPILLAGE OF THE PRODUCT. CONSULT CEDERAL, STATE AND LOCAL REGULA-TIONS FOR ACCEPTED PROCEDURES AND ANY REPORTING OF NOTIFICATION REQUIREMENTS.

SECTION VIII PROTECTIVE EQUIPMENT TO BE USED

THIS BECTION INDICATES PROTECTIVE EQIUP-MENT TO BE USED WHEN HANDLING THE PRODUCT.

SECIION IX SPECIAL PRECAULIONS OR OTHER COMMENTS

THIS SECTION IS TO COVER ANY RELEVANT Points not previously mentioned.

ADDITIONAL COMMENTS

ASHLAND WISHES TO INFORM YOU THAT SERIOUS ACCIDENTS HAVE RESULTED FROM THE MISUBE OF "EMPTIED" CONTAINERS (DRUMS, 1 AND 5 GALLON PAILS, ETC.). REFER TO BECTIONS IV AND IX.

WE RECOMMEND, THAT CONTAINERS BE EITHER PROFESSIONALLY RECONDITIONED FOR REUSE BY CERTIFIED FIRMS OR PROPERLY DISPOSED OF BY CERTIFIED FIRMS TO HELP REDUCE THE POSSIBILITY OF AN ACCIDENT, DISPOSAL OF CONTAINERS BHOULD BE IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS. "EMPTY" DRUMS SHOULD NOT BE GIVEN TO INDIVIDUALS.



72-62-7820-01		Ashland Che Division of a 0. 80X 2219. columbus.	mical Compan SHLANO OIL, INC. OHIO 43216 • (514) 81	00,0013	Ashland。
DATA SHEET		24-HOUR EMERGENCY	TELEPHONE (606) 3	324-1133	
001921 This	CITRIC MSDS COMPLIES WITH	AC ANH USP/ 29 CFR 1910.1200 (FCC FNGR10)0# MUNICATION STANDARD)	Page: 1
**************************************	**************************************	**************************************	(************	********	******
	2-9 DS	05 50 039	2509470-	Data Sheet N Prepared: Supported:	o: 0003677-003 12/12/86 03/04/86
108 Ê. 67TH STRE ODESSA	ĔΤ ΤΧ 79762	PRODUCT: INVOICE: INVOICE DA TO: DELTA I	3191063 323208 TE: 03/07/88 DISTRIBUTORS		
ATTN: PLANT MGR.	/SAFETY DIR.	DDESSA	67TH STREET	TX 79762	
	SECTION	HI-PRODUCT N	IDENTIFICAT	TION CONTRACTOR OF THE STATE	
General or Generic ID:	ORGANIC ACID				
DOT Hazard Classificati	on: NOT APPLICABLE			ing and the second second of the second second second	หารถางในก็ไม่เสรา) แรกสาวยาติเสราร์การระบารสาว
			UMRUNENIS	ED IN THIS SECTION	
IF P	SEE D	EFINITION PAGE FO	R CLARIFICATION	ED IN THIS SECTION	
INGREDIENT		<u> 2 (by WT)</u>	PEL	TLV	Note
CITRIC ACID CAS #: 77-92-9		100			(1)
<u>Notes</u> :					
(1) PEL/TLV NOT ESTABL	ISHED FOR THIS MATE	RIAL		a sa maanaa ah a	an and memory and the same start and and
Deiline Deint	NOT ADDI TOADI 5		Satura DA 14		
Vapan Prossure				<u> </u>	
Specific Vanor Density					······
Specific Gravity					1.542
					a 68.00 Deg F (20.00 Deg C)
Percent Volatiles	NOT APPLICABLE				
Evaporation Rate	NOT APPLICABLE				
	SECTION	FAIRERAND	200 SILUN AINI	FORMATIZION	
FLASH POINT NOT APPLIC	ABLE				
EXPLUSIVE LIFTI	NUT APPLICABLE		MTCAL		
HAZARDOUS DECOMPOSITION	PRODUCTS: MAY FORM	TOXIC MATERIALS:	• CARBON DIOXID	E AND CARBON MONOXIDE	, VARIOUS
HYDROCARBONS, ETC.					THE DOCTTIVE
PRESSURE DEMAND MC	DE WHEN FIGHTING FI	RES.	RATUS HITH A FU	LE TACLFILCE OFERATE	
SPECIAL FIRE & EXPLOSIC COPPER ETC. TO REL	IN HAZARDS: CAN REAC EASE HYDROGEN GAS W	T WITH CHEMICALLY HICH CAN FORM EXP	REACTIVE METAL LOSIVE MIXTURES	S SUCH AS ALUMINUM, 2 WITH AIR.	INC, MAGNESIUM,
	SEGI	HONE VEHIEALLI	HARAZARDAD/	AITA	
PERMISSIBLE EXPOSURE LE	VEL: NUI ESTABLISHE	D FOR PRODUCT. S	EE SECTION II.		
EVES - CAN CAUSE TRATTA	TTON				
SKIN - MAY CAUSE IRRITA BREATHING - OF DUST CAN IF SWALLOWED - BY NATUF SWALLOWED.	TION. CAUSE IRRITATION O CAUSE IRRITATION O RE OF PRODUCT PROBLE	F NASAL AND RESPI MS NOT EXPECTED,	RATORY PASSAGES BUT INDUSTRIAL	PRODUCTS ARE NEVER ME	EANT TO BE
FIRST AID: IF ON SKIN: THOROUGHLY	WASH EXPOSED AREA W	ITH SOAP AND WATE	R. REMOVE CONT	AMINATED CLOTHING.	LAUNDER
TE TN EVES FILM UTT	LARGE AMOUNTS OF MA	TER. I TETTNO LIDDE			
IF SHALLOWED: IMMEDIATE PLACING FINGER AT ATTENTION THEFT	ELY DRINK TWO GLASSE BACK OF THROAT. NEV	S OF WATER AND IN ER GIVE ANYTHING	DUCE VOMITING B BY MOUTH TO AN	BY EITHER GIVING IPEC/ UNCONSCIOUS PERSON. (AC SYRUP OR BY GET MEDICAL
IF BREATHED: REMOVE INT	DIVIDUAL TO FRESH AI	R.			
PRIMARY ROUTE(S) OF EN	<u>rry:</u>				

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72-62-7820-01	Ashland Chemical Company Division of Ashland oil, INC.	Achland		
MATERIAL SAFETY	P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333			
DATA SHEET	24-HOUR EMERGENCY TELEPHONE (606) 324-1133			
001921	CITRIC AC ANH USP/FCC FNGR100#	Page:		
	SECTION AV HEALITH HAZARD DATA (Continued)			
INHALATION, SKIN CONTAC	Т			
	SISSING SECTION AVI-REAGILVITY HOATA			
HAZARDOUS POLYMERIZATION: C	ANNOT OCCUR			

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Diff.

STABILITY: STABLE

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INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG ALKALIES., REACTIVE METALS SUCH AS ALUMINUM AND MAGNESIUM

MANY OF THE ASSOCIATION AVAIL-SPALL OR THEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: SWEEP UP MATERIAL FOR DISPOSAL OR RECOVERY.

LARGE SPILL: SHOVEL MATERIAL INTO CONTAINERS. THOROUGHLY SWEEP AREA OF SPILL TO CLEAN UP ANY RESIDUAL MATERIAL.

WASTE DISPOSAL METHOD:

SMALL SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

LARGE SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

RESPIRATORY PROTECTION: IF NEEDED USE A NIOSH/MSHA JOINTLY APPROVED DUST RESPIRATOR. (ASK YOUR SAFETY EQUIPMENT SUPPLIER)

VENTILATION; PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW LEVEL OF OVEREXPOSURE (FROM KNOWN, SUSPECTED OR APPARENT ADVERSE EFFECTS).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NEOPRENE, NITRILE RUBBER, POLYVINYL CHLORIDE

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

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CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED.SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

72-62-7820-01

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MATERIAL SAFETY DATA SHEET Ashland Chemical Company Division of Ashland Oil, INC.



Ashland,

24-HOUR EMERGENCY TELEPHONE (606) 324-1133

DEFINITIONS

This definition page is intended for use with Material Safety Data Sheets supplied by the Ashland Chemical Company. Recipients of these data sheets should consult the OSHA Safety and Health Standards (29 CFR 1910), particularly subpart G - Occupational Health and Environmental Control, and subpart I - Personal Protective Equipment, for general guidance on control of potential Occupational Health and Safety Hazards.

SECTION I PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: Chemical family or product description.

DOT HAZARD CLASSIFICATION: Product meets DOT criteria for hazards listed.

SECTION II COMPONENTS

Components are listed in this section if they present a physical or health-hazard and are present at or above 1% in the mixture. If a component is identified as a CARCINOGEN by NTP, IARC or OSHA as of the date on the MSDS, it will be listed and footnoted in this section when present at or above 0.1% in the product. Negative conclusions concerning carcinogenicity are not reported. Additional information may be found in Section V. Other components may be listed if deemed appropriate.

Identities of components listed generically are declared trade secret.

Exposure recommendations are for components, OSHA Permissible Exposure Limits (PELs) and American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) appear on the line with the component identification. Other recommendations appear as footnotes.

SECTION III PHYSICAL DATA

- BOILING POINT: Of product if known. The lowest value of the components is listed for mixtures.
- VAPOR PRESSURE: Of product if known. The highest value of the components is listed for mixtures.
- SPECIFIC VAPOR DENSITY: Compared to AIR = 1. If Specific Vapor Density of product is not known, the value is expressed as lighter or heavier than air.
- SPECIFIC GRAVITY: Compared to WATER = 1. If Specific Gravity of product is not known, the value is expressed as less than or greater than water.
- pH: If applicable.
- PERCENT VOLATILES: Percentage of material with initial boiling point below 425 degrees Fahrenheit.
- EVAPORATION RATE: Indicated as faster or slower than ETHYL ETHER, unless otherwise stated.

SECTION IV FIRE AND EXPLOSION DATA

FLASH POINT: Method identified.

- EXPLOSION LIMITS: For product if known. The lowest value of the components is listed for mixtures.
- HAZARDOUS DECOMPOSITION PRODUCTS: Known or expected hazardous products resulting from heating, burning or other reactions.

SECTION IV (cont.)

- EXTINGUISHING MEDIA: Following National Fire Protection Association criteria.
- FIREFIGHTING PROCEDURES: Minimum equipment to protect firefighters from toxic products of vaporization, combustion or decomposition in fire situations. Other firefighting hazards may also be indicated.
- SPECIAL FIRE AND EXPLOSION HAZARDS: States hazards not covered by other sections.
- NFPA CODES: Hazard ratings assigned by the National Fire Protection Association.

SECTION V HEALTH HAZARD DATA

- PERMISSIBLE EXPOSURE LIMIT: For product.
- THRESHOLD LIMIT VALUE: For product.
- EFFECTS OF ACUTE OVEREXPOSURE: Potential local and systemic effects due to single or short term overexposure to the eyes and skin or through inhalation or ingestion.
- EFFECTS OF CHRONIC OVEREXPOSURE: Potential local and systemic effects due to repeated or long term overexposure to the eyes and skin or through inhalation or ingestion.
- FIRST AID: Procedures to be followed when dealing with accidental overexposure.
- PRIMARY ROUTE OF ENTRY: Based on properties and expected use.

SECTION VI REACTIVITY DATA

- HAZARDOUS POLYMERIZATION: Conditions to avoid to prevent hazardous polymerization resulting in a large release of energy.
- STABILITY: Conditions to avoid to prevent hazardous or violent decomposition.
- INCOMPATIBILITY: Materials and conditions to avoid to prevent hazardous reactions.

SECTION VII SPILL OR LEAK PROCEDURES

Reasonable precautions to be taken and methods of containment, clean-up and disposal. Consult federal, state and local regulations for accepted procedures and any reporting or notification requirements.

SECTION VIII PROTECTIVE EQUIPMENT TO BE USED

Protective equipment which may be needed when handling the product.

SPECIAL PRECAUTIONS OR OTHER COMMENTS

Covers any relevant points not previously mentioned.

ADDITIONAL COMMENTS

Containers should be either reconditioned by CERTIFIED firms or properly disposed of by APPROVED firms. Disposal of containers should be in accordance with applicable laws and regulations. "EMPTY" drums should not be given to individuals. Serious accidents have resulted from the misuse of "EMPTIED" containers (drums, pails, etc.). Refer to Sections IV and IX.

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MATERIAL SAFETY		Ashland				
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		*******	*********	******		
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GUSTOM CHENCO P.O. Rox 1507 Midland,	TX 79701	05 DA LA 70 30 10 10 10	A DIA SHEET NO TEST REVIST ODUCT: JOJ VOICE: DOG VOICE: DIG CUSTOM CH KAGT UMY	326910- : 0000012-002 ON DATE: 03286-06063 3000 976 05206286 EMCO UA SERVICE ROAD		
ATIN: PLANT HGR.,	YSADETY DIR.		HTOLAND	TX 79701		
	SECTION I-PRODUC	TTDENTTE	TCATION			
GENERAL OR GENERIC ID: (DRGANIC ACID					
DOT HAZARD CLASSIFICATI	NN CORROSIVE (173.	2403 480	CONBUSTIBLE	C (173.115)		
	SECTION TI-	COMPONENT	5			
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	BECTION TITTE	NYSTON, I				
PROFERIN		• • <i>~</i> • • • • • • - • - •				
NOTLING POINT	FOR PRODUCT			244,00 DEC F (117,77 DEG C) 9 760,00 MMIIG		
VAPOR PRESSURE	FOR PRODUCT			11,00 MHHG 8 61,00 DEG (20,00 DEG C)		
SPECIFIC VAPOR DENSITY				HEAVIER THAN AIR		
SPECIFIC BRAVITY				1,049 A 60,00 DEG F (20,00 DEG C)		
PERCENT VOLATILES	••••••••••••			100.00%		
EVAPORATION RAIE	(N-BUTYL AGETATE	7 13		, 97		
5F	CTION IV-FIRE AND	EXPLOSION	INFORMATIO			
ELASH POINT (100)	1) (1)	0,00 DEG 77 DEG	r C)			
EXPLOSIVE LINIT (PRO		1.04	68 - 9.0X	UPPER - 19.9%		
EXITNGUISHING MEDIA - AL	COHOL FOAH OF WATE	R L,UC OB	UVBBON DIOX.	THE OR DRY CHEMICAL		
HAZARDOUS DECOMPOSITION Carbon Honoxide, V	I PRODUCTS: MAY LOG Arionador Hydrocariou	н тохіс м 5, асір у	ATERTALS:, - Apors, etc.	CARBON DIOXIDE AND		
FTREFIGHTING PROCEDURGE FACEFITCE DEERATED RODY PROTECTIVE GL	S: WEAR BELF-CONTAT D IN PREASURE-DEMAN OTHING WHEN FIGHTI	NED BREAT II OR OTHE NG FIRES.	HING APPARA R POSITIVE	TUS WITH A FULL Prebbure Mode and Full		
SPECTAL FIRE & EXPLOSION HAZARDS: VARORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG The ground or be hoved by venitlation and ignited by heat, filot lights, other flames and ignition sources at locations distant from material handling point.						
NEVER USE WELDING Product (Even Just Aciu reacts with a Mixtures with Air.	OR CUTTING FORCH C RESIDUED CAN TONI 1957 METALS TO PULC	N OR NEAR TE EXPLOS ASE HYDRO	TRUH CEVEN Ively. Gen Gas Whi	CH CAN FORM EXPLOSIVE		
REACTS VIOLENTLY I	4- 2 FLAMMARTLT VITH WATER	777-2	REVEIZALA	- 1		
	BECTION V-HE		DATA			
PERMISSIBLE EXPOSURE L	EVEL " ID"	ргн				
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EYEB - CAUSES SEVERE D	AMAGE AND EVEN BUI	NONEBB VER	RY RAPIOLY,	- 78 - 144-		
BREATHING - MIST CAN C EWALLOWING - REBULTS I	AUGE DAMAGE TO NAB/ N Severe damage to	AL AND REE Mucous M	BPIRATORY PA Embranes and	NRSACES. Deep tirgues. 4 (2)380		

CONTINUED ON PAGE: 2

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		Ashland,
DATA SHEET	24-HOUR EMERGENCY TELEPHONE (506) 324-1133	
" "	ACETIC ACID GLACIAL PP.57 TEC	PAGE: 2
	SECTION V-HEALTH HAZARD DATA (CONTINUED)	
TRST AID:		· · · · · · · · · · · · · · · · · · ·
IT ON SKIN: IMMEDIATEL MEDICAL ATTENTION NEFFORC RE-USE.	Y FLUSH EXPOSED AREA WITH WATER FOR AT U . Remove contampated clothing launder	. ĈANTAMINATEN, GET Contaminaten clothtni
TT EVES IMPEDIATEL LETING UPPER AND TE PHYSICIAN IS N	Y FLUSH WITH LARGE AMOUNTS OF WATER FOR Lower Lids Occasionally, Get immediate of immediately available, continue flush	AT LEAST 15 MINUTES, E MEDICAL ATTENTION. HING WITH WATER.
TE BWALLOWED DO NOT T Throat, Dilute n Get Medical Atten	AL ANTIOUTE. NDUCE VOMITING VOMITING WILL CAUSE FU Y GIVING WATER GIVE MILK OF MAGNESIA. Jion Immediately.	RTHER DAMAGE TO THE Keep Warm, quiet
IF BREATHED: IF AFFECT Difficult, admint Respiration. Keep	ED, REMOVE INDIVIDUAL TO ERESH AIR, IF I Ster Oxygen, IF Briathing has stopped G Person Warm, Outst and get heoloal atte	RREATHING IS LVC ARTIFICIAL CNTION
·····	SECTION VI-REACTIVITY DATA	
HAZARDQUE POLYMERIZATT	ONE CANNOT OCCUR	
THCOMPATIENT ITY: AVOID STRONG MUNERAL AC	D CONTACT WITH , STRONG OXIDIZING AGENIS 105.	., STRONG ALKALIES ,
	SECTION VII-SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN C	NASE MATERIAL IS RELEASED OR SPILLED:	
SMALL SPYLL, COVER WIL	TE SODA ASH. MIX AND SODOP INTO A BEAKE	R OF WATER.
LARGE SPILL: PERSONS N OF SPILL UNTIL CI Spill to prevent NC TAKIN UP ON 54 AND SHOVELED INTO	NOT WEARING PROTECTIVE EQUIPMENT SHOULD .EAN-UP HAS BEEN COMPLETED. STOP SPILL A .Spreading, pump liquid to galvage tank. NND, clay, earth. Floop Argorifni, or ot 3. Containers.	BE EXCLUDED FROM AREA T GOURGE, DIKE AREA O Rematning Ligutd May HER Angorbent Materia
WASTE DESPOSAL METHOD		
SHALL SPILL - FLUSH DO	- WN DRAIN WITH LARGE AMOUNTS OF WATER IN A TIONS	ACCORDANCE WITH
LARGE SPILL DESIROY	NA PLOAD THOINERVILON	
	ECTION VIIT-PROFECTIVE EQUIPMENT TO DE L	JSED
RESPIRATORY PROFECTIO NIOSH/MSHA JOINI PROPER ENVIRONME RESPIRATORS UNDE ENGINEERING OR A	NE TE TEV OF THE PRODUCT OR ANY COMPONEN Ly Approved ATR Supplied Respirator is a NTAL Control, Osha Regulations also per R Spreified Conditions, (See Your Safet) UMINISTRATIVE CONTROLS SHOULD RE IMPLEME	NT IS FXCEEDED, A NUVISED IN ADSENCE OF Mit other Niosh/HSHA (Equipment Supplifr). Ented to Reduce
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FYE PROTECTION: CHEMT WITH OCHA REGULA Type Safety Glas	CAL SPLASH GODDLES AND FACE SHIELD (9") Tions are any ised, nonever, osna regula Ses. (consult your safety foulthent sup)	MIN,) IN COMPLIANCE Tions auso permite othe Puter)
OTHER PROVECTIVE EQUI HOOIS.	PHENT TO PREVENT SKIN CONTACT, WEAR IN	DERVIOUS CLOTHING AND
5E0	TION IX-SPECIAL PRECAUTIONS OF OTHER CO	MMENTS
CONTAINERS OF THIS MA Retain product r Given in the dat	TERIAL MAY BE HAZARDOUS WHEN EMPTIED.SI Residues (vapor, liguid, and/or solid), A shekt must be observed.	NCE EMPTIED CONTAINERS
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FIRE	Wear usual fire protective clothing a	and self	contained bre	athin	g apparatus ir	n emerger	ncies.		i	
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	Under RCRA, it is the responsibility of the user to	o determi	ne, at the time of a	inposal	• E	SUPERFUND	1 80 -	N.E. Po	unds.	
	whether product meets RCRA criteria for hazardi	DUS W ast ê.	•					ONTINUED ON EVERSE SIDE		
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		No specific data available - skin irritant								
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		In the specific data available ever intrease								
XL	:	No specific data available - avoid prolonged exposure								
L'IL		DRAL Ne specific data available - Avoid contact								
1	-	OTHEP								
		The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.								
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	E.	May duse irritation								
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, , ,		INGESTION INEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSONI								
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		- Neoprene Natural Poiv. Butvi Poivvinyi Poivvinyi tubler aicohol Chioride								
X Di	┟	EYES								
		Chemical splash goggles or face shield								
PRO		VENTILATION RECIVIREMENTS - Always maintain as posure balow parmatola as posure innits								
		Area, mechanical RESPIRATOR TYPE - For reducing contempont concentration in inhered or								
SPEC		Fritter - dust Can or cartridge tume mis) gas or vabor								
	+	OTHER								
		Satery shower and/or eye wash should be available								
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P1 =		E This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of								
Ň	DTE	The data on this sheet relates only to the specific material designated herein, assumes no legal responsibility for use or relience upon this data.								

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MSDS NUMBER: 2216 PART NUMBER: 2216 PRODUCT NAME: INC 2216 Scale Inhibitor Int CAS NUMBER: 69009-91-2 	ermediate		· · ·		、 			· ·
	ली के दिया प्रायोगी है - प्रायं के साम विदे प्रमुख्याना जिले है के बुझान में प्रतिहास के आप है।	SECT	ION I			⋇ [;] ₩₽₽₽ _₽ ₽₽₩₩₽₽₽₩₩₩₽₽₩₩₩₽₽₩₩₩₽₽₩₩₩₩₩₩₩₩₩₩	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- ()
MANUFACTURER: / VENDOR: InterChem, Inc.	na - Nadira Para - Anara dalar a canada di Gargana di Bilana da Kar						<u></u>	
ADDRESS: 3803 Mankins Odessa, TX 79763	1999		- HNIS RA	FINGS:		HEALTH: FIRE:		HEALTH / \ FIRE 2 / \ 1
EMERGENCY TELEPHONE NUMBER: (915)550-7027			-	PE	RSONAL PRO	TECTION:		
INFORMATION TELEPHONE NUMBER: (915)550-702	7		-				SPE	C. HAZ.\ / REAC
DATE PREPARED: 10/07/93			_					
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		5 INGKE	EDIENTS/ID					170
CAS NUMBER HAZARDOUS COMPONENT		NTP J	SUB- IARC PART/:	SARA 2 313	OSHA PEL	ACGIH TLV	RECOMMEND	ED PERCENT
12125-02-9 Ammonium chloride 69009-91-2 Trade Secret # 2216-01		?	????	N N	NI NI	NI NI		5–10 45–50
	SECTION III - PHY	SICAL/(CHEMICAL CH	HARACT	ERISTICS			
BOILING POINT	212 F.		SPECIFIC	GRAVI	TY (H2O ≍	1)		1.24000
VAPOR PRESSURE (mm Hg.)	NI		MELTING I	POINT				NI
VAPOR DENSITY (AIR = 1)	NI		EVAPORAT	LON RA	TE (Butyl	Acetate = 1)		NI ·
SOLUBILITY IN WATER: Complete								
APPEARANCE AND ODOR: Amber Liquid / Pungen	t Odor		,		-			
OTHER INFORMATION: Viscosity Units = AP 28PH = AP 1.0 Freezing Point = NIDry Point = NI					<u> </u>			
DANGER Physical Hazards:~ Combustible Liquid Corrosive to Metals								
Generic Name:- Phosphonic Acid Salt								
UN/NA Number:- UN 1760						-		
DOT Proper Shipping Name:- Corrosive Liqu	id, N.O.S. (Phosph	honic A	(cid Salt)					
DOT Hazard Class:- Corrosive Liquid								
DOT/CERCLA RQ:- NE								
This product contains no SARA Section 313 L	Listed Chemicals							
ala ann an Anna ann an Anna an	SECTION IV - FIF	RE AND	EXPLOSION	HAZAR	D DATA			
FLASH POINT: > 200 F.	, <u>, , , , , , , , , , , , , , , , , , </u>		FLAMMABLE	LIMI	TS: LEL:	NI	UEL: NI	<u></u>

EXTINGUISHING MEDIA: NI Dry Chemical CO2 Water Spray Water Fog

SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection. see section V - decomposition products possible.

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Fight fire from safe distance / protected location.

MSDS NUMBER: 2216

Page: 2

PRODUCT NAME: INC 2216 Scale Inhibitor Intermediate
SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)
Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.
May become combustible following evaporation of non-combustible carrier.
Use water spray / fog for cooling. Notify authorities if liquid enters sewer / public waters.
UNUSUAL FIRE FIGHTING PROCEDURES: May become combustible upon loss of water carrier.
SECTION V - REACTIVITY DATA
STABILITY: Stable
INCOMPATIBILITY (MATERIALS TO AVOID): Heat, open flame. Evaporation of all water content. Strong Oxidizing Agents. Strong Bases (Alkalies)
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: When heated to decomposition, may emit Carbon Monoxide, as well as trace oxides and/or compounds of Nitrogen and Phosphorous.
HAZARDOUS POLYMERIZATION: Not expected to occur.
SECTION VI - HEALTH HAZARD DATA
ROUTE(S) OF ENTRY: Inhalation:- Inhalation is unlikely except at elevated temperatures and/or pressure. However, if exposed to vapor / aerosol for even a short time, coughing and shortness of breath may result. More severe symptons are also possible. Eye Contact:- Primary Route May cause destruction of eventiseue
Skin Absorption:- No appropriate human or animal helath effects data are known to exist.
May produce skin irritation, blistering, ulcers, and deep scarring. Ingestion:- Ingestion of this material may cause corrosion or irritation of the linings of the mouth, throat, and gastrointestinal tract.
HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Corrosive to Eyes. Corrosive to Skin. Severe Ingestion Hazard. No data on Inhalation Found. No data on Skin Absorption Found.
SIGNS AND SYMPTOMS OF EXPOSURE: Skin Contact:- Irritation or redness of the skin may develop after exposure.
Eye Contact:- Severe eye irritation may develop immediately on exposure.
Ingestion:- • Severe irritation and burning of the linings of the mouth, throat, and stomach may develop.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: If ingested, may cause corrosion of the Gastrointestinal tract. If may also cause corrosion of skin and eye on contact. Prompt treatment is essential to minimize damage.
EMERGENCY AND FIRST AID PROCEDURES: Inhalation:- If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt actions is essential.

Eye Contact:-In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract eyelids often. Obtain emergency medical

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MSDS NUMBER: 2216

PRODUCT-NAME:-INC-2216-Scale-Inhibitor-Intermediate

Page: 3

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SECTION VI - HEALTH HAZARD DATA (Continued)

attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handly accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Equip responders with proper protection (see Section VIII). Impound / recover large land spill. Soak up small spill with inert solids. Shovel into suitable cisposal containers. Flush / dilute residue with water.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, figerglass, lined steel, or stainless steel.

OTHER PRECAUTIONS:

Decontamination Procedures:-

Equipment containing this material should be isolated and thoroughly drained, washed, and pruged prior to maintenance / repair operations. Wear recommended personal protective equipment.

SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhausr or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or suppled air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The quipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soilde clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS:

This product contains no SARA Section 313 listed chemicals.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself.

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness.

SECTION IX - ADDITIONAL INFORMATION (Continued)

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

Material Safety Data Sheet





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This Material Safety Data Sheet contains environmental, health and toxicology information for your employees. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information incorporated in your MSDS. Discard any previous edition of this MSDS.

The Chevron MSDSs have been reformatted and expanded to provide you with useful hazard warnings and health evaluations and to facilitate your compliance with local, State and Federal regulations.

1. PRODUCT IDENTIFICATION

GULF Heavy Aromatic Distillate

DANGER! - HARMFUL OR FATAL IF SWALLOWED - MAY CAUSE SKIN IRRITATION - COMBUSTIBLE

PRODUCT INFORMATION: (713)754-4432

Revision Number: 4 Revision Date: 09/16/89 MSDS Number: PE0047 NDA - No Data Available NA - Not Applicable

Prepared According to the OSHA Hazard Communication Standard (29 CFR 1910.1200) by the Chevron Environmental Health Center, Inc., F.O. Box 4054, Richmond, CA 94804. GULF Heavy Aromatic Dist

Page 2 of 8

2. FIRST AID

EYE CONTACT:

No first aid procedures are required. However, as a precaution flush eyes with fresh water for 15 minutes. Remove contact lenses if worn. SKIN CONTACT: Remove contaminated clothing. Wash skin thoroughly with soap and water. See a doctor if any signs or symptoms described in this document occur. Discard contaminated non-waterproof shoes and boots. Wash contaminated clothing. INHALATION: If respiratory irritation or any signs or symptoms as described in this document occur, move the person to fresh air. If any of these effects continue, see a doctor. INGESTION: If swallowed, give water or milk to drink and telephone for medical advice. DO NOT make person vomit unless directed to do so by medical personnel. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital. Note to Physician: Ingestion of this product or subsequent

vomiting can result in aspiration of light hydrocarbon liquid which can cause pneumonitis.

3. IMMEDIATE HEALTH EFFECTS

EYE CONTACT:

This substance is not expected to cause prolonged or significant eye irritation.

SKIN IRRITATION:

This substance is a moderate skin irritant so contact with the skin could cause prolonged (days) injury to the affected area. The degree of injury will depend on the amount of material that gets on the skin and the speed and thoroughness of the first aid treatment. Signs and symptoms may include pain or a feeling of heat, discoloration, swelling, and blistering.

DERMAL TOXICITY:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if it gets on the skin.

RESPIRATORY/INHALATION:

This substance is slightly toxic to internal organs if inhaled. The degree of injury will depend on the airborne concentration and duration of exposure. Signs and symptoms of central nervous system effects may include one or more of the following: headache, dizziness, loss of appetite, weakness and loss of coordination. **INGESTION:**

If swallowed, this substance is considered practically non-toxic to internal organs. Because of the low viscosity of this substance, it can directly enter the lungs if it is swallowed (this is called aspiration).

GULF Heavy Aromatic Distillat

This can occur during the act of swallowing or when vomiting the substance. Once in the lungs, the substance is very difficult to remove and can cause severe injury to the lungs and death.

4. PROTECTIVE EQUIPMENT

EYE PROTECTION: No special eye protection is usually necessary. SKIN PROTECTION: Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including gloves. RESPIRATORY PROTECTION: Wear approved respiratory protection when working with this material unless ventilation is adequate to keep airborne concentrations below recommended exposure standards. VENTILATION: Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

5. FIRE PROTECTION

FLASH POINT: (PM) 126F AUTOIGNITION: NDA FLAMMABILITY: NDA EXTINGUISHING MEDIA: CO2, dry chemical, foam and water fog. NFPA RATINGS: Health 1; Flammability 2; Reactivity 0; Special NDA; HMIS RATINGS: Health 1; Flammability 2; Reactivity 0; Other NDA; (Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association or, if applicable, the National Paint and Coating Association, and do not necessarily reflect the hazard evaluation of the Chevron Environmental Health Center. Read the entire document and label before using this product. FIRE FIGHTING PROCEDURES: Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85 F. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire document. COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.

GULF Heavy Aromatic Distrilate

Page 4 of 8

6. STORAGE, HANDLING, AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: NA. STABILITY: Stable. HAZARDOUS POLYMERIZATION: Polymerization will not occur. INCOMPATIBILITY: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc. SPECIAL PRECAUTIONS: READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

DO NOT USE OR STORE near flame, sparks or hot surfaces. USE ONLY IN WELL VENTILATED AREA. Keep container closed. DO NOT weld, heat or drill container. Replace cap or bung. Emptied container still contains hazardous or explosive vapor or liquid. CAUTION! Do not use pressure to empty drum or explosion may result.

7. PHYSICAL PROPERTIES

SOLUBILITY: Soluble in hydrocarbon solvents; insoluble in water. APPEARANCE: Colorless liquid with an aromatic odor BOILING POINT: 290 - 359F (IBP) MELTING POINT: NA EVAPORATION: NDA SPECIFIC GRAVITY: 0.89 - 0.93 @ 15.6/15.6C VAPOR PRESSURE: 0.2 - 0.4PSI (Reid) PERCENT VOLATILE (VOLUME %): NDA VAPOR DENSITY (AIR=1): NDA VISCOSITY: NDA POUR POINT: 70F (Max.)

8. SPILL RESPONSE AND DISPOSAL

CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300 (24 hour). SPILL/LEAK PRECAUTIONS: Certain geographical areas have air pollution restrictions concerning the use of materials in work situations which may release volatile components to the atmosphere. Air pollution regulations should be studied to determine if this material is regulated in the area where it is to be used.

Eliminate all open flame in vicinity of spill or released vapor. Stop the source of the leak or release. Clean up releases as soon as possible, observing precautions in Protective Equipment. Contain liquid to prevent

GULF Heavy Aromatic Disti

5 of 8 further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger

releases. If this material is released into a work area, evacuate the area immediately. Persons entering the contaminated area to correct the problem and determine whether it is safe to resume normal activities must comply with all instructions in Protective Equipment section. DISPOSAL METHODS: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local

environmental or health authorities for approved disposal of this material.

9. EXPOSURE STANDARDS, REGULATORY LIMITS AND COMPOSITION

COMPOSITION COMMENT:

All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

The percent compositions are given to allow for the various ranges of the components present in the whole product and may not equal 100%.

PERCENT/CAS# COMPONENT/REGULATORY LIMITS

100.0 % GULF Heavy Aromatic Distillate

CONTAINING

< 41.0 % PARAFFINS

> 36.0 % DISTILLATES, HEAVY AROMATIC CAS67891796

< 20.0 % ETHYL BENZENE CAS100414 A toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. 100ppm ACGIH TLV 125ppm ACGIH STEL 100ppm OSHA PEL 125ppm OSHA STEL CERCLA 302.4 RQ=1000 POUNDS

< 10.0 % XYLENE CAS1330207 A toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. 100ppm ACGIH TLV 150ppm ACGIH STEL 100ppm OSHA PEL 150ppm OSHA STEL

CERCLA 302.4 RQ=1000 POUNDS

< 2.0 % NAPHTHALENE CAS91203 A toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. 10ppm ACGIH TLV 15ppm ACGIH STEL 10ppm OSHA PEL 15ppm OSHA STEL CERCLA 302.4 RQ=100 POUNDS

< 2.0 % CUMENE

CAS98828 A toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. 50ppm ACGIH TLV 50ppm OSHA PEL CERCLA 302.4 RQ=5000 POUNDS

- 1.0 % TRIMETHYLBENZENE CAS25551137 25ppm ACGIH TLV 25ppm OSHA PEL
- 1.0 % 4,7-METHANO-1H-INDENE,OCTAHYDRO
- CAS6004382

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- < 0.5 % TOLUENE
- CAS108853 A toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. 100ppm ACGIH TLV 150ppm ACGIH STEL 100ppm OSHA PEL 150ppm OSHA STEL CERCLA 302.4 RQ=1000 POUNDS
- < 0.1 % BENZENE
- CAS71432 A toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. 10ppm ACGIH TLV 1ppm OSHA PEL 5ppm OSHA STEL CERCLA 302.4 RQ=1000 POUNDS

Refer to the OSHA Benzene Standard (29 CFR 1910.1028) for detailed training, exposure monitoring, respiratory protection and medical surveillance requirements before using this product.

TLV	-	Threshold Limit Value	PEL -	Permissibl	e Exposur	e Limit
STEL	-	Short-term Exposure Limit	TPQ -	Threshold	Planning	Quantity

GULF Heavy Aromatic Distillate

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RQ - Reportable Quantity CC - Chevron Chemical Company CPS - CUSA Product Code CAS - Chemical Abstract Service Number

10. REGULATORY INFORMATION

DOT SHIPPING NAME: NDA DOT HAZARD CLASS: NDA DOT IDENTIFICATION NUMBER: NDA

SARA 311 CATEGORIES: 1. Immediate (Acute) Health Effects; YES 2. Delayed (Chronic) Health Effects; NO 3. Fire Hazard; YES 4. Sudden Release of Pressure Hazard; NO 5. Reactivity Hazard; NO

WHEN A COMPONENT OF THIS MATERIAL IS SHOWN IN THIS SECTION, THE REGULATORY LIST ON WHICH IT APPEARS IS INDICATED.

ETHYLBENZENE	01,02,10,14,15,17,18,26,28,
TOLUENE	01,02,10,14,15,17,18,26,28,
DIMETHYL BENZENE/XYLENE	01,02,10,14,15,17,18,
TRIMETHYLBENZENE	02,10,14,17,24,26,28,
BENZENE	01,02,03,04,10,14,17,18,20,28,
NAPTHALENE	01,02,10,14,15,17,18,26,28,
CUMENE	01,02,10,14,17,21,24,26,28,

REGULATORY LISTS:

01=SARA 313	02=MASS RTK	03=NTP Carcinogen
04=CA Prop. 65	05=MI 406	06=IARC Group 1
07=IARC Group 2A	08=IARC Group 2B	09=SARA 302/304
10=PA RTK	11=NJ RTK	12=CERCLA 302.4
13=MN RTK	14=ACGIH TLV	15=ACGIH STEL
16=ACGIH Calculated TLV	17=OSHA PEL	18=OSHA STEL
19=Chevron TLV	20=EPA Carcinogen	21=TSCA SECT 4
22=TSCA SECT 5 SNUR	23=TSCA SECT 6 RULE	24=TSCA SECT 12 EXPORT
25=TSCA SECT BA CAIR	26=TSCA SECT 8D REPORT	27=TSCA SECT 8E
28=Canadian WHMIS		
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11. PRODUCT TOXICOLOGY DATA

EYE IRRITATION: The Draize Eye Irritation Score (range, 0-110) in rabbits is 3.2. SKIN IRRITATION: The Draize Skin Primary Irritation Score (range 0-8) for a 24-hour exposure (rabbits) is 4.0. DERMAL TOXICITY: The dermal LD50 in rabbits is > 2.0 g/kg. RESPIRATORY/INHALATION: The 4-hour Inhalation LC50 in rats is 8.5 g/m3.

GULF Heavy Aromatic Distillate

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INGESTION:

The oral LD50 in rats is > 6.0 g/kg. ADDITIONAL TOXICOLOGY DATA: Results of a 14-day dermal toxicity study showed that repeated application of undiluted Heavy Aromatic Distillate to the skin of rats resulted in severe skin irritation at the site of contact which resulted in cracking, peeling and scarring. No other biologically significant changes were noted.

Results of a 5-day inhalation toxicity study with rats showed that inhalation of 800 ppm Heavy Aromatic Distillate vapor in air for six hours a days caused decreased body weights and death of one female rat but no observable gross pathological effects in surviving animals.

The result of the In Vitro Unscheduled DNA Synthesis in Rat Primary Hepatocytes Assay for this material was negative. The result of the Cell Transformation in BALB/c-3T3 Cells Assay for this material was negative. The result of the Chinese Hamster Ovary (CHO) Cell HGPRT Gene Mutation Assay was negative. The result of the Micronucleus Test for this material was negative.

Results of a 5-day dermal toxicity study in rats show that repeated dermal application of Light Pyrolysis Gasoline causes severe skin irritation with the possibility of skin damage.

12. ADDITIONAL HEALTH DATA

ADDITIONAL HEALTH DATA COMMENT:

This product contains xylene which has been reported to be embryotoxic and to cause developmental disturbances in rats and mice exposed before birth. Xylene has given negative results in several mutagen testing assays including the Ames assay. In a cancer study sponsored by the National Toxicology Program (NTP), technical grade xylene gave no evidence of carcinogenicity in rats or mice dosed daily for two years.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Material Safety Data Sheet Toluene

PHIBRO ENERGY, INC. 600 STEAMBOAT ROAD GREENWICH, CT. 06830

Emergency Phone Numbers 24 Hour Emergency 713-923-6641 Chemtrec Emergency 800-424-9300

I. GENERAL INFORMATION

HILL PETROLEUM COMPANY

HOUSTON TEXAS 77262

P.O. BOX 5038

Trade Name Toluene Chemical Family Aromatic Hydrocarbon Synonyms Toluol, Nitration Grade Toluene, Methyl Benzene General Assistance 713-921-8301 CAS Registry Number

Medical Assistance 713-651-0870

108-88-3 DOT Proper Shipping Name Toluene (toluol) DOT Hazard Class Flammable Liquid DOT Identification Number UN 1294 Reportable Quantity 1000 lb

General Assistance

II. SUMMARY OF HAZARDS

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Avoid liquid, mist and vapor contact. Flammable Liquid. Vapors may explode.

III. HAZARDOUS INGREDIENTS

CAS No. Component Concentration (\mathbf{X}) 108-88-3 Tolue**ne** 99**+X** IV. PHYSICAL DATA Boiling Point: 230°F Specific Gravity: 0.87 @ 60°F Melting Point: not applicable Vapor Pressure: 1.05 psi @ 100°F Vapor Density (air=1): 3.1 Percent Volatile: essentially 100% Solubility in Water: Negligible (<0.1%) Appearance and Odor: Colorless liquid with aromatic hydrocarbon odor FIRE AND EXPLOSION HAZARD DATA ۷.

Flash Point: 40°FAutoignition Temperature: 896°FFlammability Limits in AirUpper Explosive Limit: 7.1%Lower Explosive Limit: 1.2%Upper Explosive Limit: 7.1%NFFA ClassificationFire: High (3)Health: Hazardous (2)Fire: High (3)Reactivity: Stable (0)Specific Hazard: not applicable



FIRE AND EXPLOSION HAZARD DATA (cont'd)

Basic Firefighting Procedures

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Flammable Liquid. Use dry chemical, foam or carbon dioxide to extinguish the fire. Consult foam manufacturer for appropriate media, application rates and water/foam ratio. Water can be used to cool fire-exposed containers, structures and to protect personnel. If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers.

Unusual Fire and Explosion Hazards

Dangerous when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapor or gas may spread to distant ignition sources (pilot lights, welding equipment, electrical equipment, etc.) and flash back. Vapors may accumulate in low areas. Vapors may concentrate in confined areas. Flowing product can be ignited by self generated static electricity. Use adequate grounding to prevent static buildup. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Irritating or toxic substances may be emitted upon thermal decomposition. For fires involving this material, do not enter any enclosed or confined space without proper protective equipment, which may include NIOSH approved selfcontained breathing apparatus with full face mask. Clothing, rags or similar organic material contaminated with this product and stored in a closed space may undergo spontaneous combustion. Transfer to and from commonly grounded containers.

VI. REACTIVITY INFORMATION

<u>Stability:</u> Stable under normal conditions of use <u>Incompatibility:</u> Avoid strong oxidizing agents (peroxide, permanganate, dichromate, chlorine, etc.), strong acids, caustics and halogens. <u>Hazardous: Polymerization:</u> Will not occur

<u>Conditions Reactions/Decomposition Products:</u> Combustion may produce carbon monoxide, carbon dioxide and reactive hydrocarbons (aldehydes, aromatics, etc.) <u>Conditions to Avoid:</u> Heat, sparks, open flame, static electricity or any other potential ignition sources should be avoided. Prevent vapor accumulation. Do we not switch load.

VII. HEALTH HAZARD INFORMATION

Product Listed as a Carcinogen or Potential Carcinogen by:NTP - NoIARC - NoOSHA - NoOther - NoTarget Organs:Respiratory system, skinPrimary Routes of Entry:Inhalation, ingestion, dermal or eye contactOccupational Exposure LimitsCompound:SourceYearTolueneOSHA-PEL1989TWAIOD upm8 hourACGIH-TLV1989TWA100 upm

OSHA-PEL	1989	TWA	100	ppm	8	hour
ACGIH-TLV	1989	TWA	100	րթա	8	hour
NIOSH-REL	1989	TWA	100	ppm	8	hour
OSHA-PEL	1989	STEL	150	ppm	15	min
ACGIH-TLV	1989	STEL	150	ppm	15	min
NIOSH-REL	1989	CL	200	ppm	10	min

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VII. HEALTH HAZARD INFORMATION (cont'd)

Effects and Hazards of Eye Contact

May cause severe irritation, redness, tearing, blurred vision and conjunctivitis. Effects and Hazards of Skin Contact

Prolonged or repeated contact may cause moderate irritation, defatting (cracking), redness, itching, inflammation, dermatitis and possible secondary infection. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Injury may not appear serious at first. Within a few hours, tissues will become swollen, discolored and extremely painful. See Notes to Physician section. <u>Enfects and Hazards of Inhalation</u>

Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes.

Effects and Hazards of Ingestion

This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING. Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".

Medical Conditions Aggravated by Exposure

Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

Toxicological Information

TOLUENE can affect the body if it is inhaled, comes in contact with the eyes or skin or it is swallowed. It may also enter the body through the skin. Toluene vapors cause narcosis. Controlled exposures of human subjects to 200 ppm for 8 hours produced mild fatigue, weakness, confusion, lacrimation and paresthesia. At CUO ppm for 8 hours, there was euphoria, headache, dizziness, dilated pupils and nausea. At 800 ppm for 8 hours, symptoms were more pronounced, and after effects-included nervousness, muscular fatigue and insomnia persisting for several days. In workers exposed for many years to concentrations in the range of 80 to 300 ppm, there was no clinical or laboratory evidence of altered liver function. Toluene exposure does not result in the same chronic injury to bone marrow caused by benzene. Liquid splashed in the eyes of workers has caused transient corneal damage and conjunctival irritation, complete recovery occurred within 48 hours. Animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. This later effect was shown to be enhanced by hypoxia or the injection of adrenalin-like agents. Workers exposed at less than 200 ppm have complained of headache, lassitude and nausea, but physical findings were essentially negative. At concentrations between 200 and 500 ppm, impairment of coordination, momentary loss of memory and anorexia were present. Between 500 and 1500 ppm, palpitation, extreme weakness, pronounced loss of coordination and impairment of reaction time were noted. The red cell count fell in many instances and there were cases of aplastic anemia in which recovery followed



HEALTH HAZARD INFORMATION (cont'd) VII.

Toxicological Information (cont'd)

intensive hospital treatment (although some of the effects may have been due to benzene impurity). Toluene has been reported to decrease immunological responses and cause recordable hearing loss in test animals. Damages genetic material in mamalian test systems. May cause adverse reproductive effects based on animal testing.

EI EI EMERGENCY AND FIRST AID INFORMATION

ireatment for Eye Contact

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Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if pain or redness continues.

Treatment for Skin Contact

Wash exposed area thoroughly with soap and water. Remove contaminated clothing promptly and launder before reuse. Contaminated leather goods should be discarded. If irritation persists or symptoms described in the MSDS develop, seek medical attention. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Get immediate medical attention.

Treatment for Inhalation

Remove to fresh air. If breathing is difficult, ensure clear airway and administer oxygen. If not breathing, apply artificial respiration or cardiopulmonary resuscitation. Keep person warm, quiet and get medical attention.

Treatment for Ingestion

Never give anything by mouth to an unconscious person. DO NOT induce vomiting. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal. Give vegetable oil or charcoal slurry to retard absorption. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs and monitor for breathing difficulty. SEEK IMMEDIATE MEDICAL ATTENTION. Keep person warm and quiet.

Notes to Physician

In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratrenhcal tube, to prevent aspiration. Irregular heart beat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.

łX. **PRECAUTIONARY** MEASURES

Respiratory Protection

If workplace exposure limits for product or components are exceeded, NIOSE

IX. PRECAUTIONARY MEASURES (cont'd)

Respiratory Protection (cont'd)

equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.

Eye Protection

Keep away from eyes. Eye contact can be avoided by wearing safety glasses or chemical splash goggles. Do not wear contact lenses when working around this product.

Skin Protection

Keep away from skin. Skin contact can be minimized by wearing protective gloves such as neoprene, nitrile-butadiene rubber, etc. and, where necessary, impervious clothing and boots. Leather goods contaminated with this product should be discarded. A source of clean water should be available in the work area for flushing eyes and skin.

Ventilation

Avoid breathing mists and vapor. Use in well ventilated area. In confined Space, mechanical ventilation may be necessary to reduce vapor concentrations to levels below the allowable exposure limits.

Other Precautionary Measures

ranks, vessels or other confined spaces which have contained product should be freed of vapors before entering. The container should be checked with an explosimeter for safety and an oxygen meter to ensure a safe breathing atmosphere before entry. Empty containers may contain toxic, flammable/combustible or explosive residues or vapors. Do not cut, grind, drill, weld or reuse empty containers that contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards.

Precautions to be Taken in Handling and Storing

Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use nonsparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which proviously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, smoking or using toilet facilities.

X. SPILL AND LEAK PROCEDURES

Precautions in Case of a Spill or Release

If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Extremely flammable. Review Fire and Explosion Hazard Data before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from



X. SPILL AND LEAK PROCEDURES (cont'd)

<u>Precautions in Case of a Spill or Release (cont'd)</u> release. Contain spill in smallest possible area. Recover as much product as possible (e.g., by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment/drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 800-424-8802. For highway or railway spills, contact Chemtrec at 800-424-9300.

<u>Waste Disposal Method</u> Dispose of material in accordance with local, county, state and federal

regulations. Contact state and federal regulators to determine whether the saverial should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

XI. SARA TITLE III INFORMATION

Section 302/304 Extremely Hazardous Substances

None <u>Section 311 Hazard Category</u> Acute Chronic Fire Pressure Reactive Not Applicable X X X <u>Section 313 Toxic Chemicals</u> Toluene 99+X

XII. LABELING INFORMATION

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter image and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Avoid liquid, mist and vapor contact. Flammable Liquid. Vapors may explode.

If swallowed, do not induce vomiting, aspiration hazard. Call physician immediately. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and plenty of water. Product soaked clothing should be removed and laundered before reuse. Read Emergency and First Aid Information section of the MSDS.

Use only in well ventilated locations. Keep away from heat, spark and flames. In case of fire, use water spray, foam, dry chemical or carbon dioxide as described in the Fire and Explosion Hazard Data section of the MSDS. Do not pressurize, cut, weld, braze, solder, drill on or near this container. "Empty" container contains residue (liquid and/or vapor) and may explode in heat of a fire.

For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.



Material Safety Data Sheet Toluene

DISCLAIMER

The information, recommendations and suggestions herein were compiled from reference material and other sources believed to be reliable. However, the MSDS's accuracy or completeness is not guaranteed by Phibro Energy, lnc. or its affiliates, nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Since conditions of use are beyond our control, no warranties of merchantability or fitness for a particular purpose are expressed or implied. This MSDS is not intended as a license to operate under, or recommendation to infringe on, any patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

Prepared By:

Sue Bottom Corporate Manager Environmental Affairs & Safety



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SEE SECTION VI FOR ADDITIONAL HEALTH INFORMATION.

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EYE CONTACT IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. SKIN CONTACT FLUSH SKIN WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. INHALATION REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION. INGESTION DO NOT GIVE (IQUIDS IF VICTIM IS UNCONSCIOUS OR VERY DROWSY, DTHERWISE, GIVE NO MORE THAN 2 CLASSES OF WATER AND INDUCE VOMITING BY GIVING 30CC (2 TABLESPOONS) SYRUP OF IPECAC. UNAVAILABLE, GIVE 2 GLASSES OF WATER AND, INDUCE VOMITING BY TOUCHING FINGER TO BACK OF VICTIM'S THROAT, KEEP VICTIM'S HEAD BELOW HIPS WHILE VOMITING. GET MEDICAL ATTENTION. NOTE TO PHYSICIAN IF VICTIM IS ACCHILD, GIVE NO MORE THAN 1 GLASS OF WATER AND ISCC (1 TABLESPODN) SYRUP OF IPECAC IF SUCTIM IS ACCHILD, GIVE NO MORE THAN 1 GLASS OF WATER AND MECONACIGUASHESS OCCUR BEFORE EMESIS, GASTR LAVAGE SHOULD BEFCONSIDERED FOLLOWING INTUBATION WITH A CUFFED ENDOTRACHEAL TUBE. SECTION VI SUPPLEMENTAL HEALTH INFORMATION IPA: IN RESPONSE TO A TSCA TEST RULE, SEVERAL STUDIES OF IPA HAVE NOW BEEN COMPLETED. THE STUDIES AND CHOP ASSAYS, WERE NEGATIVE. 2) RAT AND RABEIT ORAL TERATOGENICITY STUDIES, THE MOUSE MICRONUCLEUS AND CHOP IPA: IN RESPONSE TO A TSCA TEST RULE, SEVERAL STUDIES OF IPA HAVE NOW BEEN COMPLETED. THE STUDIES AND CHOP <td>SECTI</td> <td>DN V</td> <td>EMERGENCY</td> <td>AND FIRST AID</td> <td>PROCEDURES</td> <td></td>	SECTI	DN V	EMERGENCY	AND FIRST AID	PROCEDURES	
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	OTHER TOXIC INCRE KG. INHAL THAT / KG) BASE2 EFFEC SUBMI	TEST RULE ITY STUDY ASE IN POST ALSO, THE ATION NEURO IPA CAUS 5) SUB S) SUB S) SUB S) SUB CINIC TS (RAT O TTED TO EPA	RELATED STUDIES: 3) RAT OF THE NOAEL FOR REPRODUCTION - WEANING PUP MORTALITY AN NOAEL FOR PARENTAL FEMALE COXICITY AND ORAL DEVELO ED NEUROTOXICITY IN ADULT CHRONIC RAT AND MOUSE IN AL SIGNS OF CNS DEPRESSION NLY) SEEN AT 1500 PPM. UNDER THE REQUIREMENTS OF	RAL REPRODUCTI INDICES WAS 1 T THIS LEVEL** BODY WEIGHT OPMENTAL NEUR S (MAX DOSE HALATION TOXIC (BOTH SPECIES (NOTE: THE I TSCA 8(E).)	VE TOXICITY: IN THE OOO MG / KG, HOWEVER ; THE NOAEL FOR THIS DECREASE WAS 100 MG / OTOXICITY STUDIES, 5000 PPM) OR OFFSPR ITY: THE SUBCHRDNIC) AND INCREASED BODY NFORMATION TAGGED BY	RAT REPRODUCTIVE , THERE WAS A MARKED EFFECT WAS 500 MG / KG. 4) IN RAT THERE WAS NO EVIDENCE ING (MAX DOSE 1200 MG NOAEL WAS 500 PPM WEIGHT AND BLOOD "**" ABOVE WERE

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Ŋ, SECTION VII PHYSICAL DATA ----SPECIFIC GRAVITY: 0.79 BOILING POINT: 180 VAPOR PRESSURE: 32 @ 68 DEG F (DEG F) (H20=1) (MM HG) MELTING POINT: -127 VAPOR DENSITY: 2.1 SOLUBILITY: COMPLETE (DEG F') (IN WATER) $(\Delta IR=1)$ EVAPORATION RATE (N-BUTYL ACETATE = 1): 1.4 VOC: 100% @ 6.51 LB/GAL 5 12.5 APPEARANCE AND ODOR : COLORLESS, MOBILE LIQUID. MILD ODOR. 12.51 the p MAG SECTION VIII FIRE AND EXPLOSION HAZARDS _____ FLASH POINT AND METHOD: FLAMMABLE LIMITS /% VOLUME IN AIR 53 DEG Får TCC LOWER: 2 UPPER: 12 EXTINGUISHING MEDIA USE WATER "FOG, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2. SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS WARNING FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER. UNUSUAL FIRE AND EXPLOSION HAZARDS CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BECCOOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE ------------------SECTION IX REACTIVITY STABILITY STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR CONDITIONS AND MATERIALS TO AVOID: AVOID HEAT, SPARKS, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS. DO NOT STORE OR HANDLE IN ALUMINUM EQUIPMENT AT TEMPERATURES ABOVE 120 DEG. F. HAZARDOUS DECOMPOSITION PRODUCTS CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION. ------SECTION X EMPLOYEE PROTECTION _____ 1000 RESPIRATORY PROTECTION IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS. DOWA HAS STABLISHED TRANSITIONAL OCCUPATIONAL EXPOSURE LIMITS FOR THIS PRODUCT AND/OR COMPONENTS UF THIS PRODUCT. REFER TO 29 CFR 1910.1000 FOR THESE TRANSITIONAL LIMITS AND REQUIREMENTS FOR MEETING THESE LIMITS.

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PROTECTIVE CLOTHING

AVOID CONTACT WITH EYES. WEAR CHEMICAL GOGGLES IF THERE IS LIKELIHOOD OF CONTACT WITH EYES. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THE BEST PROTECTION IS PROVIDED BY NITRILE, NEOPRENE AND NATURAL RUBBER GLOVES.

ADDITIONAL PROTECTIVE MEASURES

USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR EMERGENCY USE. - g e - 🦓

SECTION XI	ENVIRONMENTAL PROTECTION
SPILL OR LEAK PROC WARNING FLAMMABL PREVENT SPARKING APPROPRIATE RESPIR DIKE AND CONTAIN REMOVE WITH VACUUM SUCH AS CLAY. SAND FLUSH AREA WITH W SPILLC TAKE UP PROPER DISPOSAL	EDURES E. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT MUST BE GROUNDED TO *** LARGE SPILLS *** EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR ATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. A TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT OR OTHER SUITABLE MATERIAL: PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR
SECTION XII	SPECIAL PRECAUTIONS
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KEEP LIQUID AND VA IGNITE EVEN LIQUID AND TURN OFF OTHER	POR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES R SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE.
VAPORS MAY ACCUMUL RESULT. KEEP CONT THOSE THAT HAVE BE PERFORM SIMILAR OF STATIC ELECTRICIT GROUND TRANSFER CC	ATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN AINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION. CONTAINERS, EVEN EN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND. WELD OR PERATIONS ON OR NEAR CONTAINERS. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM. Y MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND INTAINERS AND EQUIPMENT.
WASH WITH SOAP AND CONTAMINATED CLOTH LAUNDERING.	WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDER HING BEFORE REUSE. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA BEFORE
DO NOT STORE OR W	
DU NUI SIURE UR MA	NULE IN ALUMINUM EQUIPMENT AT TEMPERATURES ABOVE 120 DEG. F.
SECTION XIII	TRANSPORTATION REQUIREMENTS
DEPARTMENT OF TRAN	
FLAMMABLE LIQUID	
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D.O.T. PROPER SHIF	PPING NAME:
ISOPROPANOL	
OTHER REQUIREMENTS	
DOT ID NUMBER = UN	1 1219 - GUIDE SHEET 26
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CECTION VIN	
SECTION XIV	
1.1.1	
THIS PRODUCT IS LI	STED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.
IN ACCORDANCE WITH COPIED AND SENT (W)	H SARA TITLE III, SECTION 313, THE ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE ITH THE MSDS. 1
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_____ ____ SECTION XV STATE REGULATORY INFORMATION 180 THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSOS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE. STATE LISTED COMPONENT PERCENT STATE CODE ----------ISOPROPYL ALCOHOL CA, FL. IL. MA. ME, MN. NJ, PA. (CAS ND: 67-63-0) 100 RI CA = CALIFORNIA HAZ. SUBST. LIST; CA65 = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT LIST # FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; MA = MASSAGHUSETTS SUBST. LIST; ME * MAINE HAZ SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST. SECTION XVI SPECIAL NOTES 1989 SEE ENVIRONMENTAL DATA SHEET FOR WASTE DISPOSAL AND OTHER ENVIRONMENTAL INFORMATION. THIS MSDS REVISION HAS CHANGES IN SECTIONS III. THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT HOWEVER, SHELL MAKES NO WARRANTY. EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. 174 DATE PREPARED : DECEMBER 04. 1991 ĥ -----G. A. VAN GELDER મ કું BE SAFE READ OUR PRODUCT SHELL OIL COMPANY SAFETY INFORMATION ... AND PASS IT ON PRODUCT SAFETY AND COMPLIANCE P. D. BOX 4320 (PRODUCT LIABILITY LAW 1 REQUIRES IT) HOUSTON, TX 77210 七彩柳 変更も

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ENVIRONMENTAL DATA SHEET

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EDS 5,120-2 * * PAGE 2

DATE	PREPARED:	NOVEMBER	04, 1991	l 		CUELI			
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OR	EMERGENCY SHELL: CHEMTREC:	ASSISTAN (713) 4 (800) 4	CE PLEASE 73-9461 24-9300	CALL					
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METHANOL LABEL INFORMATION CAS Registry Number: 67-56-1

FLAMMABLE LIQUID, EYE IRRITANT, INGESTION HAZARD

RISK PHRASES

- Eliminate all ignition sources, stop split and use absorbent materials.
- Burns with a clean clear flame which is almost invisible in daylight.
- Eye irritant. Toxic by Ingestion.

PRECAUTIONARY MEASURES

- In confined areas, local and general ventiliation should be provided to maintain airborne concentrations below permissible exposure limits.
- Electrically ground and bond containers when transferring is taking place.
- Face shield and safety glasses with side shield when transferring is taking place.
- Wear chemical resistant pants and jackets, preferably neoprene.
- Store in totally enclosed equipment, designed to avoid human contact.

FIRST AID MEASURES

- Remove to fresh air, restore or assist breathing, obtain medical attention immediately.
- Dilute stomach contents by giving large amounts of water or milk and induce vomiting. Seek medical attention.
- Flush eyes immediately with gently running water for 15 minutes, ensuring all surfaces and crevices are flushed. Obtain medical attention if necessary.
- Remove clothing and wash under shower with soap and water for 15 minutes. Seek medical attention if irritation occurs.
- Read the Material Safety Data Sheet before using this product.
- EMERGENCY TELEPHONE NUMBER: 1-403-527-8141

NOVACOR CHEMICALS INC., 1 Gateball Drive, Parsippany, New Jersey, USA, 07054.



METHANOL MATERIAL SAFETY DATA SHEET

1. PRODUCT INFORMATION

Product Name Yearde Name/Synonyms WHMIS Classification U.N. Number TDG Classification Product Use Emergency Phone No. METHANOL^Y Methyl alcohol, methyl hydrate B2, D1A 1230 TDG Class 3.2 and 6.1, Packing Group II Solvent, fuel, feedstock 1-403-527-8141

2. HAZARDOUS COMPONENTS

	WL %	CAS No.	LD50	LC50
Metliyi Alcohol	99.85%	57-56-1	6.2-13.0 g/kg (Oral, rat) 20 ml/kg (Dermal, rabbit)	64,000 ppm (Rat, inhal.)

3. POTENTIAL HEALTH EFFECTS

Skin Contact: Yes	Skin Absorption: Yes	Eye Contact: Yes				
Ingestion Yes	Inhalation: Yes					
Exposure Limits	Methyl alcohol: ACGIH 1LV-TWA OSHA PEL = 200 ppmL STEL = 25	= 200 ppm, STEL = 250 ppm - Skin notation 0 ppm - Skin				
Irritancy of Product Sensitization	1000 ppm in air may cause initation No	of mucous membrane				
Synergism with	Not available	•				
Short Term Effects	Swallowing even small amounts of i other effects may be nausea, heada disturbances ranging from blurred v airborne concentration can also infit sleepiness, nausea, confusion, loss disturbances and death. NOTE: The times higher than the TLV-TWA. Hig courses initiation, tearing and burning toxic or lethal amounts. Causes mil	methanol can cause blindness and death inche, abdominal pain, vomiting and visual rision to light sensitivity. Inhalation of high ate mucous membranes, cause headaches, of consciousness, digestive and visual ne odor threshold of methanol is several gh vapor concentration or liguid contact g. May be absorbed through the skin in in initiation, reduess, cracking and during				
Long Term Effects	Repeated exposure by inhalation or brain disorders, impaired vision and conditions such as emphysema or b cause irritation, dryness and crackin	absorption may cause systemic poisoning, blindness. Inhalation may worsen pronchitis. Repeated skin contact may				
Reproductive Effects	Reported to cause birth defects in ra	ats exposed to 20,000 ppm				
Mutacenicity	No					
Carcinogenicity	Not listed with IARC, NTP, ACGIH o	r OSHA as a carcinogen				
	•					

Novacor Chemicals Inc., One Gatehall Drive, Parsippany, New Jersey, USA, 07054



Novacor

METHANOL MATERIAL SAFETY DATA SHEET

4. FIRST AID INFORMATION

SkinRemove contaminated clothing and wash under shower with soap and water for
15 minutes. Seek medical attention if irritation occurs.EyeFlush immediately with gently running water for 15 minutes, ensuring all
surfaces and crevices are flushed. Obtain medical attention.InhalationRemove to fresh air, restore or assist breathing if necessary, obtain medical
attention immediately.IngestionSwallowing methanol is life threatening. If conscious and medical aid is not
immediately available, dilute stomach contents by giving large amounts of water
or milk and induce vorniting. Transport to medical attention immediately.

In the presence of an ignition source.

5. FIRE AND EXPLOSION HAZARD

Flammable/Combustible (yes/no) If yes, under what conditions? Extinguishing Media

Special Firefighting Instructions

Flashpoint and Method

Lower Explosive Level

Upper Explosive Level

Impact/Shock Sensitivity

Hazardous Combustion

Auto Ignition Temp.

.....e of Burning

Sensitivity to Static Discharge

Products

(% volume)

(% volume)

Water spray, dry powder, AFFF (Aqueous Film Forming Foam). Alcohol resistant type with 6% foam proportioning equipment or CO_2 Methanol burns with a clean clear flame which is almost invisible in daylight. Concentrations of greater than 20% methanol in water can be ignited. Water may be ineffective depending upon depth of methanol burning. Use fine water spray or fog to control fine spread and cool structures or containers. Fire fighters must wear full face, positive pressure, self-contained breathing apparatus or airline and appropriate protective clothing. 11°C (52°F)(TCC)

6 %

Yes

36 % 385°C (725°F) Not available Not available

Low

Toxic gases and vapors; oxides of carbon and formal dehyde.

6. REACTIVITY DATA

Commically Stable (yes/no) If no, under what conditions? Incompatible with	Yes Not applicable
other substances	Yes
If yes, which ones?	Strong oxidizers, strong acids, strong bases. May be corrosive to lead an 1 aluminum
Conditions of Reactivity	Presence of incompatible materials and ignition sources.
Hazardous Decomposition	
Products	Formaldehyde and carbon monoxide
Hazardous Decomposition Products	Formaldehyde and carbon monoxide

Novacor Chemicals Inc., One Gateball Drive, Parsippany, New Jersey, USA, 07054

ISSUE DATE: November 16, 1992



METHANOL MATERIAL SAFETY DATA SHEET

7. SPILL AND LEAK RESPONSE

Splii or Leak Response

Extremely flammable flouid. Release can cause an immediate fire/explosion hazard. Eliminate all ignition sources, stop spill and use absorbent materials. If necessary, contain spill by diking. Maximize methanol recovery for recycling or reuse if applicable. Collect liquid with explosion proof pumps. For small spills, collect with a non-combustible sorbent. Recover methanol or dilute with water to reduce lire hazard. Prevent it from entering sewer, confined spaces, drains or waterways. Restrict access to unprotected personnel. Full-face, positive pressure self- contained breathing apparatus or airline and protective clothing must be worn.

Waste Disposal

Inclineration is the recommended disposal method. Biodegradation may be used on dilute aqueous waste methanol. Methanol wastes are not suitable for underground injection. Waste materials must be disposed of in accordance with your municipal, state, provincial and federal regulations. Contact the proper authorities for specific instructions or contact the 24 HOUR EMERGENCY NUMBER: (403) 527-8141.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

Engineering Controls

In confined areas, local and general ventilation should be provided to maintain airborne concentrations below permissible exposure limits. Ventilation systems must be designed according to approved engineering standards.

PERSONAL PROTECTIVE EQUIPMENT Gloves 'Butyl ark Respiratory NIOSH a

Butyl and nitrile rubbers are recommended. Check with glove manufacturer. NIOSH approved supplied air respirators; NIOSH approved cartridges to the best of our knowledge are NOT available because of poor warning properties. Face shield and safety glasses with side shield when transferring is taking place. Chemical resistant. Wear chemical resistant pants and jackets, preferably butyl or nitrile rubber.

Other

Eye

Footwear

Clothing

Check with manufacturer.

Not available

PPE must not be considered a long term solution to exposure control. PPE must be accompanied by employer programs to properly select, maintain, clean, fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

9. STORAGE AND HANDLING REQUIREMENTS

Storage

Handling

contact. Tanks must be grounded and vented and should be nitrogen blanketed. Tanks must be diked. Avoid storage with incompatible materials. No smoking or open fiame in storage, use or handling areas. Use explosion proof electrical equipment. Ensure proper electrical grounding procedures are in place. All shipments of methanol must be properly classified, described, packaged,

Store In totally enclosed equipment, designed to avoid ignition and human

All shipments of methanol must be properly classified, described, packaged, marked and labelled to conform with regulations set by Transport Canada, Transportation of Dangerous Goods Regulations and U.S. Department of Transport (DOT), Bureau of Explosives and Hazardous Materials Regulations.

Novacor Chemicals Inc., One Gatehall Drive, Parsippany, New Jersey, USA, 07054

ISSUE DATE: November 16, 1992

Shipping Information



Novacor

METHANOL MATERIAL SAFETY DATA SHEET

10. PHYSICAL DATA

Physical State Odor Odor Threshold Appearance Specific Gravity Freezing Point **Boiling Point** Vapor Pressure Vapor Density (air=1) Evaporation Rate (n-Butyl acetate=1) Volatile, Percent by Volume Solubility in Water at 20°C pH. Water/Oil Distribution Coefficient

I.lquid Silght alcohol odor 2000 ppm, Irritation at 1000 ppm, poor warning properties Clear, colorless 0.792 ($\frac{14}{2}O = 1$) $-97.8^{\circ}C$ ($-144^{\circ}F$) $64.5^{\circ}C$ ($148^{\circ}F$) $96 \text{ mm Hg at 20^{\circ}C}$ ($68^{\circ}F$) $1.105 \text{ at } 15^{\circ}C$ ($59^{\circ}F$)

2.1 100% Soluble Not available

Readily soluble in water, separates from oil.

REGULATORY INFORMATION

Transportation

WHMIS - Canada OSHA - USA Other Canadian TDG: Methanol, Flammable Liquid, 3.2 (6.1), UN 1230, Packing Group II USA DOT: Methyl Alcohol (RQ 5000/2270), Flammable Liquid, UN 1230) B2, D1A Hazardous according to 29 CFR 1910.1200 OSHA 29 CFR 1910.1200: Hazardous NFPA Rating: Health = 1, Fire = 3, Reactivity = 0

12. SUPPLEMENTAL INFORMATION

NOTES TO PHYSICIAN: Acute exposure to methanol, either through ingestion or breathing very high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours. Symptoms and signs are usually limited to the CNS eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with lpecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

Novacor Chemicals Inc., One Gateball Drive, Parsippany, New Jersey, USA, 07054

ISSUE DATE: November 16, 1992



METHANOL MATERIAL SAFETY DATA SHEET

13. PREPARATION INFORMATION

Prepared by

Novacor Chemicals Ltd. Toxicology and Product Safety P.O. Box 2535, Station M Calgary, Alberta T2P 2N6 Telephone: 1-403-290-6023

Date of Issue Previous Issue November 16, 1992 July 17, 1992

References Used

American Conference of Governmental Industrial Hygienists, Documentation of Threshold Limit Values, 1991-1992 Proctor & Hughes Chemical Hazards of the Workplace (1978) CCOHS 92-2 and Methanol Chemical Infogram Clinical Toxicology of Commercial Products, 5th Edition Dangerous Goods Initial Emergency Response Guide 1992, Transport Canada

Indicates the location of a change from the previous issue of this MSDS.

For additional copies of this MSDS, please call (403)-527-8141 extension 225

AN Howacor is a trademark of NOVA Corporation of Alberta used under licence

The above represents our present knowledge about this product. Work is continuing to assess the properties and characteristics for compliance under new governmental laws and regulations as they are ratified.

Novacor Chemicals Inc., One Gatelial Drive, Parsippany, New Jersey, USA, 07054

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Printed 12-15-1989	MATERIAL SAFETY DATA SHEET	Page 1
07 CTR) 1057 EM	USION BREAKER ONT	ERMEDIATE
1 - GENERAL INFORMATION	,	· · · · · · · · · · · · · · · · · · ·
CHEMLINK PETRULEUM 9100 W. 21ST STREET SAND SPRINGS, UK / 800/424-9300 Chem1 800/444-8969 Emerg 918/245-2224 Intor	'4063 Trec jency mation	•
IRADE NAME OFC 1057 EMULSION E Generic Name Alkylaryl Sulfonic Doi Pruper Shipping Alkylaryl Sulfunic Doi Hazard Class Corrosive Material	MSDS NU.: 3-002866 3REAKER INTERMEDIATE DATE REVISED: 02-26-87 ACID NAME UN/NA NUMBER ACID UN 2584	
2 - SUMMARY OF HAZARDS		
DANGER Physical Hazards:	CORROSIVE TO METALS SLIGHTLY CUMBUSIIBLE LIQUID	
ACUTE HEALTH EFFEC (Short-term)	TS: EXTREME INHALATIUN HAZARD Corrosive tu eyes Corrusive tu skin High ingestion hazard No skin absorp. Hazard identified from data found	
CHRUNIC HEALTH EFF (LONG-TEKM)	ECTS: NO LONG TERM HEALTH HAZARUS HAVE BEEN AITRIBUTED TO THIS MATERIAL. IN GENERAL, REPEATED CONTACT WITH EVEN SMALL AMOUNTS OF A CURRUSIVE IRRITANT CAN CAUSE DERMATITIS AND SHOULD BE AVOIDED.	
3 – COMPONENTS		
COMPUNENT NAME	CAS NUMBER % COMPOSITION BY (WT.)	
1KADE SECRET 2866- *SULFURIC ACID	01# 7664-93-9 1	
* THIS IS A SARA SE	CTION 313 LISTED CHEMICAL	
4 - PHYSICAL AND CHEMI	CAL DATA	
BOILING POINT N/DA FREEZING PDINT N/DA SPECIFIC GRAVITY (1 1.06 VISCUSITY UNITS, TA GT 100 100F VAPUR PRESSURE LT 1.0 MM HG VAPUR SP GR (AIR=1 GT 1.0 APPEARANCE AND UNU DARK BROWN LIQUID	PH LT 3.0 DRY PDINT N/DA H20=1 AT 39.2F) VOLATILE CHARACTERISTICS SLIGHT EMP. (BROOK) SOLUBILITY IN WATER COMPLETE STABLLITY AT 70F STABLE AT 70F STABLE AT 60 - 90F) HAZARDOUS POLYMERIZATION NOT EXFECTED TO OCCUR R \$ STRONG ACID ODOR.	

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ÖFC(R) 1 MSDS ID: 6-002866	057	ENU	SIO	N BRE	AKER	NTERMEDIA	ТЕ
4 - PHYSICA	L AND CI	HEMICA	L DATA (c	continued)			
	CONDITIONS AI	ND MATERIA	LS TO AVOID				
	CORROSIVE TO Strong Oxid Hazardous De	D STEEL, B Izing Agen Compositio	RASS AND ALUMI TS, Alkali and N products	NUM. MOST METALS.		ι	
	OXIDES OF S	ULFUR, CAR	BON DIOXIDE, H	YDROGEN.			
5 - OCCUPAT	CIONAL E	XPOSUR	E LIMITS				
	SUBSTANCE	SOURCE	DATE TYPE	VALUE	TIME		
	SULFURIC ACI	D Osha	1971 TWA	1 MG/M3	8 HRS		
6 - FIRE AM	ND EXPLO	SION					
	FLASH POINT GT 200F FLAMMABLE LI LOWER: N FIRE AND EXP ON CONTACT OCUR AND G ERATE THE B EXPUSED TO OVERPRESSUR EXTINGUISHIN DRY CHEMICA CO2 WATER SPRAY WATER SPRAY WATER FUG SPECIAL FIRE DO NOT ENTE SITION PROU DO NOT PUT TIUN. ALLOW LIMIT EXPOS SPRAY/FOG I SOURCES. NO	METHOD=(P MITS (* VO /DA LOSION HAZ WITH ORDIN ENERATE HI IGNITION S E CAN ALSO IG MEDIA IL FIGHTING F R FIRE ARE NUCTS POSS OUT FLAMMI S BURNUT SED AREA. ID DISPERSI DTIFY AUTH	MCC) DLUME IN AIR) ZARDS HARY METALS (SI Ighly Flammable Other combust: Joccur, Ruptur Doccur, Ruptur Ible. Fight Fi Able gas fire Iffraafter. If Iffraafter. If If vapor unign E vapors beluw Drities If Liq	AUTOIGNITION 1 UK UPPER: N/C E HYDROGEN GAS. RE BLE MATERIALS. W CAN BURN IN OPEN RING CLOSED CONTAN BEFORE GAS FLOW S UNSTOPPABLE FLOW ITED, DO NOT ENTE FLAMMABLE LIMIT. UID ENTERS SEWER/	EMP. METHOD= A ALUMINUM) CORROSI LEASED GASES MAY IEN MIXED WITH AIR OR EXPLODE IF CON NERS. NERS. URENTER SPRAY. A AREA. USE WATER EXTINGUISH ALL II PUBLIC WATERS.	UN MAY ACCEL- : AND IF INED. FINED. 2009- 2010 2010- 2010 2010 2010 2011 2010 2011 2010 2011 2010 2011 2010 200	
7 – HEALTH	HAZARDS						
	ROUTES OF EX INHALATION EXPOSURE F CULLAPSE, M UNLIKELY EX EYE CONTACT MAY CAUSE SKIN ABSORP NO SIGNIFI EXPECTED T SKIN IRRITA MAY PRODUC INGESTION INGESTION OF THE MOU MEDICAL CON IHIS MATER OTHERWISE	KPOSURE DR EVEN A AND DEATH. XCEPT IF M PRIM DESTRUCTIO TION CANT SIGNS D OCCUR AS TION E SKIN IRR DF THIS MA TH, THROAT DITIONS AG IAL OR ITS AGGRAVATE	SHORT TIME MAY However, oue Aterial Was at Ary Route N of eye tissu OR Symptoms I A Result of S Primary Route Itation, blist Terial May Cau , and Gastroin Gravated by ex Emissions May Existing Skin	CAUSE COUGHING, TO LOW VAPUR PRES ELEVATED TEMPERA DE. NDICATIVE DF ANY KIN ABSORPTION EX TERING, ULCERS, AN USE CORROSION OR I NTESTINAL TRACT. KPOSURE COEFAT SKIN, CAUS OISEASE.	SHORTNESS OF BREA Sure inhalation w Ture and/or press Health Hazard Are Posure. D deep scarring. Rritation of the E contact dermati	TH, OULD BE URES. LININGS TIS, OR	

Printed 12-1	1989	1-1	AICKIAL S	ALEIT DATA SHEET		Page 3
ю F C 1R) Ч MSD5 ID: 6-002866	057	EMU	SION	BREAKER	WNTERME	DIATE
7 - HEALTH	HAZARDS	(continu	ed)			
8 - PROTECT	TIVE EQU	IPMENT /	CONTROL M	EASURES		
	RESPIRATORY I IF EXPOSURE SUPPLIED AIM IN THE NIDSI EYE PROTECTIN EYE PROTECT BE WORN WHEN LIQUID AIRB SKIN PROTECT FULLY ENCLO GLOVES, BOO CLEAN AFTER ENGINEERING BOIH LOCAL MELT EXPOSU OTHER HYGENT EMERGENCY E IMMEDIAIE V OTHER WURK P THIS MATERI BASES SOCH SAFE AND PR	PROTECTION CAN EVEN APPRO RESPIRATOR OP I/OSHA 1981 OCC IN ION INCLUDING E POSSIBILITY E DRNE PARTICLES ION SED IMPERVIOUS IS, SELF-CUNTAI EACH USE. CUNTRULS EXHAUST AND GEP RE STANDARD(S) C PRACTICES YE WASH FOUNTAI ICINITY OF ANY RACTICES AL SHOULD NOT E AS CAUSTIC OR O OPER CHEMICAL	ACH THE PEL/TLU ERATED IN A POS UPATIONAL HEALT INT CHEMICAL SF IXISTS FUR EYE (OR VAPOR. CONTR PROTECTIVE SUIT INED OR SUPPLIES NERAL KOOM VENT INS AND SAFETY S PUTENTIAL EXPO BE DILUTED WITH AMMONIA EXCEPT ENGINEERING PRO	Y, USE ONLY NIOSH/MSHA APPE BITIVE PRESSURE MODE AS SPE IN GUIDELINES FOR CHEMICAL PLASH GOGGLES AND FACE SHIE CONTACT DUE TO SPLASHING/SF ACT LENSES MUST NOT BE WOR T WITH INTEGRAL OR TIGHT-F D AIR RESPIRATOR MUST BE WO LLATION ARE USUALLY REQUIR SUBJES SHOULD BE AVAILABLU SUBJES OR NEUTRALIZED WITH UNDER SUPERVISION AND FULL CEDURES.	IOVED CIFIED HAZARDS. ELD MUST PRAYING N. LITTING JRN. ED TO E IN THE STRONG UWING	
9 – EMERGE	NCY AND	FIRST AID)			
	INHALATIUN IF OVERCOME DXYGEN OR A ATTENTION. EYE CUNTACT FOR EVEN MI MINUTES. R PROMPT ACTI SKIN CONTACT FUR EVEN MI IHUROUGHLY IF STICKY,L INGESTION IF SWALLOWE CONSCIOUS/F DBTAIN EMEF EMERGENCY ME MAINTAIN A OXYGEN IMMI IF EYE PAID OPTHALMULDI	BY EXPOSURE, KTIFICIAL RESP PROMPT ACTION NUR EYE CONTAC ETRACT EYELIDS ON IS ESSENTIA NUK CONTACT, IN WITH MILD SOAP ISE WATERLESS C D, GIVE LOKEWA RLERT. DU NUT I GENCY MEDICAL DICAL TEATMEN KWAY. EF PATI DIATELY. CPR I, BLINKING, TE SIST.	REMOVE VICTIM T IRATION AS NEED IS ESSENTIAL. T, IMMEDIATELY OFTEN. UBTAIN L. MMEDIATELY REMO /WATER. FLUSH W LEANER FIRST. O RM WATER OR MIL NDUCE VOMITING ATTENTION. T PROCEDURES ENT IS CYANOTIC MAY BE INDICATE AKS, OR REDNESS	O FRESH AIR IMMEDIATELY. G ED. OBTAIN EMERGENCY MEDIC RINSE WITH CLEAN WATER FOR EMERGENCY MEDICAL ATTENTI VE CONTAMINATED CLOTHING/W ITH LUKEWARM WATER FUR 15 BTAIN EMERGENCY MEDICAL AT K (PINT) IF VICTIM COMPLET BECAUSE OF CURRUSIVE EFFEC C. PROVIDE ARTIFICIAL VENTI D. CONTINUE, PATIENT SHOULD	IVE AL 20-30 UN. ASH SKIN MINUTES. TENTION. ELY TS. LATION/ CUNTACT	
10 - SPILL	AND DIS	POSAL			·	
	PRECAUTIONS MAY CONTAM LIFE/IRRII SMALL SPIL COLLECTED REPORT PER WASTE DISPU CONTAMINAT SIVE) BASE PERMITTED	IF MATERIAL IS INATE WATER SUP AFE EYES AND SK L. USE NUN-COF WASIE. UN WATE REGULATORY REG SAL METHODS EU PRODUCT/SOIL D UN PH (SEE. 4 SITES. USE REGJ	SPILLED OR REL PPLIES/CORKODE K (IN. IMPOUND/RE (KODABLE DISPOSI ER, CUNTAIN/MIN NUIREMENTS. ./WATER MAY BE 1 40 CFR 261 AND 1 ISTERED TRANSPOL	LEASED EQUIPMENT/ BE TUXIC TO AQUI ECOVER LARGE LAND SPILL; SI AL CONTAINERS. NEUTRALIZE IMIZE DISPERSION/CULLECT. RCKA/OSHA HAZARDOUS WASTE 29 CFR 1910). LANDFILL SOL RTERS. ACIDIC OR ALKALINE (ATIC DAK UP (CURRO- 105 AT AQUEUUS	

Printed 12-15	-1989	MATERIAL SA	FETY DATA SHEET		Page 4
	057 EMU	SION	BREAKER	NTERME	DIATE
10 - SPILL A	ND DISPOSAL (c	ontinued)			
	WASTE MAY BE DISCHARGED Neutralized, or treated (Complies With Applicable	TO PUBLIC WATERS A AND IS FREE OF FLO Regulations.	FTER IT HAS BEEN DILUTED, Ating dil. Assure dischargi	E	
11 - ADDITIC	NAL PRECAUTION	S 		·	
H D	ANDLING AND STORAGE PROC MATERIAL SAMPLING PROCED Contact and UNLY BE COND Care When Handling/Trans Vented Containers With V Personnel Exposure. All Posure. Handle "Empiy" Econtamination procedure When Cleaning or Repairi Tutal-Encapsulating IMPE BE WORN TO PREVENT ANY C BREATHING APPARATUS AND/	EDURES URES SHOULD AVOID UCTED WITH PROPER PORTING SAMPLES. S ENTS DIRECTED TO L CONTAINERS SHOULD CONTAINERS WITH CA S NG EQUIPMENT CONTA RVIOUS PROTECTIVE ONTACT. A POSITIVE UR A SUPPLIED AIR	VAPOR INHALATION AND SKIN/E PROTECTIVE EQUIPMENT. USE S TURE IN TIGHTLY CLOSED/PROP OCATIONS REMOVED FROM POTEN BE LABELLED TO WARN AGAINS KE/RESIDUE MAY BE COMBUSTIB MINATED WITH THIS MATERIAL, SUITS, GLOVES, AND BOOTS SH PRESSURE SELF-CONTAINED RESPIRATOR SHOULD BE USED.	YE PECIAL ERLY TIAL T EX- LE. UULD	
12 - LABEL 1	INFORMATION		· · · · · · · · · · · · · · · · · · ·		
U S F H	SE STATEMENT FOR INDUSTRIAL USE ONLY KEEP OUT OF REACH OF CHI IGNAL WORD DANGER HYSICAL HAZARDS CORROSIVE TO METALS COMBUSTIBLE EALTH HAZAROS EXTREME INHALATION HAZAR CORROSIVE TO EYES CORROSIVE TO SKIN HIGH INGESTION HAZARD RECAUTIONARY MEASURES	LOREN	-1 MF		
	DU NOT STORE NEAR COMBUS STORE IN TIGHTLY CLOSED DO NOT GET IN EYES. AVOID CONTACT WITH SKIN. HAVE AVAILABLE EMERGENCY PREVENT CONTACT WITH FOU DO NOT TASTE/SWALLOW.	TIBLE MATERIALS. CONTAINERS. SELF-CONTAINED O D, CHEWING, UR SM	R SUPPLIED AIR RESPIRATOR. DKING MATERIALS.		
13 - SUPPLE	MENT				
	IN PURE FORM, THIS MATER EYES, SKIN, AND MUCOUS DILUTED IN WATER, AS A M BE SELF-LIMITING DUE TO SUPPLEMENT TO COMPONENT IN A CASE CONTROL EPIDER ACID WAS FOUND TO INCRE 4. (INHALATION ROUTE) (1983)	RIAL IS A STRONG A MEMBRANES. ITS CO FUNCTIUN OF ITS PH THE IRRITANT PROP HEALTH HAZARDS - MIOLOGY STUDY (COH ASE THE RISK FOR SUSKOLNE AND ZEIGH	CID WHICH CAN BE CORROSIVE RROSIVITY WILL DIMINISH WHE . EXPOSURES WOULD BE EXPEC ERTIES OF THIS MATERIAL. SULFURIC ACID UKT 50; CONTROLS 50), SULFU LARYNGEAL CANCER BY A FACTO AMI, AM. J. EPIDEMIOL 118:	TO N TED TO R OF 151,	
	THIS SIUDY HAS NOT BEEN Small cohort in the stu Found in the search, it Carcinogen.	CONFIRMED. HOWEVE Dy and the fact t may be prematore	R, BECAUSE OF THE RELATIVEL HAT NO OTHER FOSILIVE STUDY TU LABEL SULFURIC ACID A HU	Y WAS MAN	

Printed 12-15-1989	MATERIAL SAFETY DATA SHEET	Page 5
OFO(R) 1057 EM	USION BREAKER ONTE	RMEDIATE
13 - SUPPLEMENT (contin	nued)	
ACID MUST BE TRANSF Any Such Hose in de Service.	ERRED THROUGH HUSE RATED AND CERTIFIED FOR THIS SERVICE. Teriorated physical cundition must nut be used in this	
EMPTY CONTAINER SHO Water. The Rinse of	JULD BE THOROUGHLY RINSED WITH COPIOUS AMOUNTS OF CLEAN ATER SHOULD BE PROPERLY DISCARDED.	
NDTE QUALIFIERS EQ = EQUAL LT = LESS THAN IR = TRACE N/AP = NOT APPLI N/DA = NO DATA F	5 AND CODES USED IN THIS MSDS AP = APPROXIMATELY N GT = GREATER THAN UK = UNKNUWN ICABLE N/P = NU APPLICABLE INFORMATION FOUND AVAILABLE	
14 - DISCLAIMERS		
SOME OF THE INFORMAT Sources other than i	TION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM Direct test data on the product itself.	
THE INFORMATION IN I AKE RELIABLE. HOWEN EXPRESS OR IMPLIED,	THIS MSUS WAS OBTAINED FRUM SOURCES WHICH WE BELIEVE Ver, the information is provided without any warranty, Regarding its curreciness.	
THE CONDITIONS OR MU PRODUCT ARE BEYOND O AND OTHER REASONS, 1 LIABILITY FUR LOSS, CONNECTED WITH THE (ETHODS OF HANDLING, STORAGE, USE AND DISPOSAL UF THE UUR CONIRUL AND MAY BE BEYUND UUR KNOWLEDGE. FOR THIS WE DO NUT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM DAMAGE UR EXPENSE ARISING OUF OF UR IN ANY WAY HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.	
THIS MSDS WAS PREPAI Pruduct is used as i May nut be applicab	RED AND IS TO BE USED UNLY FOR FHIS PRODUCT. IF THE A component in another product, this msds information Le.	
THIS MSDS HAS BEEN I Osha hazako communi	PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CATION STANDARD (29 CFR 1200).	

Printed 07-12-	.1989 ^M	TERIAL SAFETY DATA SHEE	Page 1
OFC(R) · · 1 @ MSDS ID: 6-002702	85 EMUL	SION BREAKER	NTERMEDIATE
1 - GENERAL I	NFORMATION		
CH 91 SA 80 80	EMLINK PÊTROLEUM 00 W. 21ST STREET ND SPRINGS, OK 74063 0/424-9300 ChemTrec 0/232-1616 Emergency		
80 91 03 D01 C0 D01 C1	10//22-5660 IN UKIANOMA 8/493-4347 Dut Cont. US ALKYLATED PHENOLIC RESIN PROPER SHIPPING NAME IMBUSTIBLE LIQUID, N.O.S. HAZARD CLASS MBUSTIBLE LIQUID	DATE REVISED: 4-19 Un/NA NUMBER NA 1993	-89
NFF Doʻ	A CLASSIFICATION: HEALT Spect G/Cercla RQ: 7400 LBS	H:(1) FLAMMABILITY:(2) REACTIVITY:(0 FIC HAZARD:(N/A) (XYLENE))
2 - SUMMARY (DF HAZARDS		
NA Pi	RNING Hysical Hazards:	MODERATELY COMBUSTIBLE LIQUID	
AC	UTE HEALTH EFFECTS: (SHORT-TERM)	NO DATA FOUND; SUSPECT INHALATION HAZARI No data found; suspect eye contact hazar No data found; suspect skin ikritation i No data found; suspect ingestion hazard No data found on skin absorption) RD HAZARD
C	HRONIC HEALTH EFFECT: (Long term)	SEE SUPPLEMENT,	
3 - COMPONEN	TS		
۵۵ * X با ۲	MPONENT NAME YLENE EAVY AROMATIC SOLVENT RADE SECRET 2702-01# THIS IS A SARA SECTION 3	CAS NUMBER % COMPOSITIO 1330-20-7 < 64741-68-0 3 LISTED CHEMICAL	OH EY (WT.) 19
4 - PHYSICAL	AND CHEMICAL	ATA	
BC FF SF U) H U VI	ILLING POINT P 280F EEZING POINT //DA ECIFIC GRAVITY (H20=1 AT P 1.02 SCOSITY UNITS, TEMP. 4/DA POR PRESSURE 4.5 MM HG AT 70F AFOR SF GR (AIR=1 AT 60 - 4/DA	PH N/DA DRY POINT N/DA 39.2F) VOLATILE CHARACTERISTICS SLIGHT SOLUBILITY IN WATER SLIGHT STABLE 90F) H92ARDOUS POLYMERIZATION NOT EXPECTED TO OCCUR	

Printed 07-1	2-1989		MAI	ERTHP 9		Σ set i dia na di	Page 2
	0.8 2	EMU	L	ION	BREAK	KER I	TERMEDIATE
4 - PHYSICA	L AND CH	IEMICAL	DAT	'A (cont	inued)		
	AFPEARANCE AN DARK BROWN L Conditions an Heat and ope Stong Oxidiz Hazardous dec Incomplete (ID ODOR IQUID - AL ID MATERIAL IN FLAME ING AGENTS OMPOSITION COMBUSTION	.COHOL D .S TO AV 5; Stron 9 produc May pro	DOR OID Ig alkalies Its Iduce carbon	MONOXIDE AND/OR	OXIDES OF SULFUR,	
5 – OCCUPAI	IONAL EX	POSURI	ELIM	ITS			
	SUBSTANCE	SOURCE	DATE	TYPE	VALUE	TIME	
	XYLENE	OSHA Acgih	1971 1987	PEL TWA STEL	100 PPM 100 PPM 150 PPM	8 HRS 8 HRS 15 MIN	
6 - FIRE AN	ID EXPLO	SION					
	FLASH POINT 103F FLAMMABLE LI AT NORMAL AT LOWER: FIRE AND EXP WHEN HEATED EXPOSED TO VAPORS MAY BEFORE IGNI COMBUSTIBLE EXTINGUISHIN DRY CHEMICA CO2 WATER SPRAY FOAM WATER FOG SPECIAL FIRE DO NOT ENTE SITION PROU HEAI MAY BU ING RISK OF STEAM EXFLO NOT BE PRAU IF LIQUID E	METHOD = MITS (% VO MOSPHERIC 1.0 LOSION HAZ ABOVE FLA IGNITION S BE HEAVIER TING/FLASH AT TEMPER G MEDIA L FIGHTING P R FIRE ARE VCTS POSSI ILD PRESSI SION. BURNS/IN. SION. BURNS/IN. TICAL TO E NTERS SEVE	LUME IN TEMPERA ARDS SH POIN OURCE, THAN A ING BAC ATURES ING LIQ ELE. FI JRE/RUPT JURIES, ING LIQ EXTINGUI R/PUBLI	AU AIR) TURE AND PRES TURE AND PRES TURE AND PRES T, RELEASES I VAPORS CAN B IR. MAY TRAVI K TO VAPOR S BELOW NORMAL BELOW NORMAL BELOW NORMAL SH FIRE FRO UID MAY FLOA SH FIRE BY W C WATERS.	TOIGNITION TEMP. 867F SSURE UPPER: 7.0 VAPORS. WHEN MIX URN IN OPEN OR E EL LONG DISTANCE OURCE. FINE SPRA FLASH POINT. SAFE DISTANCE/ ONTAINERS, SPREF GAY/FOG FDR COOL T ON WATER. ALTH ATER OILUTION. N	METHOD= ED WITH AIR AND XPLODE IF CONFINED. S ALONG GROUND YS/MIST MAY BE YS/MIST MAY BE CTION 4 - DECOMPO- YROTECTED LOCATION. DING FIRE, INCREAS- ING.AVOID FROTHING/ NOUGH SOLUBLE, MAY ROTIFY AUTHORITIES	
7 – HEALTH	HAZARDS		~_				
•	ROUTES OF EX Inhalation Prolonged (And intoxi) Eye contact Although NI Exist, thi Skin Absorp No Signifi Expected t S%in irrita Although N Exist, thi	KPOSURE PRIMA DVEREXPOSUI CATION. PRIMI D APPROPRI S MATERIAL TION CANT SIGNS O OCCUR AS TION O APPROPRI S MATERIAL	RY ROUTE RE MAY C ATE HUMA IS EXPE OR SYME A RESU PRIMARY ATE HUME IS EXPE	EAUSE COUGHIN TE AN OR ANIMAL ECTED TO CAUS PTOMS INDICAT LT OF SKIN AU ROUTE AN OR ANIMAL ECTED TO BE T	IG, SHORTNESS OF HEALTH EFFECTS I Se severe eye ir five of any heal 35000000000000000000000000000000000000	BREATH, DIZZINESS Data are known to Ritation. Th Hazard are Re. Data are known to Ritant.	

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Printed 07-1	12-1989	1 1/		NET PAR SHORT		Page 3
OFC(R) 1 MSDS ID: 8-002702	Q85	EMUL	SION	BREAKER		DIATE
7 – HEALTH	HAZARDS	(continue	ed)			
	INGESTION NO DATA AVA THE LUNGS C MEDICAL COND THIS MATERI AGGRAVATE P	ILABLE. INGESTIC AUSING CHEMICAL ITIONS AGGRAVATE AL OR ITS EMISSI RE-EXISTING DISC	DN OF THIS MATE Preumonia. 20 by exposure 10ns may affect Drders. prolon(ERIAL MAY RESULT IN ASPIRATI T THE CENTRAL NERVOUS SYSTEM Ged observation may be indic	ON INTO 1 Ang/or Cated.	
8 - PROTECT	rive equ	IPMENT / (CONTROL M	1EASURES		
	RESPIRATORY IF EXPOSURE TECTION EQU GUIDELINES EYE PROTECTI EYE PROTECTI MUST BE WOR LIQUID OR F SKIN PROTECT IMPERVIOUS PROTECTION EACH USE. ENGINEERING AT ELEVATED FLASH POINT ERATED BELO OTHER HYGEN EMERGENCY E IMMEDIATE V OTHER WORK F SMOKING, D THOROUGHLY	PROTECTION EXCEEDS THE PEI IPMENT AS SPECI FOR CHEMICAL HAI ON ION, INCLUDING I N WHEN POSSIBIL IRBORNE PARTICL ION PROTECTIVE SUIT MUST BE WORN. T CONTROLS TEMPERATURES, HAS NOT BEEN E IN THE FLASH POI I.C PRACTICES YE VASH FOUNTAI VICINITY OF ANY PRACTICES INSONAL HYGIENE & USING TOILET F BEFORE REUSE. S	L/TLV, USE NID FIED IN THE NIJ ZARDS. BOTH CHEMICAL ITY EXISIS FOR ES. CONTACT LE WITH GLOVES, HE EQUIPMENT M SPECIAL VENTIL XCEEDED. FLAMM NT OF HIGH BOI NS AND SAFETY POTENTIAL EXPO PRACTICES. WAS ACILITIES. PRO HOWER AFTER WO	SH/MSHA AFPROVED RESPIRATORY OSH/OSHA 1981 OCCUPATIONAL F SPLASH GOGGLES AND FACE SHIE EYE CONTACT DUE TO SPRAYING NSES MUST NOT BE WORN. BOOTS, AND FULL HEAD AND FAC UST BE CLEANED THOROUGHLY AN ATION MAY BE REQUIRED EVEN ABLE MISTS OR AEROSOLS CAN I LING LIQUIDS. SHONERS SHOULD BE AVAILABLE USURE. SHONERS SHOULD BE AVAILABLE USURE. SHONERS SHOULD BE AVAILABLE USURE.	Y FRO- HEALTH ELD, CE FTER IF THE BE GEN- IN THE IN THE KING, IG/WASH WATER.	
9 – EMERGE	NCY AND	FIRST AID				
	INHALATION IF OVERCOM OXYGEN OR ATTENTION. EYE CONTACT IN CASE OF MINUTES. SKIN CONTAC IMMEDIATEL SOAP/WATER LESS CLEAN INGESTION IF SWALLOW ALERT. DO RISK. OBTA EMERGENCY M VIGOROUS A EVIDENCE O IF INGESTI AS MAGNESI	E BY EXPOSURE, R ARTIFICIAL RESPI PROMPT ACTION I EYE CONTACT, IM RETRACT EYELIDS T Y REMOVE CONTAMI . FLUSH WITH LUK ER FIRST. DBTAIN ED, GIVE LUKEWAR NOT INDUCE VOMIT IN EMERGENCY MED EDICAL TREATMEN NTI-INFLAMMATORY F NULMONARY/UPPT ON SUSPECTED DO UM CITRATE OR SU	REMOVE VICTIM T RATION AS NEED S ESSENTIAL. IMEDIATELY RING OFTEN. OBTAIN KENARM VATER FO MEMERGENCY MED MEMERGENCY MED RM WATER (PINT) TING/RISK OF DO DICAL ATTENTION T PROCEDURES Y/STEROID TREA ER AIRWAY EDEM NOT INDUCE VON ORBITOL.	TO FRESH AIR IMMEDIATELY. GI DED. OBTAIN EMERGENCY MEDICA SE WITH CLEAN WATER FOR 20-3 N EMERGENCY MEDICAL ATTENTIO S. WASH SKIN THOROUGHLY WITH DR 15 MINUTES. IF STICKY, US DICAL ATTENTION.) IF VICTIM COMPLETELY CONSO AMAGE TO LUNGS EXCEEDS POISO N. PROMPT ACTION IS ESSENTIA TMENT MAY BE REQUIRED AT FIF A. MITING. ADMINISTER CATHARTIC	VE IL IN. H MILD Re Water- Cious/ Daing Al. RST C SUCH	
10 - SPILI	AND DI	SPOSAL				
	PRECAUTIONS Release ca Impound/re Minimize c	IF MATERIAL IS N CAUSE FIRE/EX Cover Large Lan Nispersion/colle	SPILLED OR RE PLDSION. EXTI D SPILL; SDAK CT. REPORT PE	LEASED NGUISH ALL IGNITION SOURCES UP SMALL SPILL. ON WATER, N R REGULATORY REQUIREMENTS.	ĆONTAIN/	

Printed 07-12-1989 Page 4 OFC(R): 1085 EMUSION BREAKER ONTERMEDIATE MSDS 10: 6-002702
10 - SPILL AND DISPOSAL (continued)
WASTE DISFOSAL METHODS CONTAMINATED PRODUCT/SOIL/WATER MAY &E RCRA/OSHA HAZARDOUS WASTE DUE TG POTENTIALLY LOW FLASH POINT (SEE 40 CFR 261 AND 29 CFR 1910). LANDFILL SOLIOS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS. AVOID FLAMEDUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULA- TIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.
11 - ADDITIONAL PRECAUTIONS
HANDLING AND STORAGE PROCEDURES SLIGHTLY COMBUSTIBLE. KEEP CONTAINERS CLOSED WHEN NOT IN USE. STORE AWAY FROM HEAT, SPARKS, OPEN FLAMES AND SIRONG OXIDIZING AGENTS. STORAGE TEMPERATURE - MAX. 140 F; MIN. 32 F. IF FROZEM, THAN AND MIX THOROUGHLY BEFORE USE. DECONTAMINATION PROCEDURES WHEN CLEANING OR REPAIRING EQUIPMENT CONTAMINATED WITH THIS MATCRIAL, TOTAL-ENCAPSULATING IMPERVIOUS PROTECTIVE SUITS, GLOVES, AND ROOTS SHOULD BE WORN TO PREVENT ANY CONTACT. A POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS AND/OR A SUPPLIED AIR RESFIRATOR SHOULD BE USED.
12 - LABEL INFORMATION
USE STATEMENT FOR INDUSTRIAL USE ONLY KEEP OUT OF REACH OF CHILDREN SIGNAL WORD WARNING PHYSICAL HAZARDS COMBUSTIBLE HEALTH HAZARDS INHALATION HAZARD SEVERE SKIN AND EYE IRRITANT HIGH INGESTICN HAZARD-CHEMICAL PNEUMONIA SIMILAR MATERIAL INDUCES TUMORS IN LAB ANIMALS PRECAUTIONARY MEASURES
DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME. AVOID CONTACT WITH EYES. AVOID PROLONGED OR REFEATED BREATHING OF VAPOR. AVOID PROLONGED OR REFEATED CONTACT WITH SKIN. USE WITH ADEQUATE VENTILATION. PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS. WASH THOROUGHLY AFTER HANDLING. DO NOT TASTE/SWALLOW. DO NOT TAKE INTERNALLY.
13 - SUPPLEMENT
ACUTE AND CHRONIC FEALTH EFFECTS - SECTIONS 2 AND 7 PROLONGED, REPEATED EXPOSURES TO HIGH LEVELS OF XYLENE CAN INDUCE CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DEPRESSION, DIZZINESS, NUMBNESS, TREMORS, IMPAIRED MEMORY, HEADACHE, NAUSEA AND LACK OF ACPETITE. MODERATE LIVER ENLARGEMENT, KIDNEY INVOLVEMENT AND EVEN DEATH IS POSSIBLE IF EXPOSURE IS NOT CONTROLLED. NOTE QUALIFIERS AND CODES USED IN THIS MSOS EQ = EQUAL AF = APPROXIMATELY LT = LESS THAN GT = GREATER THAN TR = TRACE UK = UHKNOWN N/AF = NOT APPLICABLE N/P = NO APPLICABLE INFORMATION FOUND N/DA = NO DATA AVAILABLE

Printed 07-12-1989		AFELI PAIA SUEEL	Page 5
OFC(R) · · 1085 MSD5 ID: 6-002702	EMUSION	BREAKER	NTERMEDIATE
13 - SUPPLEMENT (C	ontinued)		
14 - DISCLAIMERS			
SOME OF THE Sources othe	INFORMATION PRESENTED AND COM R THAN DIRECT TEST DATA ON TH	CLUSIONS DRAWN HEREIN ARE F	RCM

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THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING DUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

THIS MSDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE PRODUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THIS MSDS INFORMATION MAY NOT BE APPLICABLE.

THIS MSDS HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1200).

			97-11-5 ⁷⁻¹ -1
	MATERIAL SAF	ETY DATA SHEET	<u>ang sultan mang superior data tang superior data</u>
MSDS NUMBER: 2100 PART NUMBER: INC 2100 PRODUCT NAME: INC 2100 Emulsion Breaker Interme CAS NUMBER:0 CHEMICAL NAME: OxyAlkylated Amine	diate		
	SECT	ION I	
MANUFACTURER: / VENDOR: InterChem, Inc.	<u>, , , , , , , , , , , , , , , , , , , </u>		/
ADDRESS: 3803 Mankins Odessa, TX 79763		HEALTH: 1 FIRE: 1 DEACTIVITY: 0	HEALTH / \ FIRE
EMERGENCY TELEPHONE NUMBER: (915)550-7027		PERSONAL PROTECTION:	$\langle \rangle \langle \rangle$
INFORMATION TELEPHONE NUMBER: (915)550-7027			SPEC. HAZ.\ / REACT.
DATE PREPARED: 03/01/94			()
SECTION _	II - HAZARDOUS ING		
CAS NUMBER HAZARDOUS COMPONENT	NTP	IARC PART/Z 313 OSHA PEL ACGIH TLV RECOM	1ENDED PERCENT
75-21-8 Ethylene oxide	?	???.NI NI	Traces
SECT	ION III - PHYSICAL,	CHEMICAL CHARACTERISTICS	
BOILING POINT	NI	SPECIFIC GRAVITY (H20 = 1)	1.06200
VAPOR PRESSURE (mm Hg.)	< 1.0	MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI
SOLUBILITY IN WATER: Soluble at 70º F.	Lenge 110		
APPEARANCE AND ODOR: Slightly hazy liquid, bla	nd odor		
OTHER INFORMATION: Viscosity Units > 100 pH = 9.0 to 10.5 Freezing Point = NI Dry Point = NI			
Density (Lb./Gal.) = 8.84 DANGER Physical Hazards:-			
Generic Name:- Cleaning Compound			
UN/NA Number:- Not Regulated			
DOT Response Number:- N/App.			
DOT Proper Shipping Name:- DOT Not Regulated			
DOT Hazard Class:- N/App.			
DOT Packing Group:- N/App.			
DOT/CERCLA RQ:- N/App.			
This product does not contain any chemicals Ammendments and Reauthorization Act of 1986.	subject to the rep	orting requirements of Section 313 of Title I	II of the Superfund
SE	CTION IV - FIRE AN	D EXPLOSION HAZARD DATA	
FLASH POINT: > 200 ºF.		FLAMMABLE LIMITS: LEL: NI UEL	.: NI
EXTINGUISHING MEDIA: Dry Chemical CO2 Water Spray Water Fog			

.

MSDS NUMBER: 2100 PRODUCT NAME: INC 2100 Emulsion Breaker Intermediate

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see section V - decomposition products possible.

Fight fire from safe distance / protected location.

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

May become combustible upon loss of aqueous carrier.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

UNUSUAL FIRE FIGHTING PROCEDURES:

None.

SECTION V - REACTIVITY DATA

STABILITY:

Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Heat, sparks, open flames, and elevated temperatures.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous carbon monoxide and oxides and/or compounds of nitrogen.

HAZARDOUS POLYMERIZATION: Not expected to occur.

SECTION VI - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY:

Inhalation:-

Although no appropriate human or animal health effects data are known to exist, this material is not expected to be an inhalation hazard.

Eye contact:- Primary Route

Although no appropriate human or animal health effects data are known to exist, this material is not expected to cause eye irritation.

Skin absorption:-

Although no appropriate human or animal health effects data are known to exist, this material is not expected to be absorbed through the skin.

Skin irritation:-

Although no appropriate human or animal health effects data are known to exist, this material is not expected to be a skin irritant.

Ingestion:-

Although no appropriate human or animal health effects data are known to exist, this material is not expected to be an ingestion hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC): No Data Available.

SIGNS AND SYMPTOMS OF EXPOSURE: NT

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

SECTION VI - HEALTH HAZARD DATA (Continued)

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Administer an aqueous slurry of activated charcoal followed by a cathartic such as magnesium citrate or sorbitol.

OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

Page: 3

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS:

Ethylene Oxide may accumulate in the head space of drum and bulk containers. However, the concentration of ethylene oxide in the head space should not cause the OSHA 0.5 ppm. action level for ethylene oxide exposure to be exceeded. Ethylene Oxide is listed as a potential carcinogen by OSHA, NTP, IARC. If the product is handled as recommended in this MSDS, the trace amounts of ethylene oxide are not expected to result in acute or chronic hazards.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

	MATERIAL SAF	ETY DATA SHEET			
MSDS NUMBER: 2117 PART NUMBER: INC 2117 PRODUCT NAME: INC 2117 Emulsion Breaker Interm CAS NUMBER: – –O CHEMICAL NAME: Oxyalkylated Glycol Ester	ediate				
	SECT	ION I	<u></u>		
MANUFACTURER: / VENDOR: InterChem, Inc.			/\		
ADDRESS: 3803 Mankins Odessa, TX 79763		HMIS RATINGS: HEALTH: 1 FIRE: 1	HEALTH / \ FIRE		
EMERGENCY TELEPHONE NUMBER: (915)550-7027		PERSONAL PROTECTION:			
INFORMATION TELEPHONE NUMBER: (915)550-7027		SP	EC. HAZ.\ / REACT.		
DATE PREPARED: 03/01/94			V .		
SECTION	II - HAZARDOUS INGR	EDIENTS/IDENTITY INFORMATION			
CAS NUMBER HAZARDOUS COMPONENT	NTP	SUB- SARA OTHER LII IARC PART/Z 313 OSHA PEL ACGIH TLV RECOMMEN	1ITS DED PERCENT		
SECT	10N II1 - PHYSICAL/	CHEMICAL CHARACTERISTICS	· · · · · · · · · · · · · · · · · · ·		
BOILING POINT	NI	SPECIFIC GRAVITY (H2O = 1)	1.02000		
VAPOR PRESSURE (mm Hg.)	< 1	MELTING POINT	NI		
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI		
SOLUBILITY IN WATER: Insoluble at 77 ºF.					
APPEARANCE AND ODOR: Clear, Light Amber Viscou	s Liquid, Bland Odo	r			
OTHER INFORMATION: Viscosity Units > 100 pH = (1%) 2.5 to 3. Freezing Point = NI Dry Point = NI	5				
Density (Lb./Gal.) = 8.5					
DANGER Physical Hazards:- NI					
Generic Name:- Oil Well Treating Compound					
UN/NA Number:- DOT Not Regulated		-			
DOT Response Number:- N/App.					
DOT Proper Shipping Name:- DOT Not Regulated					
OT Hazard Class:- N/App.					
DOT Packing Group:- N/App.					
DOT/CERCLA RQ:- N/App.					
This product does not contain any chemicals Ammendments and Reauthorization Act of 1986.	subject to the repo	rting requirements of Section 313 of Title III o	of the Superfund		
SE	CTION IV - FIRE AND	EXPLOSION HAZARD DATA			
FLASH POINT: > 200 ºF. PMCC		FLAMMABLE LIMITS: LEL: N/App UEL: N/	′Арр		
EXTINGUISHING MEDIA:		I			

Dry Chemical CO2 Water Spray Water Fog

· <u>بر</u>

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)	
PECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see section V - decomposition products possible.	
Fight fire from safe distance / protected location.	
Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.	
May become combustible under extreme temperature conditions.	
Use water spray / fog for cooling.	
Notify authorities if liquid enters sewer / public waters.	
NUSUAL FIRE FIGHTING PROCEDURES: None.	
SECTION V - REACTIVITY DATA	

STABILITY: Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid.

Heat, sparks, open flames, and elevated temperatures.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous carbon monoxide and carbon dioxide from burning.

HAZARDOUS POLYMERIZATION:

Not expected to occur under normal conditions.

SECTION VI - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY: Inhalation:-

Although no appropriate human or animal health effects data are known to exist, this material is NOT expected to be an inhalation hazard.

Eye contact:- Primary Route

Although no appropriate human or animal health effects data are known to exist, this material IS expected to cause eye irritation.

Skin absorption:-

Although no appropriate human or animal health effects data are known to exist, this material is NOT expected to be absorbed through the skin.

Skin irritation:- Primary Route

Although no appropriate human or animal health effects data are known to exist, this material IS expected to be a skin irritant.

Ingestion:-

Although no appropriate human or animal health effects data are known to exist, this material IS expected to be an ingestion hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Irritant to Eyes. Irritant to Skin. Moderate Ingestion Hazard. No data on Inhalation Found. No data on Skin Absorption Found.

SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-.Irritation or redness of the skin may develop after exposure.

Eye Contact:-

Moderate eye irritation may develop on exposure.

Ingestion:-

Moderate irritation of the linings of the mouth, throat, and stomach may develop.

Inhalation:-

No data available.

MSDS NUMBER: 2117 PRODUCT NAME: INC 2117 Emulsion Breaker Intermediate

SECTION VI - HEALTH HAZARD DATA (Continued)

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: No Data Available.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:~

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Administer an aqueous slurry of activated charcoal followed by a cathartic such as magnesium citrate or sorbitol.

OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

OTHER PRECAUTIONS: Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive

SECTION VIII - CONTROL MEASURES (Continued)

pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS:

Store between 40º F. and 120º F.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or

expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

Page: 4

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•	- MATER	IAL SAFET	Y DATA	SHEET
	INC-2102	Proc	luct Code:	PAGE 1
	NFPA HAZARD RA 4 - Extre 3 - High 2 - Moder 1 - Sligh 0 - Insig	TING me ate Toxic t nificant	Fire ity 2 Special	> Reactivity
	HMIS HAZARD INDEX Hazardous 4 - Severe Materials 3 - Serious Identification 2 - Moderate System 1 - Slight O - Minimal	HMIS Health Flamma Reacti Person *See l	RATINGS bility vity al protection ast page for (1 2 0 G* Code Table.
	DIVISION AND LOCATIONSECTIO	n I		
(Division: INTERCHEM, INC. Location: P.O. BOX 13166 Od 3803 Mankins Odes Emergency Telephone Number: (Transportation Emergency: s CHEMICAL AND PHYSICAL PROPERTI	essa, TX 79768 sa, TX 79763 915) 550-7027 2 ame ESSECTION II	4 HOUR	
	<u>Chemical Name</u> : polymerized polyol <u>Formula</u> : no data available <u>Hazardous Decomposition Produc</u> carbon monoxide and carbon diox <u>Incompatibility (Keep away fro</u> strong oxidizers such as hydrog <u>Toxic and Hazardous Ingredient</u> <u>netroleum-solvent</u>	<u>ts</u> : ide from burning. <u>m)</u> : en peroxide, bromine, <u>s</u> :	, and chromic act	d. <u>CAS #</u> 64742-95-6
	isopropyl alcohol n-butanol naphthalene	· · · · · · · · · · · · · · · · · · ·	<1 8 4	67-63-0 71-36-3 91-20-3
	amounts of residual ethylene ox section for further details. <u>Form</u> : liquid <u>Appearance</u> : clear liquid <u>Specific Gravity (water=1)</u> : .9 <u>Boiling Point</u> : no data available <u>Melting Point</u> : <0°F	Odor: bland <u>Color</u> : amber		
	Solubility in Water (by weight Volatile (by weight %): 44-47 Evaporation Rate: not applicable Vapor Pressure (mm Hg at 20°C): Vapor Density (air=1): no data a	<u>%)</u> : gel @ 10% at 33 vailable	25°C	· · · · · · · · · · · · · · · · · · ·
	(Continued o	n next page)		

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MATERIAL SAFETY DATA ET SH F

INC-2102

Product Code:

PAGE 2

(Section II continued)

pH (5% in 75% IPA): 4.0 to 6.0 Stability: Product is stable under normal conditions Viscosity SUS at 100°F: greater than 100

FIRE AND EXPLOSION DATA---SECTION III

Special Fire Fighting Procedures:

Firefighters must be equipped to prevent breathing of vapors or products of combustion. Wear an approved self-contained breathing apparatus and protective clothing.--Unusual Fire and Explosion Hazards: none

Flashpoint: (Method Used) Pensky-Martens closed-cup 100°F

Flammable limits %: not applicable Extinguishing agents:

Drychemical or CO2 or Foam or Sand/Earth

HEALTH HAZARD DATA---SECTION IV

Permissible concentrations (air): aromatic petroleum solvent (supplier's recommendation): 100 ppm (563 mg/m3) for an 8 hour workday.

isopropyl alcohol: 400 ppm, 980 mg/m³ (OSHA/ACGIH); STEL 500 ppm, 1225 mg/m³ (OSHA/ACGIH)

n-buty] alcohol: C 50ppm, 150 mg/m³ (OSHA/ACGIH) naphthalene: 10 ppm, 50 mg/m³ (TWA); 15 ppm, 75 mg/m³ (STEL) (OSHA/ACGIH)

Chronic effects of overexposure:

isopropyl alcohol: irritation of eyes, nose, throat; headache, nausea, and dizziness.

Acute toxicological properties:

for stoddard solvent and heavy aromatic naphtha: inhalation-irritation of eyes, nose and throat, dizziness; skin contact-dermatitis; seves-irritation; ingestion-nausea, vomiting. Large amounts, if retained, lead to symptoms of central nervous system depression.

Emergency First Aid Procedures:

Immediately flush with large quantities of water for at least 15 Eyes: minutes and call a physician.

Skin Contact: Flush with large amounts of water for 15 minutes. Remove to fresh air. If breathing is difficult, give oxygen and Inhalation: call a physician If <u>Swallowed</u>: Call a physician.

(Continued on next page)

	TNO DIOD	F	AGE 3
۱	• INC-2102	Product_Code:	
	·		1.
Ń	د در ده د د د د د د د د د د د د د د د د		
	SPECIAL PROTECTION INFORMATION	ISECTION V	
	Ventilation Type Required (Loc	cal, mechanical, special):	
	mechanical Respiratory Protection (Specif	w type).	1945 1947
	Use NIOSH/MSHA-certified respir	rator with organic vapor cartridge if vap	or
	concentration exceeds permissit	ole exposure limit	
	rubber or plastic, solvent resi	istant	
	Eye Protection:		
•	chemical safety goggles		
	neoprene protective type apron.		
•	HANDLING OF SPILLS OR LEAKS	-SECTION VI	ه ها ها تو تم ند ه ·
	Altereseses eseseseseseses		
	<u>Procedures for Clean-Up</u> : Absorb with an inert material s	such as sand soil or vermiculite, swoon	up and
	· dispose of in accordance with f	ederal, state and local regulations.	up anu
: :	Waste Disposal:		. ,
<u> </u>	regulations.	til applicable rederal, state and local	•

in Antonio Material de la	Precautions to be taken in han	dling and storage:	· ·
	Store Detween 40% F and 120% F.		
	- Measacacacacacacacacacacacacacacacacacaca		
	TRANSPORTATION DATASECTION	VIII	;
	D.O.T.: Regulated		
	U.S. D.O.T. Proper Shipping Na	<u>me</u> : Combustible liquid, n.o.s. (Petrole	um solve
	Butanol)		•
	U.S. D.O.T. Hazard Class: Lombu T.D. Number: NA 1993 PG III	Istible liquid	· ·
	Label(s) Required: none		
	Reportable Quantity: 100 lb for	naphthalene	•
	<u>Freight Classification</u> : Uli Wei Special Transportation Notes:	I Treating compound	
	Unregulated by DOT when shipped	in containers of less than 118.9 gallon;	s.
and in the s		- · ·	
	ENVIRONMENTAL/SAFETY REGULATION	seessesheessestestestestestestestestestestestest	
digen in the			-=====
	Section 313 (Title III Superfue	nd Amendment and Reauthorization A	<u>.ct):</u>
	Inis product contains the follow	nng chemical(s) subject to the reporting	J

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						na analy descent for the second		
	MATERIA	L SAFE	TY DÀTA SHE	ET				
MSOS NUMBER: 2122 PART NUMBER: INC 2122 PRODUCT NAME: INC 2122 Emulsion Breaker Inter CAS NUMBER: – –O CHEMICAL NAME: Polyoxyalkylated (vic) diol, F	mediate henol derivativ	e	•		:			
	i de la constante de la constan	SECTI	ON I					
MANUFACTURER: / VENDOR: InterChem, Inc.							<u></u>	 /\
ADDRESS: 3803 Mankins Odessa, TX 79763			HMIS RAI	NGS:	DEA	HEALTH: 2 FIRE: 3	н	EALTH / \ F 2 / \ / \
EMERGENCY TELEPHONE NUMBER: (915)550-7027				PEF	SONAL PRO	TECTION:		
INFORMATION TELEPHONE NUMBER: (915)550-7027							SPEC	. HAZ.\ / R
DATE PREPARED: 01/01/94			-					
SECTIO	I II - HAZARDOUS	INGRE	DIENTS/IDE	TITY	INFORMATI	ON 1		
			SUB-	SARA			OTHER LIMI	TS
CAS NUMBER HAZARDOUS COMPONENT		NTP]	ARC PART/Z	313 	OSHA PEL	ACGIH TLV	RECOMMENDE	
7664-93-9 Sulfuric acid 67-63-0 Isopropanol		? ?	???	Y ?	1 ppm 400 ppm	1 ppm 400 ppm		< 1 15-18
91-20-3 Naphthalene		?	??	Y	10 ppm	15 ppm		< 1 Traces
	70 ¹ - 111 - 11 - 11 - 11 - 11 - 11 - 11	? 	{ {	:		NI		
	TION III - PHYS	SICAL/(CONCLUSION			1)		0.91000
	App 180º F					NT		
			FVAPORATION RATE (Butyl Acetate = 1)			1.3		
SOLUBILITY IN WATER: Dispersible at 602 F							1	
APPEARANCE AND ODOR: Amber Liquid. Alcohol O	lor						<u> </u>	
OTHER INFORMATION: Viscosity Units = App. 78 pH = 7.0 - 7.5 Freezing Point = NI Dry Point = NI	1997 - Constantino de Constantino de Constantino de Constantino de Constantino de Constantino de Constantino d							
Density (Lb./Gal.) = 7.5								
DANGER Physical Hazards:- Flammable Liquid								
Generic Name:- Oil Well Treating Compound								
UN/NA Number:- UN 1993							-	
DOT Response Number:- 27					,			
DOT Proper Shipping Name:- Flammable Liquid, (Contains Isopropanol)	n.o.s.							
DOT Hazard Class:- 3								
DOT Packing Group:- II								
DOT/CERCLA RQ:- 100 Lb. (Naphthalene)								

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Page: 2

MSDS [~] NUMBER: 2122 PRODUCT NAME: INC 2122 Emulsion Breaker Interm	Page: 2
SECTION	IV - FIRE AND EXPLOSION HAZARD DATA (Continued)
EXTINGUISHING MEDIA: Dry Chemical CO2 Water Spray Water Fog "Alcohol" Foam Sand/Earth	
SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protec	ction - see section V - decomposition products possible.
Fight fire from safe distance / protected lo	ocation.
Heat-may build pressure / rupture closed cor	ntainers, spreading fire, increasing risk of burns / injuries.
Use water spray / fog for cooling.	·
Notify authorities if liquid enters sewer /	public waters.
UNUSUAL FIRE FIGHTING PROCEDURES: Releases vapors at normal ambient temperatur explode if confined. Flammable vapors may be back to vapor source. Diluting with water may Containers exposed to intense heat from fire container rupture.	res. When mixed with air and exposed to ignition source, vapors can burn in open or heavier than air. May travel long distances along the ground before igniting/flashing y not suffice to raise flash point above ambient temperatures. es should be cooled with water to prevent vapor pressure buildup which could result in
	SECTION V - REACTIVITY DATA
STABILITY: Stable under normal conditions.	
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Po Strong Acids. Strong Alkalies. Heat, sparks, open flames, and elevated tem	eroxide, Bromine, and Chromic Acid. peratures.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous	carbon monoxide, carbon dioxide, and oxides and/or compounds of sulfur.
HAZARDOUS POLYMERIZATION: Not expected to occur.	
	SECTION VI - HEALTH HAZARD DATA
ROUTE(S) OF ENTRY: Inhalation:- Primary Route Although no appropriate human or animal hea hazard.	lth effects data are known to exist, this material is expected to be an inhalation -
Eye contact:- Primary Route Although no appropriate human or animal hea	Ith effects data are known to exist, this material is expected to cause eye irritation.
Skin absorption:- No appropriate human or animal health effec	ts data are known to exist.
Skin irritation:- Although no appropriate human or animal hea	alth effects data are known to exist, this material is expected to be a skin irritant.
Ingestion:- Although no appropriate human or animal hea hazard.	Ilth effects data are known to exist, this material is expected to be an ingestion
HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Irritant to Eyes. Irritant to Skin. Moderate Ingestion Hazard. Mild Inhalation Hazard No data on Skin Absorption Found.	
SIGNS AND SYMPTOMS OF EXPOSURE: Skin Contact:- Irritation or redness of the skin may devel	op after exposure.

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SECTION VI - HEALTH HAZARD DATA (Continued)

Eye Contact:-

Moderate eye irritation may develop on exposure.

Ingestion:-

Moderate irritation and burning of the linings of the mouth, throat, and stomach may develop, causing abdominal pain and vomiting. Sometimes bloody vomitus. Ingestion may cause central nervous system depression, low blood pressure, rapid heartbeat and liver damage.

Inhalation:-

Coughing and shortness of breath may result. More severe symptoms are also possible. May cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system depression.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisting disorders may be aggravated by exposure to this product.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If victim is completely conscious and alert, give 2 glasses of water, and induce vomiting by administering 2 tablespoons of Syrup of Ipecac, or by touching finger to back of victim's throat. Obtain emergency medical attention. Gastric lavage recommended.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Induce vomiting. Gastric lavage recommended.

OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel. Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

OTHER PRECAUTIONS:

Wash Thoroughly after handling.

Do not get it eyes, on skin, or clothing.

Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use.

_Empty_container_may contain hazardous residues.

Page: 3
PRODUCT NAME: INC 2122 Emulsion Breaker Intermediate

SECTION WIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

---Use good personal--hygiene-practices. Wash hands before eating, drinking, smoking or using_toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS: NI

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

	MATERIAL SAF	ETY DATA SHEET			
MSDS NUMBER: 2133 PART NUMBER: INC 2133 PRODUCT NAME: INC 2133 Emulsion Breaker Interma CAS NUMBER:0 CHEMICAL NAME: OxyAlkylated Phenolic Resin	ediate	YY CAPTA PARAMATERIA PARAMATINI YA TATA MATAKA YA MATAKA YA TATA MATAKA YA MATAKA YA MATAKA YA MATAKA YA MATAK			
	SECT	ION I			
MANUFACTURER: / VENDOR: InterChem, Inc.	ayaaa yaa dhahaha dh ayaan <mark>aha ahaa</mark>an ahaa yaa aha				
ADDRESS: 3803 Mankins Odessa, TX 79763		HMIS RATINGS: HEALTH: 1 FIRE: 2 BEACTIVITY: 0	HEALTH / \ FIRE 1 / \ 2		
EMERGENCY TELEPHONE NUMBER: (915)550-7027		PERSONAL PROTECTION:			
INFORMATION TELEPHONE NUMBER: (915)550-7027]	SPEC. HAZ.\ / REACT.		
DATE PREPARED: 03/01/94					
SECTION	II - HAZARDOUS INGRI	EDIENTS/IDENTITY INFORMATION			
CAS NUMBER HAZARDOUS COMPONENT	NTP	SUB- SARA OTHER I IARC PART/Z 313 OSHA PEL ACGIH TLV RECOMM	IMITS ENDED PERCENT		
64742-95-6 Petroleum Solvent 91-20-3 Naphthalene	?	??????????????????????????????????????	29-31 5		
SECT	ION III - PHYSICAL/	CHEMICAL CHARACTERISTICS			
BOILING POINT	NI	SPECIFIC GRAVITY (H2O = 1)	0.96900		
VAPOR PRESSURE (mm Hg.)	NI	MELTING POINT	NI		
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	N/App.		
SOLUBILITY IN WATER: Insoluble at 60° F.					
APPEARANCE AND ODOR: Dark Amber Liquid, Solven	t Odor				
OTHER INFORMATION: Viscosity Units > 100 pH = 10 - 12 Freezing Point = NI Dry Point = NI					
Density (Lb./Gal.) = 8.072					
DANGER Physical Hazards: Flammable Liquid					
Generic Name:- OxyAlkylated Phenolic Resin		<u>.</u>			
UN/NA Number:- NA 1993					
DOT Response Number:- 27					
DOT Proper Shipping Name:- Flammable Liquid, n (Petroleum Solvent)	.0.5.				
DOT Házard Class:- 3					
DOT Packing Group:- III					
DOT/CERCLA RQ:- 100 Lbs. (Naphthalene)					
This product contains chemicals which are su Amendments and Reauthorization Act of 1986. Th	bject to the report he corresponding CA	ing requirements of Section 313 of Title III o S numbers and percent by weight are listed abo	of the Superfund		
SEC	CTION IV - FIRE AND	EXPLOSION HAZARD DATA	· · · · · · · · · · · · · · · · · · ·		
FLASH POINT: 142 º F.	<u> </u>	FLAMMABLE LIMITS: LEL: NI UEL:	NI		
EXTINGUISHING MEDIA:			······································		

Dry <u>Ch</u>emical CO2 Water Spray



Page: 2

MSDS NUMBER: 2133

PRODUCT NAME: INC 2133 Emulsion Breaker Intermediate

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

Water Fog

SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see section V - decomposition products possible.

Fight fire from safe distance / protected location.

_Heat_may_build_pressure_/_rupture_closed containers, spreading fire, increasing risk of burns / injuries.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

UNUSUAL FIRE FIGHTING PROCEDURES:

None.

SECTION V - REACTIVITY DATA

STABILITY:

Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid.

Heat, sparks, open flames, and elevated temperatures.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

... Incomplete combustion may release poisonous carbon monoxide, carbon dioxide, and oxides and/or compounds of nitrogen.

HAZARDOUS POLYMERIZATION:

Not expected to occur.

SECTION VI - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY: Inhalation:~

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Eye contact: - Primary Route

Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation.

Skin absorption:-

Although no appropriate human or animal health effects data are known to exist, this product is expected to absorb through the skin.

Skin irritation:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant.

Ingestion:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an ingestion. hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Irritant to Eyes. Irritant to Skin.	
Respiratory Irritant.	
SIGNS AND SYMPTOMS OF EXPOSURE:	
Irritation or redness of the skin may develop after exposure.	

Eye Contact:-

Moderate eye irritation may develop on exposure.

Indestion:-

Nausea, vomiting. Large amounts, if retained, lead to symptoms of central nervous system depression.

Inhalation:-

1

Dizziness, coughing and shortness of breath may result. More severe symptoms are also possible.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

MSDS-NUMBER:- 2133 PRODUCT NAME: INC 2133 Emulsion Breaker Intermediate

SECTION VI - HEALTH HAZARD DATA (Continued)

EMERGENCY AND FIRST AID PROCEDURES: Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Eve Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended.

OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD: Comply with Federal / State / Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel. Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL-PROTECTIVE- EQUIPMENT:-

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-



SECTION VIII - CONTROL MEASURES (Continued)

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS: NI

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss; damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

	Tone Water - Histor Waterwaterwa	17/11 - 1.9-11 - 2.5-1 - 1-1-10-1 - 1-1-10-1	1			
a na mangangka bana.	MATERIAL SAF	ETY DATA SHEET		· · · · · · · · · · · · · · · · · · ·		
MSDS:NUMBER: 2143 PART®NUMBER: INC 2143 PRODUCT®NAME: INC 2143 Emulsion Breaker Interm CAS®NUMBER:0 CHEMICAL®NAME: OsyAlkylated Phenolic Resin	ediate					
	SECT	10N I		<u>, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		
MANUFACTURER:_/_VENDOR: InterChem, Inc.	***					
ADDRESS: 3803 Mankins Odessa, TX 79763		- HMIS RATINGS: // HEALTH: 1 HEALTH / Y FIRE: 2 1 /				
EMERGENCY TELEPHONE NUMBER: (915)550-7027		PE	RSONAL PROTECTION:		/	
INFORMATION TELEPHONE NUMBER: (915)550-7027				SPEC. HAZ.\ / R	REACT.	
DATE PREPARED: 03/01/94			•	V		
SECTION	II — HAZARDOUS INGR	EDIENTS/IDENTITY	INFORMATION			
CAS NUMBER HAZARDOUS COMPONENT	NTP	SUB- SARA IARC PART/Z 313	OSHA PEL ACGIH TLV	OTHER LIMITS RECOMMENDED PERCENT		
64742-95-6 Petroleum Solvent 91-20-3 Naphthalene 75-56-9 Propylene oxide 75-21-8 Ethylene oxide	? ? ? ?	??N ??Y Y?? Y?N	100 ррт 100 ррт 10 ррт. 10 ррт. 20 ррт. 20 ррт. 1 ррт. 5 ррт.	10-20 % 2-3 % Traces Traces		
SECT	ION III - PHYSICAL/	CHEMICAL CHARACT	ERISTICS			
BOILING POINT	NI	SPECIFIC GRAVI	TY (H20 = 1)	1.00000		
VAPOR [§] PRESSURE (mm Hg.)	NI	MELTING POINT		6 º F.		
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RA	TE (Butyl Acetate = 1)	NI	· .	
SOLUBILITY IN WATER: Dispersible at 77 º F.			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
APPEARANCE AND ODOR: Dark Amber Viscous Liquid	, Solvent Odor.					
OTHER INFORMATION: Viscosity Units > 100 pH = (5%) 10 - 12 Freezing Point = NI Dry Point = NI Density (Lb./Gal.) = 8.33						
DANGER Physical Hazards:- Flammable Liquid			•			
Seneric Name:- UXYALKYLATEG Phenolic Kesin			• .			
UNY MARKANANANANANANANANANANANANANANANANANANA				· ·· · ·		
DOT Proper Shipping Name:- Flammable Liquid, n. (Contains Petroleum Solvent)	.o.s.			 		
DOTAHazard Class:- 3				:. · · ·		
Congression - 111				•		
DOT/CERCLA RQ:- 100 Lbs. (Naphthalene)						
Mi This product contains chemicals which are sub Amendments and Reauthorization Act of 1986. Th	oject to the reporti ne corresponding CAS	ng requi rements numbers and pe	of Section 313 of Tit rcent by weight are li	le III of the Superfund sted above.		
SEC.	TION IV - FIRE AND	EXPLOSION HAZAR	D DATA	······································		

FLASH POINT: 147 PF. (PMCC)

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UEL: N/App.

LEL: N/App.

FLAMMABLE LIMITS:

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SDS.NUMBER: 2143 RODUCTINAME: NINC 2143 Emulsion, Breaker Intermediate			Page:/2/sec.
SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Contin	nued)	n allen allen	
XTINGUISHING NEDIAT DAY Chemical CO2 Waton Spray Waton Foo	· · · ·		
PECIALITIE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see section V - decomposition produc Fight fire from safe distance // protected location.	ts possi	ble.	
Use vaterisprey: //ifog for cooling. Notify/authonities if liquid enters sewer / public waters.			
NUSUAL FIREFEIGHTING PROCEDURES:	· · · · · · · · · · · ·		
SECTION V - REACTIVITY DATA		19.77 199	
TABILITY: The second se	····		
NCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Strong Acids. Strong Alkalies. Heat geparks, open flames, and elevated temperatures.			
IAZARDOUSIDECOMPOSITION OR BYPRODUCTS:	rning.	- <u></u>	
AZARDOUSIPOLYMERIZATION:		·	
SECTION VI - HEALTH HAZARD DATA	<u></u>		
ROUTE(S) OF ENTRY: (nhalation: Primary Route Although no appropriate human or animal health effects data are known to exist, this manazard; Eye contact:	aterial aterial	is expected to is expected to	be an inhalation cause eye irritation,
Skin absorption:- Notappropriate human or animal health effects data are known to exist. Skin inritation:- Primary Route Although notappropriate human or animal health effects data are known to exist, this ma Ingestion:- Although notappropriate human or animal health effects data are known to exist, this ma hazard.	aterial i aterial i	is expected to	be a skin irritant. be an ingestion
HEALTHIHAIARDS®(ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) (Innitant to Eyes. Severe Ingestion Hazard. Severe Ingestion Hazard. Vapors Infinhaled, will irritate the nasal mucosae. No.data Ion Skin Absorption Found.			
SIGNS AND SYMPTOMS OF EXPOSURE: Skin Contact: Skin Contact: Firstation for redness of the skin may develop after exposure (dermatitis) Eye Contact:			
Severe ave irritation may develop on exposure.	alon alo	ong with nause	a, vomiting.
reserve example the south of the trainings of the wouth, throat, and stowach way deve			

، تقد ک MSDS NUMBER: 2143

PRODUCT NAME: INC 2143 Emulsion Breaker Intermediate

SECTION-VI - HEALTH HAZARD-DATA (Continued) --

Inhalation:-

Irritation of the eyes, nose and throat, dizziness, along with coughing and shortness of breath may result. More severe symptoms are also possible.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Prolonged This material or its emissions may affect the central nervous system and/or aggravate pre-existing disorders. observation may be indicated.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:~

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

Skin Contact:~

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Indestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended.

OTHER HEALTH WARNINGS:

--The-toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Store drums with bungs in up position.

OTHER PRECAUTIONS:

-Wash-Thoroughly after handling.

Do not get it eyes, on skin, or clothing.

Do not breathe dust, vapor, mist, or gas.

Keep Container closed when not in use.

Empty container may contain hazardous residues.



SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to apraying liquid or airborne particles. Contact lenses must not be worn.

Skin_Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS: NI

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

""This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

	MATERIAL SAFE	TY DATA SHEET.	
MSDS NUMBER: 2160 PART NUMBER: INC 2160 PRODUCT NAME: INC 2160 Emulsion Breaker Interm CAS NUMBER: – –O CHEMICAL NAME: PolyOxyAlkylated Glycol) ediate		
Yan da da waxaa waxaa ahaa da da ahaa ahaa ahaa ahaa ahaa	SECTI	ON I	
MANUFACTURER: / VENDOR: InterChem, Inc.			
ADDRESS: 3803 Mankins Odessa, TX 79763 EMERGENCY TELEPHONE NUMBER: (915)550-7027		HMIS RATINGS: HEALTH: 1 FIRE: 1	/\ HEALTH / \ FIRE 1 / \ 1
		PERSONAL PROTECTION:	
INFORMATION TELEPHONE NUMBER: (915)550-7027		-	SPEC. HAZ.\ / REACT
DATE PREPARED: 03/01/94	· · ·	-	V
SECTION	II - HAZARDOUS INGRE	DIENTS/IDENTITY INFORMATION	
CAS NUMBER HAZARDOUS COMPONENT	NTP]	SUB- SARA OTHE ARC PART/Z 313 OSHA PEL ACGIH TLV RECO	ER LIMITS DMMENDED PERCENT
75-21-8 Ethylene oxide	?	? ? ? NI NI	Traces
SECT	ION III - PHYSICAL/C	HEMICAL CHARACTERISTICS	
BOILING POINT	NI	SPECIFIC GRAVITY (H2O = 1)	1.06000
VAPOR PRESSURE (mm Hg.)	< 1.0	MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI
SOLUBILITY IN WATER: Insoluble at 70 ^o F.			
APPEARANCE AND ODOR: Cream Colored Hazy liquid	, bland odor		
OTHER INFORMATION: Viscosity Units > 100 pH = 11.0 to 13.0 Freezing Point = NI Dry Point = NI	······································	· · · · · ·	
Density (Lb./Gal.) = 9.00			
DANGER Physical Hazards:- May become combustible at very high temper	atures.		
Generic Name:- Cleaning Compound			
UN/NA Number:- Not Regulated			
DOT Response Number:- N/App.			
DOT Proper Shipping Name:~ DOT Not Regulated			
DOT Hazard Class:- N/App.			
DOT Packing Group:- N/App.			
DOT/CERCLA RQ:- N/App.			
This product does not contain any chemicals Ammendments and Reauthorization Act of 1986.	subject to the repor	ting requirements of Section 313 of Title	III of the Superfund
SE	CTION IV - FIRE AND	EXPLOSION HAZARD DATA	99
FLASH POINT: > 200 ₽F.	**************************************	FLAMMABLE LIMITS: LEL: NI UE	EL: NI

EXTINGUISHING MEDIA:
Dry Chemical
CO2
Water Spray
Water Fog

MSDS NUMBER: 2160 PRODUCT NAME: INC 2160 Emulsion Breaker Intermediate	Page: 2
SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)	
SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see section V - decomposition products possible.	gen er (1997), and an an an
Fight fire from safe distance / protected location.	
Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.	
May become combustible upon exposure to very high temperatures.	
Use water spray / fog for cooling.	
Notify authorities if liquid enters sewer / public waters.	
UNUSUAL FIRE FIGHTING PROCEDURES: None.	
SECTION V - REACTIVITY DATA	
STABILITY: Stable under normal conditions.	
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Heat, sparks, open flames, and elevated temperatures.	
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxide and oxides and/or compounds of nitrogen.	
HAZARDOUS POLYMERIZATION: Not expected to occur.	
SECTION VI - HEALTH HAZARD DATA	• · =
ROUTE(S) OF ENTRY: Inhalation:- Although no appropriate human or animal health effects data are known to exist, this material is not expected to be hazard.	an inhalation
Eye contact:- Primary Route Although no appropriate human or animal health effects data are known to exist, this material is not expected to cau irritation.	se eye
<pre>Skin absorption:- Although no appropriate human or animal health effects data are known to exist, this material is not expected to be through the skin.</pre>	absorbed
<pre>Skin irritation:- Although no appropriate human or animal health effects data are known to exist, this material is not expected to be irritant.</pre>	a skin
Ingestion:- Although no appropriate human or animal health effects data are known to exist, this material is not expected to be hazard.	an ingestion
HEALTH HAZARDS (ACUTE AND CHRONIC): Possible eye irritant. Possible skin irritant.	
SIGNS AND SYMPTOMS OF EXPOSURE: NI	· · ·
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI	·
EMERGENCY AND FIRST AID PROCEDURES: Inhalation:- If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. emergency medical attention. Prompt action is essential.	Obtain
Eye Contact:- In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtai medical attention.	n emergency
Skin Contact:- Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.	for 15

SECTION VI - HEALTH HAZARD DATA (Continued)

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Administer an aqueous slurry of activated charcoal followed by a cathartic such as magnesium citrate or sorbitol.

OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

\$TEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

MSDS NUMBER: 2160 PRODUCT NAME: INC 2160 Emulsion Breaker Intermediate

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS:

Ethylene Oxide may accumulate in the head space of drum and bulk containers. However, the concentration of ethylene oxide in the head space should not cause the OSHA 0.5 ppm. action level for ethylene oxide exposure to be exceeded. Ethylene Oxide is listed as a potential carcinogen by OSHA, NTP, IARC. If the product is handled as recommended in this MSDS, the trace amounts of ethylene oxide are not expected to result in acute or chronic hazards.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

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expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

	MATERIAL SAF	ETY ⊉ATA SHEET	<u>ony mananakan kilika ani nyi punana panja prana ana ana a</u>	
MSDS NUMBER: 2141 PART NUMBER: INC 2141 PRODUCT NAME: INC 2141 Emulsion Breaker Inte CAS NUMBER: – –0 CHEMICAL NAME: OsyAlkylated Phenolic Resin	, rmediate		<u>ar 1967 (1979) - 71 - 177 - 178 - 179</u>	
	SECT	ION I		
MANUFACTURER: / VENDOR: InterChem, Inc.				
ADDRESS: 3803 Mankins Odessa, TX 79763		HMIS RATINGS: // HEALTH: 1 HEALTH / \ F FIRE: 2 1 / \		
MERGENCY TELEPHONE NUMBER: (915)550-7027		PERSONAL PROTECTION:		
INFORMATION TELEPHONE NUMBER: (915)550-7027		SPI	EC. HAZ.\ / REACT.	
DATE PREPARED: 03/01/94		,	\/	
SECTIO	N II - HAZARDOUS INGR	FDIENTS/IDENTITY INFORMATION	<u></u>	
CAS NUMBER HAZARDOUS COMPONENT	NTP	SUB- SARA OTHER LI. IARC PART/Z 313 OSHA PEL ACGIH TLV RECOMMEN	MITS DED PERCENT	
64742-95-6 Petroleum Solvent 91-20-3 Naphthalene 75-56-9 Propylene oxide 	???????????????????????????????????????	? ? N 100 ppm 100 ppm ? ? Y 10 ppm. 10 ppm. Y ? ? 20 ppm. 20 ppm. Y ? N 1 ppm. 5 ppm.	10-20 % 2-5 % Traces Traces	
SE	CTION III - PHYSICAL/	CHEMICAL CHARACTERISTICS		
BOILING POINT	NI	SPECIFIC GRAVITY (H2O = 1)	1.00000	
VAPOR PRESSURE (mm Hg.)	NI	MELTING POINT	6 º F.	
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI	
SOLUBILITY IN WATER: Dispersible at 77 º F.				
APPEARANCE AND ODOR: Dark Amber Viscous Liqu	id, Solvent Odor.			
OTHER INFORMATION: Viscosity Units > 100 pH = (5%) 10 - 12 Freezing Point = NI Dry Point = NI				
Density (Lb./Gal.) = 8.33				
DANGER Physical Hazards:- Flammable Liquid				
Generic Name:- OxyAlkylated Phenolic Resin				
UN/NA Number:- NA 1993				
DOT Response Number:- 27				
DOT Proper Shipping Name:- Flammable Liquid, (Contains Petroleum Solvent)	n.o.s.			
DOT Hazard Class:- 3				
DOT Packing Group:- III				
DOT/CERCLA RQ:- 100 Lbs. (Naphthalene)				
This product contains chemicals which are Amendments and Reauthorization Act of 1986.	subject to the report The corresponding CA	ting requirements of Section 313 of Title III of AS numbers and percent by weight are listed abov	the Superfund	
	SECTION IV - FIRE AND	D EXPLOSION HAZARD DATA		

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FLASH POINT: 145 ºF. (PMCC)	FLAMMABLE LIMITS:	LEL: N/App.	UEL: N/App.

MSDS NUMBER: 2141 PRODUCT NAME: INC 2141 Emulsion Breaker Intermediate

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Page: 2

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)	
EXTINGUISHING MEDIA: Dry Chemical CO2 Water Spray Water Fog	
SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see section V - decomposition products possible.	
Fight fire from safe distance / protected location.	
Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuri	es.
Use water spray / fog for cooling.	
Notify authorities if liquid enters sewer / public waters.	
UNUSUAL FIRE FIGHTING PROCEDURES:	
SECTION V - REACTIVITY DATA	
STABILITY: Stable under normal conditions.	
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Strong Acids. Strong Alkalies.	
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxide and carbon dioxide from burning.	· · · · · · · · · · · · · · · · · · ·
HAZARDOUS POLYMERIZATION: Not expected to occur.	
SECTION VI - HEALTH HAZARD DATA	
ROUTE(S) OF ENTRY: Inhalation:- Primary Route Although no appropriate human or animal health effects data are known to exist, this material is expec hazard.	cted to be an inhalation
Eye contact:- Primary Route Although no appropriate human or animal health effects data are known to exist, this material is expec	cted to cause eye irritation.
Skin absorption:- No appropriate human or animal health effects data are known to exist.	
Skin irritation:- Primary Route Although no appropriate human or animal health effects data are known to exist, this material is expec	cted to be a skin irritant.
Ingestion:- Although-no-appropriate-human-or-animal-health-effects data are known to exist,-this-materialis-expec hazard.	cted to be an ingestion
HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Irritant to Eyes. Irritant to Skin. Severe Ingestion Hazard. Vapors, if inhaled, will irritate the nasal mucosae. No data on Skin Absorption Found.	•
SIGNS AND SYMPTOMS OF EXPOSURE: Skin Contact:- Irritation or redness of the skin may develop after exposure (dermatitis)	
Eye Contact:- Severe eye irritation may develop on exposure.	
Ingestion:- Severe irritation and burning of the linings of the mouth, throat, and stomach may develop, along with	h nausea, vomiting.

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SECTION VI - HEALTH HAZARD DATA (Continued)

Inhalation:-

Irritation of the eyes, nose and throat, dizziness, along with coughing and shortness of breath may result. More severe symptoms are also possible.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

This material or its emissions may affect the central nervous system and/or aggravate pre-existing disorders. Prolonged observation may be indicated.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Indestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended.

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OTHER HEALTH WARNINGS

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues. SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT: Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS: NI

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or express activity out of an approximate the bandling out of the product.

expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

	MATER	IAL SAFE	TY DATA SHEET	 Г			
MSDS NUMBER: 2155 PART NUMBER: INC 2155 PRODUCT NAME: INC 2155 Emulsion Breaker CAS NUMBER: – –O CHEMICAL NAME: Proprietary	Intermediate		<u></u>				
		SECTI	ON I		<u> </u>		. <u></u>
MANUFACTURER: / VENDOR: InterChem, Inc.					<u></u>		
ADDRESS: 3803 Mankins Odessa, TX 79763		- HMIS RATIN	GS:	HEALTH: 2 FIRE: 4	H	IEALTH / \ FIRE 2 / \ 4	
EMERGENCY TELEPHONE NUMBER: (915)550-702	7		1	PERSONAL	PROTECTION:		
INFORMATION TELEPHONE NUMBER: (915)550-7	027		1			SPEC	. HAZ.\ / REACT
DATE PREPARED: 03/01/94					. ,		
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				TTY INFOR			
5E		JUS INGRI	DIENTS/IDENT				
CAS NUMBER HAZARDOUS COMPONENT		NTP	SUB- SUB- S IARC PART/Z 3	SARA S13 OSHA	PEL ACGIH TL	RECOMMEND	ED PERCENT
67-63-0 2-Butanol 64741-68-0 Heavy Aromatic Xylene Bottom	s	? ?	?? Y?	? 400 Y 100	ррт. 400 ррт. ррт. 100 ррт.	•	20-30 % 5-12 %
	SECTION III - PH	HYSICAL/	CHEMICAL CHAP	RACTERISTI	ICS		·
BOILING POINT	App. 180 I	F	SPECIFIC GRAVITY (H2O = 1)				0.99000
VAPOR PRESSURE (mm Hg.)	57.1		MELTING POINT			NI	
VAPOR DENSITY (AIR = 1)	App. 1.0		EVAPORATION RATE (Butyl Acetate = 1)		1)	Apprec.	
SOLUBILITY IN WATER: Appreciable at 77 9	?F.						
APPEARANCE AND ODOR: Dark Amber Liquid,	Ammonia Odor						<u></u>
OTHER INFORMATION: Viscosity Units = NI pH = App. 9.0 Freezing Point = NI Dry Point = NI	L						
Density (Lb./Gal.) = 8.25							
DANGER Physical Hazards:- Flammable Liquid							
Generic Name:- Oil Well Treating Compour	nd						
UN/NA Number:- UN 1993							
DOT-Response-Number;- 27							
DOT Proper Shipping Name:- Flammable Li (Contains Isopropanol, Petroleum Solven	quid, n.o.s. t)						
DOT Hazard Class:- 3							
DOT Packing Group:- II							
DOT/CERCLA RG:- None	• •						
This product contains chemicals which Amendments and Reauthorization Act of 1	are subject to th 986. The correspo	ne report	ting requirem AS numbers ar	ments of S ad percent	Section 313 of t by weight are	Title III of listed abov	the Superfund e.
	SECTION IV -	FIRE AN	D EXPLOSION H	AZARD DAT	ĨA		
FLASH POINT: 71 ºF.			FLAMMABLE	LIMITS:	LEL: App. 2.0	UEL: A	pp. 16.8
EXTINGUISHING MEDIA:							

EXTINGUISHING MEDI Dry Chemical CO2 Water Spray

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MSDS NUMBER: 2155 PRODUCT NAME: INC 2155 Emulsion Breaker Intermediate

# SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

# Water Fog

SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see section V - decomposition products possible.

Fight fire from safe distance / protected location.

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

### UNUSUAL FIRE FIGHTING PROCEDURES:

Releases vapors at normal ambient temperatures. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Flammable vapors may be heavier than air. May travel long distances along the ground before igniting/flashing back to vapor source. Diluting with water may not suffice to raise flash point above ambient temperatures.

SECTION V - REACTIVITY DATA

## STABILITY:

Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid.

Strong Acids. Strong Alkalies.

Heat, sparks, open flames, and elevated temperatures.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous carbon monoxide and oxides and/or compounds of nitrogen and sulfur.

### HAZARDOUS POLYMERIZATION:

Not expected to occur under normal conditions.

SECTION VI - HEALTH HAZARD DATA

# ROUTE(S) OF ENTRY:

Inhalation: - Primary Route

Although no appropriate human or animal health effects data are known to exist, this material IS expected to be an inhalation hazard.

Eye contact:- Primary Route

Although no appropriate human or animal health effects data are known to exist, this material IS expected to cause eye irritation.

Skin absorption: - Primary Route

Although no appropriate human or animal health effects data are known to exist, this material IS expected to be absorbed through the skin.

Skin irritation:- Primary Route

Although no appropriate human or animal health effects data are known to exist, this material IS expected to be a skin irritant.

Ingestion:-

Although no appropriate human or animal health effects data are known to exist, this material IS expected to be a severe ingestion hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Corrosive to Eyes. Corrosive to Skin. Severe Ingestion Hazard. Moderate Inhalation Hazard. May be absorbed through the skin.

SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-

Irritation or redness of the skin may develop after exposure.

Eye Contact:-

Severe eye irritation may develop on exposure.

Ingestion:~

Severe irritation and burning of the linings of the mouth, throat, and stomach may develop.

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# SECTION VI - HEALTH HAZARD DATA (Continued)

### Inhalation:-

# Coughing, shortness of breath, dizziness, and intoxication may result. More severe symptoms are also possible.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

This material or its emissions may affect pregnancy and/or fetal development.

# EMERGENCY AND FIRST AID PROCEDURES:

### Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

### Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

### Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

### Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

# Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended.

### OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

### SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

### WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

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Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground Lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

OTHER PRECAUTIONS: Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS: Either local exhaust or general room ventilation is usually required.

SECTION VIII - CONTROL MEASURES (Continued)

# PERSONAL PROTECTIVE EQUIPMENT: Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

### Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

# Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

### Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

# SECTION IX - ADDITIONAL INFORMATION

# ADDITIONAL MANUFACTURER WARNINGS: NI

# OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

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	MATERIAL SAFE	ETY DATA SHEET		
MSDS NUMBER: 2182 PART NUMBER: INC 2182 PRODUCT NAME: INC 2182 Emulsion Breaker Interm CAS NUMBER: – –0 CHEMICAL NAME: Polymerized Polyol	ediate			
	SECT	ION I	ar a na shi da shi an shi Andon na na Annon an Layanna na shi anno a fa shi an sa shi a	
MANUFACTURER: / VENDOR: InterChem, Inc.			ni ili <u>nen e</u> tterantek interne falktranitz araan sorte ett ^a torit	/\
ADDRESS: 3803 Mankins Odessa, TX 79763		- HMIS RATINGS:	HEALTH / \ FIRE	
EMERGENCY TELEPHONE NUMBER: (915)550-7027		PERSON		
INFORMATION TELEPHONE NUMBER: (915)550-7027			SPEC. HAZ.\ / REACT.	
DATE PREPARED: 03/01/94				· · · · ·
	<b></b>			
SECTION	II - HAZARDOUS INGR	EDIENTS/IDENTITY INF		
CAS NUMBER HAZARDOUS COMPONENT	NTP	SUB~ SARA IARC PART/Z 313 OSH	IA PEL ACGIH TLV RE	COMMENDED PERCENT
64742-95-6 Petroleum Solvent 71-36-3 N-BUTANOL 75-56-9 Propylene oxide	? ? ?	???? ??? ??? ? ? NI	Ю ррт NI ) ррт. 150 NI	5-8 7-10 Traces
SECT	ION III - PHYSICAL/	CHEMICAL CHARACTERIS	TICS	<u>, , , , , , , , , , , , , , , , , , , </u>
BOILING POINT	NI	SPECIFIC GRAVITY (	H20 = 1)	0.98600
VAPOR PRESSURE (mm Hg.)	4.4	MELTING POINT		NI
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (	Butyl Acetate = 1)	NI
SOLUBILITY IN WATER: Insoluble at 60° F.	I	J		
APPEARANCE AND ODOR: Amber Liquid, Bland Odor			······································	
OTHER INFORMATION: Viscosity Units > 100 pH = 6.0 - 7.5 _Freezing Point = NI Dry Point = NI				
Density (Lb./Gal.) = 8.21				
DANGER Physical Hazards:- Flammable Liquid				•
Generic Name:- Polymerized Polyol			· · ·	
UN/NA Number:- NA 1993				
DOT Response Number:- 27				
DOT Proper Shipping Name:- Flammable Liquid, n (Petroleum Solvent, Butanol)	.0.\$.			
DOT Hazard Class:- 3				
DOT Packing Group:- III				
DOT/CERCLA RQ:- N/App.				
This product contains chemicals which are su Amendments and Reauthorization Act of 1986. T	bject to the report he corresponding CAS	ing requirements of S numbers and percen	Section 313 of Title t by weight are liste	III of the Superfund d above.
. SE	CTION IV - FIRE AND	EXPLOSION HAZARD DA	TA	
FLASH POINT: 101 º F.	and the close of a weak and "The provents a block for parameter of	FLAMMABLE LIMITS:	LEL: NI	UEL: NI
		L		

XTINGUISHING MEDIA: Dry Chemical CO2

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MSDS NUMBER: 2182 PRODUCT NAME: INC 2182 Emulsion Breaker Intermediate

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

Page: 2

### Water Spray Water Fog

SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see section V - decomposition products possible.

Fight fire from safe distance / protected location.

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

UNUSUAL FIRE FIGHTING PROCEDURES: --

None.

SECTION V - REACTIVITY DATA

STABILITY:

Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid.

Heat, sparks, open flames, and elevated temperatures.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION: Not expected to occur.

SECTION VI - HEALTH HAZARD DATA

### ROUTE(S) OF ENTRY:

Inhalation:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Eye'contact:- Primary Route

Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation.

Skin absorption:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be absorbed through the skin.

Skin irritation --

Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant.

Ingestion:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an ingestion hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Irritant to Eyes. Irritant to Skin. Moderate Ingestion Hazard. Moderate Inhalation Irritant. No data on Skin Absorption Found.

SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-

Irritation or redness of the skin may develop after exposure. (Dermatitis)

Eye Contact:-

Severe eye irritation may develop on exposure.

Ingestion:-

Severe irritation and burning of the linings of the mouth, throat, and stomach may develop. Large amounts, if retained, may lead to symptoms of central nervous system depression.

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Inhalation:~

### MSDS NUMBER: 2182

PRODUCT NAME: INC 2182 Emulsion Breaker Intermediate

SECTION VI - HEALTH HAZARD DATA (Continued)

Dizziness, coughing and shortness of breath may result. More severe symptoms are also possible.

# MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

# EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

### Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

### Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

# Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

# Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended.

# OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII).

SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal.

# PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel. Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

### OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

### VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

### PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

# Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

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# MSDS NUMBER: 2182

# PRODUCT NAME: INC 2182 Emulsion Breaker Intermediate

# SECTION VIII - CONTROL MEASURES (Continued)

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

# ADDITIONAL MANUFACTURER WARNINGS: NI

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Partie ...

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

	MATE	RIAL SAFE	TY DATA SHEET	
1SDS NUMBER: 2181 PART NUMBER: INC 2181 PRODUCT NAME: INC 2181 Emulsion Breaker Ir CAS NUMBER: 30846-35-6 CHEMICAL NAME: Phenolic Derivative	termediate			
	<u>n ya ana ana ana ana ina ina ina ina ina in</u>	SECTI	ION I	ng yan kan dan kana kana kana kana dan k
MANUFACTURER: / VENDOR: InterChem, Inc.				/\
ADDRESS: 3803 Mankins Odessa, TX 79763		HMIS RATINGS: HEALTH: 1 FIRE: 2	HEALTH / $\$ FIRE 1 / $\$ 2	
EMERGENCY TELEPHONE NUMBER: (915)550-7027		· · · · · · · · · · · ·	PERSONAL PROTECTION:	
INFORMATION TELEPHONE NUMBER: (915)550-702	?7			SPEC. HAZ.\ / REACT
DATE PREPARED: 11/01/93				() 
		1211-212-2-2-2		
SECT	ION II - HAZAR	DOUS INGR	EDIENTS/IDENTITY INFORMATION	
CAS NUMBER HAZARDOUS COMPONENT		NTP	SUB- SARA OTHE IARC PART/Z 313 OSHA PEL ACGIH TLV RECC	R LIMITS MMENDED PERCENT
64742-95-6 Petroleum Solvent 91-20-3 Naphthalene 75-21-8 Ethylene oxide		? ? ?	?? N 100 ppm. 100 ppm. ?? Y 10 ppm. 10 ppm. Y ? N 1 ppm. 5 ppm.	10-17 % 2 % Traces
	SECTION III -	PHYSICAL/	CHEMICAL CHARACTERISTICS	
BOILING POINT	NI		SPECIFIC GRAVITY (H2O ≠ 1)	1.01000
VAPOR PRESSURE (mm Hg.)	4.4		MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	NI		EVAPORATION RATE (Butyl Acetate = 1)	N/App.
SOLUBILITY IN WATER: Disp∉rsible at 77 ♀	F.			
APPEARANCE AND ODOR: Dark Amber Viscous L	iquid, Bland Od	lor		
OTHER INFORMATION: Viscosity Units > 100 pH = (5%) 9 - Freezing Point = NI Dry Point = NI	11			
Density (Lb./Gal.) = 8.35				
DANGER Physical Hazards:- Flammable Liquid				
Generic Name:- Phenolic Derivative				· .
UN/NA Number:- NA 1993				
DOT Response Number:- 27				
DOT Proper Shipping Name:- Flammable Liqu (Contains Petroleum Solvent)	id, n.o.s.			
DOT Hazard Class:- 3				
DOT Packing Group:- III				
DOT/CERCLA RQ:- 100 Lbs. (Naphthalene)				
This product contains chemicals which a Amendments and Reauthorization Act of 198	ire subject to 1 86. The corresp	the report ponding C/	ting requirements of Section 313 of Title I AS numbers and percent by weight are listed	II of the Superfund above.
1	SECTION IV	- ETDE ANI	D EXPLOSION HAZARD DATA	
	SECTION IV		D EXTEROION INCENTO DATA	· · · · · · · · · · · · · · · · · · ·

EXTING	SUISHING	MEDIA:
Dry	Chemical	L
co2		

MSDS NUMBER: 2181 PRODUCT NAME: INC 2181 Emulsion Breaker Intermediate

# SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

Page: 2

Water Spray Water Fog

# SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see section V - decomposition products possible.

Fight fire from safe distance / protected location.

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

# UNUSUAL FIRE FIGHTING PROCEDURES:

Releases vapors at normal ambient temperatures. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Flammable vapors may be heavier than air. May travel long distances along the ground before igniting/flashing back to vapor source. Diluting with water may not suffice to raise flash point above ambient temperatures.

SECTION V - REACTIVITY DATA

### STABILITY:

Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid.

Strong Acids.

Strong Alkalies.

Heat, sparks, open flames, and elevated temperatures.

# HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous carbon monoxide and carbon dioxide from burning.

### HAZARDOUS POLYMERIZATION:

Not expected to occur.

SECTION VI - HEALTH HAZARD DATA

### ROUTE(S) OF ENTRY: Inhalation:~

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Eye contact:- Primary Route

Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation.

\$kin absorption:-

No appropriate human or animal health effects data are known to exist.

Skin irritation:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant.

Ingestion:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an ingestion hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC):

Acute Health Effects:- (Short Term) Irritant to Eyes. Irritant to Skin. Severe Ingestion Hazard. Vapors, if inhaled, will irritate the nasal mucosae. No data on Skin Absorption Found.

Large amounts, if retained, lead to symptoms of central nervous system depression.

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SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-

Irritation or redness of the skin may develop after exposure (dermatitis).

# Eye Contact:-

Severe eye irritation may develop on exposure.

Ingestion:-



MSDS NUMBER: 2181

PRODUCT NAME: INC 2181 Emulsion Breaker Intermediate

# SECTION VI - HEALTH HAZARD DATA (Continued)

Severe irritation and burning of the linings of the mouth, throat, and stomach may develop, along with nausea, vomiting.

### Inhalation:-

Irritation of the eyes, nose and throat, along with coughing and shortness of breath may result. More severe symptoms are also possible.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

This material or its emissions may affect the central nervous system and/or aggravate pre-existing disorders. Prolonaed observation may be indicated.

### EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

### Eve Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

# Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

### Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended.

### OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

# WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

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Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

### OTHER PRECAUTIONS:

Wash Thoroughly after handling.

Do not get it eyes, on skin, or clothing.

Do not breathe dust, vapor, mist, or gas.

Keep Container closed when not in use.

Empty container may contain hazardous residues.

# SECTION VIII - CONTROL MEASURES

# VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

# PERSONAL PROTECTIVE EQUIPMENT: Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

# Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

# Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

# Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

### Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

# ADDITIONAL MANUFACTURER WARNINGS: NI

# OTHER PRECAUTIONS AND COMMENTS:

### Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

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This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

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р- к. — — — — — — — — —	]	MATERIAL SAFETY DATA SHEET	Dage 1
PRINTED	7-27-93		rage I
INC-1801 ID: 6-00277	BURFACTANT INTERN 74	IEDIATE	
1 - GENER	AL INFORMATION		
	InterChem, Inc. 3803 Mankins 7	9763	
	P.O. Box 13166	79768	
	Odessa, TX		
	(915) 550-7027		
	24hr. Emergency		· .
		· · · · • • • • • • •	
	OFC 1601 SURFACTANT INTER GENERIC NAME	MEDIATE DATE REVISED: 12/31/87	
	DOT DRODED SHIDDING NAME		
	ISOPROPANOL SOLUTION	UN 1219	
	DOT HAZARD CLASS FLAMMABLE LIQUID NFPA CLASSIFICATION: HEAL	TH (2) FLAMMABILITY (3) REACTIVITY (1)	
	SPEC DOT/CERCLA RQ: N/AP	IFIC HAZARD (NONE)	
2 - SUMMA	RV OF HAZARDS		
	DANGER PHYSICAL HAZARDS:	HIGHLY FLAMMABLE LIQUID	
	ACUTE HEALTH EFFECTS:	SEVERE EYE IRRITANT	
	(SHORT-TERM)	MODERATE SKIN IRRITANT MUCOUS MEMBRANE IRRITANT	
		SLIGHT SKIN ABSORPTION HAZARD	
		SEIGHT INGESTION HAZARD	
	CHRONIC HEALTH EFFECTS: (LONG-TERM)	SEE SUPPLEMENT	
	•		
3 - COMPO	NENTS		
		CAS NIMBER	· · · · · · · · · · · · · · · · · · ·
	TRADE SECRET 2774-01# JSOPROPYL ALCOHOL WATER	67-63-0 7732-18-5	
	THIS PRODUCT CONTAINS NO S	ARA SECTION 313 LISTED CHEMIC	
 Л _ DUVCT			
4 - FRISL	CAL AND CREMICAL I	/AIA	ہے جب سے اس جب جب جب میں اس بنی بنا اس جب جے بنا اس جب جب جب م
	BOILING POINT	РН	
	AP 180F	AP 10.0 TO 13.0	
-	N/AP	N/AP	
~~	SPECIFIC GRAVITY (H2O=1 AT AP 1.04	39.2F) VOLATILE CHARACTERISTICS APPRECIABLE	
	VISCOSITY UNITS, TEMP.	SOLUBILITY IN WATER	

Page 2

PRINTED 7-27-93

INC-1801 SURFACTANT INTERMEDIATE `S ID: 6-002774 4 - PHYSICAL AND CHEMICAL DATA (continued) VAPOR PRESSURE STABILITY AP 18.9 MM HG AT 70F STARLE VAPOR SP GR (AIR=1 AT 60 - 90F) HAZARDOUS POLYMERIZATION .8 NOT EXPECTED TO OCCUR AP APPEARANCE AND ODOR AMBER LIQUID; NO DISTINCT ODOR. CONDITIONS AND MATERIALS TO AVOID HEAT, SPARKS, OPEN FLAME, AND ELEVATED PRESSURES. STRONG ACIDS AND STRONG OXIDIZERS HAZARDOUS DECOMPOSITION PRODUCTS INCOMPLETE COMBUSTION MAY PRODUCE CARBON MONOXIDE AND OTHER TOXIC GASES. 5 - OCCUPATIONAL EXPOSURE LIMITS SUBSTANCE SOURCE DATE TYPE VALUE TIME ISOPROPYL ALCOHOL 400 PPM 8 HRS OSHA 1978 PE 1984 400 PPM 8 HRS ACGIH T₩A NIOSH 1978 STEL 800 PPM **15 MIN** 6 - FIRE AND EXPLOSION AUTOIGNITION TEMP. METHOD= FLASH POINT METHOD=(D-56 ) AP 86F AP 750F FLAMMABLE LIMITS (% VOLUME IN AIR) AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE LOWER: AP 2.0 UPPER: AP 12.0 FIRE AND EXPLOSION HAZARDS RELEASES VAPORS AT NORMAL AMBIENT TEMPERATURES. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED.... FLAMMABLE VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG DISTANCES ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE. DILUTING WITH WATER MAY NOT SUFFICE TO RAISE FLASH POINT ABOVE AMBIENT TEMPERATURES. EXTINGUISHING MEDIA + DRY - CHEMICAL C02 WATER SPRAY FOAM FOR ALCOHOLS SPECIAL FIREFIGHTING PROCEDURES DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPO-SITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREAS-ING RISK OF BURNS/INJURIES, USE WATER SPRAY/FOG FOR COOLING.AVOID FROTHING/ STEAM EXPLOSION. BURNING LIQUID MAY FLOAT ON WATER. ALTHOUGH SOLUBLE, MAY NOT BE PRACTICAL TO EXTINGUISH FIRE BY WATER DILUTION. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/PUBLIC WATERS. 7 - HEALTH HAZARDS ROUTES OF EXPOSURE INHALATION OVEREXPOSURE MAY CAUSE IRRITATION TO THE RESPIRATORY TRACT AND TO OTHER MUCOUS MEMBRANES. EYE CONTACT -- PRIMARY ROUTE MAY CAUSE SEVERE EYE IRRITATION. SKIN ABSORPTION EXTENSIVE/PROLONGED OR REPEATED EXPOSURE TO THIS MATERIAL CAN RESULT IN SIGNIFICANT ABSORPTION.

PRINTED' 7-27-93

INC-1801 SURFACTANT INTERMEDIATE `S ID: 6-002774 7 - HEALTH HAZARDS (continued) SKIN IRRITATION MAY CAUSE DELAYED SKIN IRRITATION AND BLISTERING. INGESTION THIS MATERIAL MAY BE A SLIGHT HEALTH HAZARD IF INGESTED IN LARGE QUANTITIES. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE THIS MATERIAL OR ITS EMISSIONS MAY AFFECT MUCOUS TISSUE AND/OR AGGRAVATE MUCOUS MEMBRANE DYSFUNCTION. 8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES RESPIRATORY PROTECTION IF EXPOSURE CAN EXCEED THE PEL/TLV, USE ONLY NIOSH/MSHA APPROVED SUPPLIED AIR RESPIRATOR OPERATED IN A POSITIVE PRESSURE MODE AS SPECIFIED IN THE NIOSH/OSHA 1981 OCCUPATIONAL HEALTH GUIDELINES FOR CHEMICAL HAZARDS. EYE PROTECTION EYE PROTECTION, INCLUDING BOTH CHEMICAL SPLASH GOGGLES AND FACE SHIELD, MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPRAYING LIQUID OR AIRBORNE PARTICLES. CONTACT LENSES MUST NOT BE WORN. SKIN PROTECTION WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE. ENGINEERING CONTROLS LOCAL EXHAUST VENTILATION MAY BE REQUIRED IN ADDITION TO GENERAL ROOM VENT-ILATION. OTHER HYGENIC PRACTICES EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE. OTHER WORK PRACTICES USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER. 9 - EMERGENCY AND FIRST AID **INHALATION** IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL. CEYE CONTACT IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION. SKIN CONTACT IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH W/LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST. SEEK MEDICAL ATTENTION IF ILL EFFECT OR IRRITATION DEVELOPS. INGESTION IF LARGE QUANTITY SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION. EMERGENCY MEDICAL TREATMENT PROCEDURES CONTINUE TO RINSE EYE WITH CLEAN WATER FOR 20-30 MINUTES, RETRACTING EYELIDS OFTEN. CONTACT OPTHALMOLOGIST IMMEDIATELY. TREAT BURNS OR ALLERGIC REACTIONS CONVENTIONALLY AFTER DECONTAMINATION. 10 - SPILL AND DISPOSAL PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED EXTREMELY FLAMMABLE LIQUID. RELEASE CAUSES IMMEDIATE FIRE/EXPLOSION HAZARD. EXTINGUISH ALL IGNITION SOURCES. IMPOUND/RECOVER LARGE LAND SPILL; SOAK UP SMALL SPILL. ON WATER, MAY BIODEGRADE. CONTAIN/MINIMIZE

Page 3

ATERIAL SAFETY DATA SHEET

PRINTED 7-27-93

# INC-1801 SURFACTANT INTERMEDIATE ~S ID: 6-002774 10 - SPILL AND DISPOSAL (continued) DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS. WASTE DISPOSAL METHODS CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO POTENTIAL FOR EYE IRRITATION/WATER POLLUTION (SEE 40 CFR 261 AND 29 CFR 1910). LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS IN SYSTEMS COMPATIBLE WITH WATER SOLUBLE WASTES. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS. 11 - ADDITIONAL PRECAUTIONS HANDLING AND STORAGE PROCEDURES STORE IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAME, STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. STORE DRUMS WITH BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE REMOVING CLOSURE. CONTAINERS MUST BE GROUNDED BEFORE BEGINNING TRANSFER. ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. HANDLE "EMPTY" CONTAINERS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE. VAPOR SPACE ABOVE LIQUID MAY BE FLAMMABLE/EXPLOSIVE UNLESS BLANKETED WITH INERT GAS. DECONTAMINATION PROCEDURES ISOLATE, VENT, DRAIN, WASH AND PURGE SYSTEMS OR EQUIPMENT BEFORE MAINTEN-ANCE OR REPAIR. REMOVE ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR EXPLO-SIVENESS AND OXYGEN DEFICIENCIES. USE ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. OBSERVE PRECAUTIONS PERTAINING TO CONFINED SPACE ENTRY. 2 - LABEL INFORMATION USE STATEMENT FOR INDUSTRIAL USE ONLY SIGNAL WORD DANGER PHYSICAL HAZARDS EXTREMELY FLAMMABLE HEALTH HAZARDS MUCOUS MEMBRANE IRRITANT SEVERE EYE IRRITANT MAY CAUSE LONG-TERM ADVERSE HEALTH EFFECTS *PRECAUTIONARY MEASURES DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME. DO NOT STORE NEAR COMBUSTIBLE MATERIALS. DO NOT GET IN EYES. USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION. PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS. WASH THOROUGHLY AFTER HANDLING. 13 - SUPPLEMENT CHRONIC HEALTH HAZARDS - SECTION 2 AND 7 ONE OF THE COMPONENTS OF THIS PRODUCT HAS BEEN REPORTED IN ONE ANIMAL STUDY TO BE FETOTOXIC AT LEVELS OF 2.5% IN DRINKING WATER. NO TERATOGENIC EFFECTS WERE, OR HAVE BEEN, REPORTED. THERE ARE NO REPORTS OF ADVERSE REPRODUCTIVE EFFECTS IN HUMANS EXPOSED TO THIS CHEMICAL. ALL ELECTRICAL EQUIPMENT IN AREAS WHERE MATERIAL IS STORED AND/OR HANDLED SHOULD BE INSTALLED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE, N.F.P.A. NOTE -- QUALIFIERS AND CODES USED IN THIS MSDS EQ = EQUAL AP = APPROXIMATELY LT = LESS THAN GT = GREATER THAN = TRACE UK = UNKNOWN TR

Page 4

PRINTED 7-27	-93 MATERIAL SAFETY DATA SHEET	Page 5
INC-1801 SUR	FACTANT INTERMEDIATE	;
	N/AP = NOT APPLICABLE N/P = NO APPLICABLE INFORMATION FOUND N/DA = NO DATA AVAILABLE	
14 - DISCLAIN	1ERS	
SON SOL THE ARE EXF	AE OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM JRCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF. E INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE E RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, PRESS OR IMPLIED, REGARDING ITS CORRECTNESS.	
THE PRC AND LIA COM	E CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE DOUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS O OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM ABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY WNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.	
THI PRC MAY	IS MSDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE DOUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THIS MSDS INFORMATION Y NOT BE APPLICABLE.	
THI OSH	IS MSDS HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 1A HAZARD COMMUNICATION STANDARD (29 CFR 1200).	

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# MATERIAL SAFETY DATA SHEET

MSDS NUMBER: 1875 PART NUMBER: INC 1875 PRODUCT NAME: INC 1875 Surfactant / Corrosion Inhibitor Intermediate CAS NUMBER: 61789-71-7 CHEMICAL NAME: Quartz dust

SECTION I MANUFACTURER: / VENDOR: InterChem, Inc. HMIS RATINGS: HEALTH / HEALTH: 2 FIRE: 4

REACTIVITY: 0

PERSONAL PROTECTION:

\ FIRE

'n REACT.

2

SPEC. HAZ

EMERGENCY TELEPHONE NUMBER: (915)550-7027

Odessa, TX 79763

INFORMATION TELEPHONE NUMBER: (915)550-7027

DATE PREPARED: 03/01/94

ADDRESS: 3803 Mankins

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION							
CAS NUMBER HAZARDOUS COMPONENT	NTP	IARC	SUB- PART/Z	SARA 313	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED PERCENT
61789-71-7 Quaternary Ammonium Chloride 67-63-0 Isopropanol or Isopropyl alcohol	? ?	?	?	?	NI 400 ppm.	NI 400 ppm.	24-28 % 24-28 %

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	185 º F.	SPECIFIC GRAVITY (H2O = 1)	0.90600
VAPOR PRESSURE (mm Hg.)	40	MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	1.1	EVAPORATION RATE (Butyl Acetate = 1)	NI

SOLUBILITY IN WATER: Complete

APPEARANCE AND ODOR: Amber Liquid with Alcohol Odor

OTHER INFORMATION: Viscosity Units > 100 pH = 7.5 - 8.0

Freezing Point = App.  $-25 \ ^{\circ}F$ . Dry Point = App.  $-25 \ ^{\circ}F$ .

Density (Lb./Gal.) = 7.545

DANGER

Physical Hazards:-Flammable Liquid

Generic Name:- Quaternary Ammonium Chloride

UN/NA Number:- UN 1993

DOT Response Number:- 27

DOT Proper Shipping Name:- Flammable Liquid, n.o.s. (Contains Isopropanol)

DOT Hazard Class:- 3

DOT Packing Group:- III

DOT/CERCLA RQ:- N/App.

This product does not contain any chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Ammendments and Reauthorization Act of 1986.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA					
FLASH POINT: 58 º F.	FLAMMABLE LIMITS: LEL: NI	UEL: NI			
EXTINGUISHING MEDIA: Dry Chemical CO2 Water Spray					

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# MSDS NUMBER: 1875 PRODUCT NAME: INC 1875 Surfactant / Corrosion Inhibitor Intermediate

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

# Water Fog

# SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see section V - decomposition products possible.

Fight fire from safe distance / protected location.

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

### UNUSUAL FIRE FIGHTING PROCEDURES:

Releases vapors at normal ambient temperatures. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Flammable vapors may be heavier than air. May travel long distances along the ground before igniting/flashing back to vapor source. Diluting with water may not suffice to raise flash point above ambient temperatures.

SECTION V - REACTIVITY DATA

### STABILITY:

Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid.

Strong Acids.

Strong Alkalies. Heat, sparks, open flames, and elevated temperatures.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous carbon monoxide and oxides and/or compounds of nitrogen and sulfur.

### HAZARDOUS POLYMERIZATION: Not expected to occur.

SECTION VI - HEALTH HAZARD DATA

# ROUTE(S) OF ENTRY:

Inhalation:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Eye contact:- Primary Route

Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation.

Skin absorption:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be absorbed through the skin.

### Skin irritation:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant.

Ingestion:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an ingestion hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Corrosive to Eyes. Corrosive to Skin. Moderate Ingestion Hazard. Moderate Inhalation Hazard. No data on Skin Absorption Found.

SIGNS AND SYMPTOMS OF EXPOSURE:

### Skin Contact:-

Irritation or redness of the skin may develop after exposure.

# Eye Contact:-

Severe eye irritation may develop on exposure.

# Ingestion:-

Severe irritation and burning of the linings of the mouth, throat, and stomach may develop.
#### SECTION VI - HEALTH HAZARD DATA (Continued)

Page: 3

#### Inhalation:-

Coughing and shortness of breath may result. More severe symptoms are also possible.

#### MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

### EMERGENCY AND FIRST AID PROCEDURES:

#### Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

#### Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

#### Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

#### Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

#### Emergency Medical Treatment Procedures:~

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended. Administer an aqueous slurry of activated charcoal followed by a cathartic such as magnesium citrate or sorbitol.

#### OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

## STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

#### OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

#### VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

#### PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

#### Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due

#### MSDS NUMBER: 1875

PRODUCT NAME: INC 1875 Surfactant / Corrosion Inhibitor Intermediate

SECTION VIII - CONTROL MEASURES (Continued)

to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS: NI

#### OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense actions out of an in any control with the handling extreme use on disposal of the product.

expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

MATERIAL SAFETY DATA SHEET MSDS NUMBER: 725 PART NUMBER: INC 725 PRODUCT NAME: INC 725 Surfactant/Cleaner CAS NUMBER: - -0 CHEMICAL NAME: Cleaning Compound SECTION I MANUFACTURER: / VENDOR: InterChem, Inc. HMIS RATINGS: ADDRESS: 3803 Mankins HEALTH , FIRE HEALTH: 2 Odessa, TX 79763 FIRE: 4 2 / 4 REACTIVITY: 0 EMERGENCY TELEPHONE NUMBER: (915)550-7027 PERSONAL PROTECTION: CORR /0 / REACT. SPEC. HAZ.\ INFORMATION TELEPHONE NUMBER: (915)550-7027 DATE PREPARED: 04/01/94 SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION OTHER LIMITS SUB-SARA CAS NUMBER HAZARDOUS COMPONENT NTP IARC PART/Z 313 OSHA PEL ACGIH TLV RECOMMENDED PERCENT 8-10 %Wt. 64-17-5 Denatured Ethanol ? Y ? Ν 1000 ppm 1000 ppm 67-56-1 Methanol 1-3 %Wt. 2 2 ? 200 ppm. 200 ppm. 2 108-10-1 Methyl isobutyl ketone ? ? ? ? 50 ppm 50 ppm Traces 25 ppm. 25 ppm. 3-5 %₩t 111-76-2 Ethanol, 2-Butoxy ? ? ? Y Traces 111-42-2 Diethanolamine ? ? ? 3 ppm. 3 ppm. Y SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS BOILING POINT 0,98200 SPECIFIC GRAVITY (H20 = 1) 175 F. VAPOR PRESSURE (mm Hg.) MELTING POINT NI 45 3 EVAPORATION RATE (Butyl Acetate = 1) VAPOR DENSITY (AIR = 1) 2.0 SOLUBILITY IN WATER: Complete at 60 F. APPEARANCE AND ODOR: Light Amber Liquid, Citrus odor OTHER INFORMATION: pH = 10.5 to 12.0Viscosity Units = NI Freezing Point = App. 25 °F. Dry Point = NI Density (Lb./Gal.) = 8.18 DANGER Physical Hazards:-Flammable Liquid Corrosive to Metals Generic Name:- Cleaning Compound UN/NA Number:- UN 2924 DOT Response Number:- 29 DOT Proper Shipping Name:- Flammable liquid, corrosive, n.o.s. (Contains Ethanol, Ethanolamine) DOT Hazard Class:- 3 DOT Packing Group:- II DOT/CERCLA RQ:- 5,000 Lbs. (Methanol) This product contains chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. The corresponding CAS numbers and percent by weight are listed above.

MSDS NUMBER: 725 PRODUCT NAME: INC 725 Surfactant/Cleaner

SECTION IV - FIF	RE AND EXPLOSION HAZARD DATA
FLASH POINT: 65 º F.	FLAMMABLE LIMITS: LEL: 0.7 UEL: 19.0
EXTINGUISHING MEDIA: Dry Chemical CO2 Water Spray Water Fog	
SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see see	ction V - decomposition products possible.
Fight fire from safe distance / protected location.	
Heat may build pressure / rupture closed containers, spre	ading fire, increasing risk of burns / injuries.
May become combustible upon loss of aqueous carrier.	
Use water spray / fog for cooling.	· ·
Use water spray to disperse vapors; re-ignition is possib	de.
Notify authorities if liquid enters sewer / public waters	
UNUSUAL FIRE FIGHTING PROCEDURES: While not normally combustible, if water content is lost temperature. When mixed with air and exposed to ignition s heavier than air, may travel long distances along ground be	(as in a fire), material may release flammable vapors if exposed to high ource, vapors can burn in open or explode if confined. Vapors may be fore igniting / flashing back to vapor source.
Vapors may settle and concentrate in low areas.	
This material may produce a floating fire hazard in extre	me conditions.
SECTION	V - REACTIVITY DATA
STABILITY: Stable under normal conditions.	
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromi Strong Acids. Acidic clays, peroxides, halogens, vinyl chloride, and ic Strong Alkalies. Heat, sparks, open flames, and elevated temperatures.	ine, and Chromic Acid. Odine pentafluoride.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxi	ide and oxides and/or compounds of nitrogen and sulfur.
HAZARDOUS POLYMERIZATION: Not expected to occur under normal conditions. However, and acidic clays.	avoid exposure to polymerization catalysts, such as Aluminum Chloride,
SECTION	VI - HEALTH HAZARD DATA
ROUTE(S) OF ENTRY: Inhalation:- Although no appropriate human or animal health effects da hazard.	ata are known to exist, this material is expected to be an inhalation
Eye contact:- Primary Route Although no appropriate human or animal health effects da irritation, with potential destruction of eye tissues.	ata are known to exist, this material is expected to cause severe eye
Skin absorption:- Prolonged or widespread skin contact may result in the a	bsorption of potentially harmful amounts of material.
Skin irritation:- Although no appropriate human or animal health effects d irritant.	ata are known to exist, this material is expected to be a severe skin
Ingestion:- Although no appropriate human or animal health effects d hazard.	ata are known to exist, this material is expected to be a severe ingestion

MSDS NUMBER: 725 PRODUCT NAME: INC 725 Surfactant/Cleaner

SECTION VI - HEALTH HAZARD DATA (Continued)
HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Corrosive to Eyes. Corrosive to Skin. Severe Ingestion Hazard. Repeated inhalation will result in irritation of the mucous membranes Prolonged or widespread skin contact may result in the absorption of potentially harmful amounts of material.
SIGNS AND SYMPTOMS OF EXPOSURE: Skin Contact:- Irritation or redness of the skin may develop after exposure, along with tissue destruction, fissures, ulceration, and possibly bleeding into the injured area.
Eye Contact:- Severe eye irritation may develop on exposure, experienced as discomfort or pain, excess blinking and tear production, marked excess redness and swelling of the conjunctivae, and chemical burns of the eyes.
Ingestion:- Severe irritation and burning of the linings of the mouth, throat, and stomach may develop. Aspiration into the lungs may occur during ingestion or vimiting, resulting in lung injury. Causes pair or discomfort in the mouth, throat, chest, and abdomen, with nausea, vomiting, diarrhea, dizziness, drowsiness, thirst, faintness, weakness, circulatory collapse, and coma.
Inhalation:- Coughing and shortness of breath may result. More severe symptoms are also possible.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Prolonged or repeated contact with this material may aggravate existing dermatitis. Inhalation may aggravate asthma and inflammatory or fibrotic pulmonary disease.
EMERGENCY AND FIRST AID PROCEDURES: Inhalation:- If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.
Eye Contact:- In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.
Skin Contact:- Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.
Ingestion:~ If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.
Emergency Medical Treatment Procedures:- Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended.
OTHER HEALTH WARNINGS: The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.
SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.
LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank.
Neutralize liquid with sodium carbonate (will foam).
Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD: Comply with Federal / State / Local regulations for disposal. RODUCT NAME: INC 725 Surfactant/Cleaner

### SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE (Continued)

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

Store drums away from oxidizers, strong acids.

#### OTHER PRECAUTIONS:

NUMBER: 725

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

## SECTION VIII - CONTROL MEASURES

## VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

#### PERSONAL PROTECTIVE EQUIPMENT: Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

#### Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

#### ADDITIONAL MANUFACTURER WARNINGS: NI

#### OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling storage use or disposal of the product.

expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

Petated	02-10-1997	TERIAL SAFETY DATA CHEEN
BASELINK(R) MSDS ID: 6-0:	BFL-9454 DRILLING FOAM	CONCENTRATE
1 - GEN	ERGL INFORMATION	
	CHEMLINK PETROLEUM	
	9100 W. 21ST STREET Sand Springs, ok 74063	
	800/424-9300 ChemTrec 800/232-1616 Emergency 800/722-5660 In Oklahoma 918/493-4347 Out Cont. US	
	GENERIC NAME	DATE CREATED: 05-13-88
	MIXED SULFATE/SULFUNATES DOT PROPER SHIPPING NAME COMBUSTIBLE LIQUID, N.O.S. DOT HAZARD CLASS COMBUSTIBLE LIQUID	UN/NA NUMBER Na 1993
	NFPA CLASSIFICATION: HEALTH SPECIF	:(2) FLAMMABILITY:(2) REACTIVITY:(0) IC HAZARD:(N/AP)
	DOT/CERCLA RQ: NONE	
2 - EUX	MARY OF HAZARDS	
	CAUTION PHYSICAL HAZARDS: M	DDERATELY COMBUSTIBLE
	ACUTE HEALTH EFFECTS: N (SHORT-TERM) N N N N	D DATA FOUND; SUSPECT INHALATION HAZARD D DATA FOUND; SUSPECT EYE CONTACT HAZARD D DATA FOUND; SUSPECT SKIN ABSORPTION HAZARD D DATA FOUND; SUSPECT SKIN IRRITATION HAZARD D DATA FOUND; SUSPECT INGESTION HAZARD
	CHRONIC HEALTH EFFECTS: N (LONG-TERM)	D DATA FOUND
3 - COM	IPCNENTS	
	COMPONENT NAME	CAS NUMBER % COMPOSITION BY (WT.)
	TRADE SECRET 10415-01# 1-T-BUTOXY-2-PROPANOL TRADE SECRET 10415-02# TRADE SECRET 10415-03#	57018-52-7
	WATER	7732 - 18 - 5
	THIS PRODUCT CONTAINS NO SAR	A SECTION 313 LISTED CHEMICAL(S)
2 PPS	CIDAL AND CREMICAL CA	.» 
	BOILING POINT	9년 8 9년
	nr 414F	DRY POINT
	FREEZING POINT	
	FREEZING POINT N/DA SPECIFIC GRAVITY (H2O=1 AT 3	N/DA 9.2F} VOLATILE CHARACTERISTICS
	FREEZING POINT N/DA SPECIFIC GRAVITY (H2O=1 AT 3 AP 1.01 VISCOSITY UNITS TEMP	N/DA 9.2F} VOLATILE CHARACTERISTICS MODERATE SOLUBILITY IN WATER

RILLING FOAME CREMIDAL OAT SSURE MM HG AT 70F GR (AIR=1 AT 60 - 90F) 7 E AND ODOR QUID/HEAVY SWEET ODOR S AND MATERIALS TO AVO ARKS, AND OPEN FLAMES XIDIZING AGENTS; STRON DECOMPOSITION PRODUCT TO DECOMPOSITION MAY P S OF SULFUR AND NITROG EXFOSJEE LIM SOURCE DATE T ISHED STANDARDS LIMITS (% VOLUME IN A ATMOSPHERIC TEMPERATU : AP 1.1 EXPLOSION HAZARDS TED ABOVE FLASH POINT, TO IGNITION SOURCE, VA YY BE HEAVIER THAN AIR SNITING/FLASHING BACK 3LE AT TEMPERATURES BE HING MEDIA ICAL RAY	AUT AUT AUT AUT AUT AUT AUT AUT AUT AUT	TE ABILITY FABLE CARDOUS POLYP DT EXPECTED T BON MONOXIDE VALUE VALUE TOIGNITION TH SSURE UPPER: AP VAPORS. WHEN	AND TRACE OX TIME AND METHOD= 10.6	DES AND/OR	
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BLE AT TEMPERATURES BE HING MEDIA ICAL RAY	TO VAPOR SO	DURCE. FINE S	SPRAYS/MIST M	AY BE	
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RAY					
IREFIGHTING PROCEDURES	5				
NTER FIRE AREA WITHOUT	F PROPER PRO	DIECTION. SEE	E SECTION 4 -	DECOMPO-	
BUILD PRESSURE/RUPTUR	RE CLOSED CO	ONTAINERS, S	PREADING FIRE	INCREAS-	
OF BURNS/INJURIES. US PLOSION. BURNING LIOUI	SE WATER SPR ID MAY FLOAT	RAY/FOG FOR ( T ON WATER, A	COOLING.AVOID ALTHOUGH SOLU	FROTHING/ BLF. MAY	
RACTICAL TO EXTINGUISH	H FIRE BY WA	ATER DILUTION	N. NOTIFY AUT	HORITIES	
) 5	,				
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BASELINK(R) BFL- MSDS ID: 6-010415	-9454 DRILLING FOAM CONCENTRATE	
Z - MERLTH	HAZARDS (centinued)	
	INGESTION ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DAIA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INGESTION HAZARD. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE NO ADDITIONAL MEDICAL INFORMATION FOUND.	
8 - PRGTEC	TIVE EQUIPMENT / CONTROL MERSURES	
	RESPIRATORY PROTECTION IF EXPOSURE CAN EXCEED THE PEL/TLV, USE ONLY NIOSH/MSHA APPROVED SUPPLIED AIR RESPIRATOR OPERATED IN A POSITIVE PRESSURE MODE AS SPECIFIED IN THE NIOSH/OSHA 1981 OCCUPATIONAL HEALTH GUIDELINES FOR CHEMICAL HAZARDS. EYE PROTECTION EYE PROTECTION SUCH AS CHEMICAL SPLASH COGGLES AND/OR FACE SHIELD MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID, AIRBORNE PARTICLES, OR VAPOR. CONTACT LENSES SHOULD NOT BE WORN. SKIN PROTECTION WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE. ENGINEERING CONTROLS LOCAL EXHAUST VENTILATION MAY BE REQUIRED TO MEET EXPOSURE STANDARD(S) IN ADDITION TO GENERAL ROOM VENTILATION. OTHER HYGENIC PRACTICES EMERGENCY EYE MASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE. OTHER WORK PRACTICES USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, CMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.	
9 - EMERGE	YCY AND FIRST AID	· · · · · · · · · · · · · · · · · · ·
	INHALATION IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL. EYE CONTACT IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION. SKIN CONTACT IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH W/LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST. SEEK MEDICAL ATTENTION IF ILL EFFECT OR IRRITATION DEVELOPS.	
	IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION. EMERGENCY MEDICAL TREATMENT PROCEDURES IF EXPOSED, TREAT SKIN AND EYE BURNS OR IRRITANTS CONVENTIONALLY AFTER DECONTAMINATION. IF SWALLOWED, DO NOT INDUCE VOMITING. GASTRIC LAVAGE AND CATHARTIC INDICATED.	
10 - SPILL	AND DISPOSE.	
	PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED COMBUSTIBLE LIQUID. EXTINGUISH ALL IGNITION SOURCES. BLANKET WITH FIREFIGHTING FOAM. SOAK UP SMALL SPILL. ON WATER, CONTAIN/MINIMIZE DISPERSION, COLLECT. REPORT PER REGULATORY REQUIREMENTS.	

Trinted C2-10-1989 MATERIAL SAFETY DATE SHES	an a
BASELINK(R) BFL-9454 DRILLING FOAN CONCENTRATE	τ
10 SFILL PND DISPOSAL (continued)	
WASTE DISPOSAL METHODS CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO POTENTIALLY LOW FLASH POINT (SEE 40 CFR 261 AND 29 CFR 1910). WASTE MAY BE DESIGNATED DOOI UNDER RCRA LISTING DUE TO PRESENCE OF ISOPROPYL ALCOHOL. LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CON- CENTRATED LIQUIDS. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISON- ING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.	
11 - ADDITIONAL PRECAUTIONO	
HANDLING AND STORAGE PROCEDURES STORE IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS. STORE AWAY FROM HEA!, SPARKS, OPEN FLAME AND STRONG OXIDIZING AGENIS. DECONTAMINATION PROCEDURES ISOLATE, VENT, DRAIN, WASH, AND PURGE EQUIPMENT BEFORE MAINTENANCE. REMOVE ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR EXPLOSIVENESS AND OXYGEN DEFICIENCIES. IF ANY RESIDUAL PRODUCT MAY BE PRESENT, TOTAL-ENCAPSULATING IMPERVIOUS PROTECTIVE SUITS, GLOVES, AND BOOTS SHOULD BE WORN. SEE PROTECTIVE EQUIPMENT SECTION 8 FOR PROPER RESPIRATORY PROTECTION.	
12 - LABEL INFORMATION	
USE STATEMENT FOR INDUSTRIAL USE ONLY KEEP OUT OF REACH OF CHILDREN SIGNAL WORD CAUTION PHYSICAL HAZARDS COMBUSTIBLE HEALTH HAZARDS SKIN IRRITANT INGESTION AND INHALATION HAZARD SEVERE EYE IRRITANT HIGH SKIN CONTACT HAZARD PRECAUTIONARY MEASURES DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID CONTACT KITH EYES, SKIN, AND CLOTHING. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR. USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION. PREVENT CONTACT WITH FOOD, CHEMING, OR SMOKING MATERIALS. WASH THOROUGHLY AFTER HANDLING. DO NOT TASTE/SWALLOW. KEEP CONTAINER CLOSED.	
13 - CLPPLEMENT	
NOTE QUALIFIERS AND CODES USED IN THIS MSDS EQ = EQUAL AP = APPROXIMATELY LT = LESS THAN GT = GREATER THAN TR = TRACE UK = UNKNOWN N/AP = NOT APPLICABLE N/P = NO APPLICABLE INFORMATION FOUND N/DA = NO DATA AVAILABLE	
14 - 01801AIMERS	
SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM	

BASELINK(R) BFL-9454 DRILLING FOAME CONCENTRATE

# 14 · DISCLAIMERS (continued)

SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

THIS MSDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE PRODUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THIS MSDS INFORMATION MAY NOT BE APPLICABLE.

THIS MSDS HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1200).

· · · · · · · · · · · · · · · · · · ·	MATERIAL SAFE	TY DATA SHEET	
MSDS NUMBER: 1850 PART NUMBER: INC 1850 PRODUCT NAME: INC 1850 Surfactant Intermedi CAS NUMBER: 68649-55-8 CHEMICAL NAME: Ammonium Salt of Sulfated No	ate nylphenoxy(branched)Eth	yleneoxy Ethanol	
	SECTI	ON I	
MANUFACTURER: / VENDOR: InterChem, Inc.			
ADDRESS: 3803 Mankins Odessa, TX 79763		HMIS RATINGS: HEALTH: 3 FIRE: 2	HEALTH / \ FIRE 3 / \ 2
EMERGENCY TELEPHONE NUMBER: (915)550-7027		PERSONAL PROTECTION:	
INFORMATION TELEPHONE NUMBER: (915)550-7027		SPE	C. HAZ.\ / REACT.
DATE PREPARED: 07/01/94			
SECTI	ON II - HAZARDOUS INGRE	EDIENTS/IDENTITY INFORMATION	
		SUB- SARA OTHER LI	MITS
CAS NUMBER HAZARDOUS COMPONENT	NTP	IARC PART/Z 313 OSHA PEL ACGIH TLV RECOMMEN	DED PERCENT
64-17-5 Ethanol 123-91-1 Dioxane 0 Ammonium salt of sulfated nonyl Ehtyleneoxy Ethanol	? ? .phenoxy(branched) ?	??????????????????????????????????????	Propriet. Traces Propriet.
······	SECTION III - PHYSICAL/	CHEMICAL CHARACTERISTICS	
BOILING POINT	185 ºF.	SPECIFIC GRAVITY (H2O = 1)	1.01000
VAPOR PRESSURE (mm Hg.)	-25.00	MELTING POINT	< 30 F.
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI
SOLUBILITY IN WATER: Soluble at 25 F.	· · · · · · · · · · · · · · · · · · ·	L	<u></u>
APPEARANCE AND ODOR: Light amber liquid, a	lcohol odor.		
OTHER INFORMATION: Viscosity Units = NI pH = App. 2.0 Freezing Point = NI Dry Point = NI			
Density (Lb./Gal.) = 8.64 DANGER Physical Hazards:- Flammable Liquid Corrosive to Metals			
Generic Name:- Ammonium salt of sulfated,	alkoxylated, branched,	nonylphenol	
UN/NA Number:- UN 2920			
DOT Response Number:- 29			
DOT Proper Shipping Name:~ Corrosive Liqui	d, flammable, n.o.s. (	Contains Isopropanol)	
DOT Hazard Class:- 8			
DOT Packing Group:- II	······································		
DOT/CERCLA RQ:- N/App.	· · ·		
This product contains chemicals which a Amendments and Reauthorization Act of 1980	re subject to the repor 5. The corresponding C	ting requirements of Section 313 of Title III o AS numbers and percent by weight are listed abo	f the Superfund ve.
	SECTION IV - FIRE AN	D EXPLOSION HAZARD DATA	
FLASH POINT: 110 ºF.	······································	FLAMMABLE LIMITS: LEL: 3.3 % UEL:	19.0 %

MSDS NUMBER: 1850 PRODUCT NAME: INC 1850 Surfactant Intermediate

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

EXTINGUISHING MEDIA: Dry Chemical

C02 Water Spray Water Fog Sand/Earth

## SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see section V - decomposition products possible.

Fight fire from safe distance / protected location.

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

#### UNUSUAL FIRE FIGHTING PROCEDURES:

Releases vapors at normal ambient temperatures. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Flammable vapors may be heavier than air. May travel long distances along the ground before igniting/flashing back to vapor source. Diluting with water may not suffice to raise flash point above ambient temperatures.

SECTION V - REACTIVITY DATA

STABLI ITY.

Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid.

Strong Alkalies. Heat, sparks, open flames, and elevated temperatures.

#### HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous carbon monoxide, carbon dioxide, and oxides and/or compounds of sulfur and nitrogen.

HAZARDOUS POLYMERIZATION:

Not expected to occur.

SECTION VI - HEALTH HAZARD DATA

#### ROUTE(S) OF ENTRY: Inhalation:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Eye contact:- Primary Route

This material is expected to cause severe eye irritation, with possible destruction of eye tissues.

Skin absorption:-

No appropriate human or animal health effects data are known to exist.

Skin irritation:-

This material is expected to be a severe skin irritant, may cause burns of skin tissues.

Ingestion:-

This material is expected to be an ingestion hazard.

```
HEALTH HAZARDS (ACUTE AND CHRONIC):
Acute Health Effects:- (Short Term)
  Corrosive to Eyes.
  Corrosive to Skin.
  Severe Ingestion Hazard.
  Severe inhalation Hazard.
 No data on Skin Absorption Found.
```

SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-

Irritation or redness of the skin may develop after exposure, with possible severe burns.

Eve Contact:-

Severe eye irritation may develop on exposure. Destruction of eye tissues is possible.

Ingestion:-

MSD'S NUMBER: 1850

PRODUCT NAME: INC 1850 Surfactant Intermediate

SECTION VI - HEALTH HAZARD DATA (Continued)

Severe irritation and burning of the linings of the mouth, throat, and stomach may develop.

Inhalation:-

Coughing and shortness of breath may result. More severe symptoms are also possible.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Any preexisting dermatitis, conjunctivitis, rhinitis may be aggravated by exposure.

## EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

#### Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If large quantity swallowed, have victim rinse mouth, then drink large quantities of water, if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended. Intubation may be necessary.

## Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Administer an aqueous slurry of activated charcoal followed by a cathartic such as magnesium citrate or sorbitol.

OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank.

Carefully neutralize with Sodium Carbonate (will foam).

Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

OTHER PRECAUTIONS: Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

MSDŠ NUMBER: 1850 PRODUCT NAME: INC 1850 Surfactant Intermediate

## SECTION VIII - CONTROL MEASURES (Continued)

## PERSONAL PROTECTIVE EQUIPMENT:

Treat as a Strong Acid.

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

## Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

#### Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

#### Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

#### Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

## SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS: Treat as a Strong Acid.

## OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

	MATERIAL SAFE	TY DATA SHEET	
MSDS NUMBER: 1895 PART NUMBER: INC 1895 PRODUCT NAME: INC 1895 Surfactant Intermediate CAS NUMBER:0 CHEMICAL NAME: OxyAlkylated Phenol			
	SECT	ION I	
MANUFACTURER: / VENDOR: InterChem, Inc.			^
ADDRESS: 3803 Mankins Odessa, TX 79763		- HMIS RATINGS: HEALTH: 1 FIRE: 1	HEALTH / \ FIRE
MERGENCY TELEPHONE NUMBER: (915)550-7027		PERSONAL PROTECTION:	
NFORMATION TELEPHONE NUMBER: (915)550-7027			SPEC. HAZ.\ / REA
DATE PREPARED: 12/05/93	······	-	V
	······		
SECTION 1	I - HAZARDOUS INGR	EDIENTS/IDENTITY INFORMATION	
CAS NUMBER HAZARDOUS COMPONENT	NTP	SUB- SARA IARC PART/Z 313 OSHA PEL ACGIH TLV	OTHER LIMITS RECOMMENDED PERCENT
SECT	ION III - PHYSICAL	CHEMICAL CHARACTERISTICS	
BOILING POINT	>200 º F.	SPECIFIC GRAVITY (H2O = 1)	1.02000
VAPOR PRESSURE (mm Hg.)	0.1	MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI
SOLUBILITY IN WATER: Complete	L		
APPEARANCE AND ODOR: Colorless Liquid - No Dis	tinct Odor		
OTHER INFORMATION: Viscosity Units = NI pH = 6.0 to 8.0 Freezing Point = NI Dry Point = NI			
Density (Lb./Gal.) = 8.47			
DANGER Physical Hazards:~ Slightly Combustible Liquid			
Generic Name:- OxyAlkylated Phenol			
UN/NA Number:- N/App.			
DOT Response Number:- N/App.			
DOT Proper Shipping Name:- DOT Not Regulated			
DOT Hazard Class:- N/App.			
DOT Packing Group:- N/App.			
DOT/CERCLA RQ:- NONE			
This product does not contain any chemicals Ammendments and Reauthorization Act of 1986.	subject to the rep	porting requirements of Section 313 of T	itle III of the Superfun
	ECTION IV - ETRE AL	ND EXPLOSION HAZARD DATA	
\$			

Water Spray Water Fog

MSDS NUMBER: 1895 PRODUCT NAME: INC 1895 Surfactant Intermediate

#### SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see section V - decomposition products possible.

Fight fire from safe distance / protected location.

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

May become combustible upon loss of aqueous carrier.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

#### UNUSUAL FIRE FIGHTING PROCEDURES:

While not normally combustible, if water content is lost (as in a fire), material may release flammable vapors if exposed to high temperature. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air, may travel long distances along ground before igniting / flashing back to vapor source. Fine sprays / mists may be combustible at temperatures below normal flash point.

SECTION V - REACTIVITY DATA

#### STABILITY:

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Stable unde normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Strong Alkalies. Heat, sparks, open flames, and elevated temperatures.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous carbon monoxide and oxides and/or compounds of nitrogen.

HAZARDOUS POLYMERIZATION: Not expected to occur.

SECTION VI - HEALTH HAZARD DATA

## ROUTE(S) OF ENTRY:

Inhalation:-

Although no appropriate human or animal health effects data are known to exist, this material is not expected to be an inhalation hazard.

Eye contact:- Primary Route May cause eye irritation.

Skin absorption:-

Although no appropriate human or animal health effects data are known to exist, this material is not expected to be a health hazard by skin absorption.

## Skin irritation: - Primary Route

May cause delayed skin irritation and blistering.

Ingestion:-

This material may be a slight health hazard if ingested in large quantities.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Mild eye irritant. Mild skin irritant. Mild Ingestion Hazard. No data on Inhalation Found. No data on Skin Absorption Found.

SIGNS AND SYMPTOMS OF EXPOSURE: NI

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: No additional medical information found.

## EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:~

Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

## Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency

MSDS NUMBER: 1895 PRODUCT NAME: INC 1895 Surfactant Intermediate

## SECTION VI - HEALTH HAZARD DATA (Continued)

#### medical attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

#### Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

#### Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended.

## OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Slippery - spread granular cover. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers. On water may biodegrade.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

#### WASTE DISPOSAL METHOD:

Contaminated product/soil/water may be RCRA/OSHA hazardous waste due to potential for eye irritation/water pollution (see 40 CFR 261 and 29 CFR 1910). Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids in systems compatible with water soluble wastes. Aboid flameouts. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations.

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

#### VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

#### PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

### Eye Protection:~

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due

MSDS "NUMBER: 1895

PRODUCT NAME: INC 1895 Surfactant Intermediate

## SECTION VIII - CONTROL MEASURES (Continued)

to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

#### Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

#### ADDITIONAL MANUFACTURER WARNINGS:

For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.

#### OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or disposal of the product

expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).



(Continued on next page)

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MATERIAL SAFETY DATA SHEET
INC-2512 PAGE 2 Product Code:
FIRE AND EXPLOSION DATASECTION III
Special Fire Fighting Procedures:         Firefighters must be equipped to prevent breathing of vapors or products of combustion. Wear an approved self-contained breathing apparatus and protective clothing.         Unusual Fire and Explosion Hazards:         none         Flashpoint: (Method Used) Pensky-Martens closed-cup         154°F         Flammable limits %: not applicable         Extinguishing agents:         Drychemical or Waterspray or Waterfog or CO2 or Foam or Sand/Earth
HEALTH HAZARD DATASECTION IV
Permissible concentrations (air): aromatic petroleum solvent (supplier's recommendation): 100 ppm (563 mg/m ³ ) for an 8 hour workday. Chronic effects of overexposure: no data available Acute toxicological properties: eye and skin irritant for stoddard solvent and heavy aromatic naphtha: inhalation-irritation of eyes, nose and throat, dizziness; skin contact-dermatitis; eyes-irritation; ingestion-nausea, vomiting. Large amounts, if retained, lead to symptoms of central nervous system depression. 2-ethylhexyl alcohol: acute oral LD50 = 2.0-3.7 g/kg (rat), acute dermal LD50 = 2.0 g/kg (rabbit), acute inhalation LC50 = no death in rats @ 235 ppm/6H Emergency First Aid Procedures: Eyes: Immediately flush with large quantities of water for at least 15 minutes and call a physician. Skin Contact: Flush with large amounts of water for 15 minutes. Inhalation: Remove to fresh air. If breathing is difficult, give oxygen and call a physician If Swallowed: Call a physician.
SPECIAL PROTECTION INFORMATIONSECTION V
<u>Ventilation Type Required (Local, mechanical, special)</u> : mechanical <u>Respiratory Protection (Specify type)</u> : Use NIOSH/MSHA certified respirator with organic vapor cartridge if vapor concentration exceeds permissible exposure limit <u>Protective Gloves</u> : rubber or plastic, solvent resistant <u>Eye Protection</u> : chemical safety goggles
(Continued on next page)

MATERIAL SAFETY DATA SHEET

INC-2512

Product Code:

PAGE 3

(Section V continued)

Other Protective Equipment: neoprene protective type apron.

HANDLING OF SPILLS OR LEAKS---SECTION VI

Procedures for Clean-Up:

Absorb with an inert material such as sand, soil or vermiculite; sweep up and dispose of in accordance with federal, state and local regulations. Waste Disposal:

Dispose of in accordance with all applicable federal, state and local regulations.

SPECIAL PRECAUTIONS---SECTION VIT

Precautions to be taken in handling and storage:

Store between  $40\frac{1}{2}$  F and  $120\frac{1}{2}$  F.

TRANSPORTATION DATA---SECTION VIII <u>D.O.T.</u>: Regulated U.S. D.O.T. Proper Shipping Name: Combustible liquid, n.o.s. (Petroleum solvent.

2-Ethylhexanol)

U.S. D.O.T. Hazard Class: Combustible liquid

I.D. Number: NA 1993 PG III

Label(s) Required: none

Reportable Quantity: not applicable

Freight Classification: Oil Well Treating Compound

Special Transportation Notes:

Unregulated by DOT when shipped in containers of less than 118.9 gallons.

ENVIRONMENTAL/SAFETY REGULATIONS---SECTION IX

Section 313 (Title III Superfund Amendment and Reauthorization Act): This product does not contain any chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

COMMENTS

Avoid contact and/or mixing with strong bases. Contact with strong base will liberate free amine. PENNSYLVANIA WORKER AND COMMUNITY RIGHT TO KNOW ACT: This product contains the following ingredient(s) listed in Appendix A Hazardous Substance List:

(Continued on next page)

PAGE 4

## INC-2512

Product Code:

(COMMENTS continued)

2-ethylhexanol 104-76-7 This product contains the following ingredients at 3% concentration or greater: light aromatic solvent naphtha 64742-95-6 benzenesulfonic acid, dodecyl-, compd. with 2-aminoethanol (1:1) 26836-07-7

06/23/1992 11:15 HKJHANHUUHNESS/UHLLH-NUU. FILE PROFESSION INCOME Date Printed: 06-23-1992 Page 1 BAKER PERFORMANCE CHEMICALS INCORPORATED MSDS for ARFLOW 168 CAUTION CODE 2-1-0 ***** 1 -SECTION I - IDENTITY BAKER PERFORMANCE CHEMICALS, INC. EMERGENCY TELEPHONE NUMBER: A Baker Hughes companyCHEMTREC: 1-800-424-93003920 ESSEX LANE, P.O. BOX 27714800-231-3606HOUSTON, TX 77227-7714TELEPHONE NUMBER FOR INFORMATION: 713-599-7400 ARFLOW 168 CHEMICAL NAME: Complex Mixture CHEMICAL FAMILY: Sulfate 2 -SECTION II - REGULATORY CLASSIFICATION ENVIRONMENTAL OCCUPATIONAL TRANSPORTATION RQ= None OSHA Non-Hazardous: Yes Not Regulated: Yes TPO= None OSHA Hazardous: NA Regulated: NA Acute SARA S313: No Chronic Fire Pressure ID#: DOT Response #: Reactive 3 - SECTION III - HAZARDOUS INGREDIENTS HAZARDOUS CAS TLV* OSHA* MFG # PEL CEIL A/L TWA STEL COMPONENT REC This product is not hazardous by 29CFR, 1910.1200 regulations. *ppm unless otherwise indiciated SECTION IV - PHYSICAL & CHEMICAL PROPERTIES Specific Gravity @60F: Vapor Pressure Estimated: (H2O**≠**1) (mm.Hg @68F) <1 1.02 pH: Vapor Density 5% of Product: 10.4 (Air=1) >1

06/23/1992 11:15 HKJ HKJ HUUHINESS/ UNLER (1990). Date Printed: 06-23-1992 Page 2 BAKER PERFORMANCE CHEMICALS INCORPORATED MSDS for ARFLOW 168 CAUTION CODE 2-1-0 4 - SECTION IV - PHYSICAL & CHEMICAL PROPERTIES (continued) Solubility in Water: Soluble Appearance and Odor: Clear liquid with sweet odor Flash Point (Method): None Stability: Stable Haz. Decomp. Prod: Carbon monoxide; Conditions to Avoid: Oxidizers oxides of sulfur Hazardous Polymerization: Will not occur FIRE CONTROL PROCEDURES: Use foam, dry chemical, CO2, water fog or spray. Do not enter a fire area without proper protective equipment, including NIOSH/MSHA approved, self-contained breathing apparatus. Cool exposed containers with water spray. Avoid vapors. FIRE HAZARDS: No unusual fire hazards; material is not flammable and/or combustible. SECTION V - HEALTH HAZARDS EFFECTS OF OVEREXPOSURE: INHALATION: Inhalation of high levels of vapors or mists may cause lightheadedness, dizziness, headaches or unconsciousness. EYE CONTACT: Eye contact may cause irritation and redness. SKIN CONTACT: Prolonged or repeated contact with skin may cause irritation or contact dermatitis. INGESTION: May be harmful if ingested. 6 - SECTION VI - EMERGENCY & FIRST AID PROCEDURES EYE CONTACT: Flush eyes immediately with large amounts of water for at least 15 minutes. Call a physician if irritation persists. INHALATION: Remove to fresh air. If labored breathing continues, contact a physician. SKIN CONTACT: Remove contaminated clothes. Wash skin thoroughly with mild soap and water. Launder clothes before reuse. INGESTION: DO NOT induce vomiting. If conscious, drink large amounts of, water and contact a physician.

06/23/1992 11:16 ARJA	AQUANESS/CALLA-HOU.	713 9 7585 P.04
BAKER PERFORMANCE CHEMICALS MSDS for ARFLOW 168	Date P: 5 INCORPORATED	rinted: 06-23-1992 Page 3 CAUTION CODE 2-1-0
7 - SECTION VII - PROTY	ECTIVE EQUIPMENT RECOM	MENDATIONS
VENTILATION: The use of med product is used in a confine or is agitated. Where engine an area where there is natur	chanical ventilation i ed space, is heated ab eering controls are no ral air movement.	s recommended whenever this ove ambient temperatures, t feasible, assure use is in
RESPIRATORY	CHEMICAL RESISTAN APPAREL	T EYE/FACE
X As Needed Air Supplied (SCBA) Air Purifying Full Face Piece Half Face Piece X Cartridge or Cannister Acid Gas X Organic Vapor Ammonia	X Gloves Clothing Boots	X Goggles Full Face Shield
Jnder normal operating cond ( commended) exposure leve comperatures, lower atmosphic physical conditions that may protective equipment as des individual susceptibility a full medical evaluation sho	itions, no excursions ls should occur. Howev eric pressure (high al y increase the inhalat cribed above, should b nd sensitivity, before uld be performed per 2	above the regulated er, if used at elevated titudes) or any other ion exposure, respiratory e worn. Also, due to respirators are used, a 9 CFR 1910.134(b)(10).
thorough review of the jo afety professional should of protection. See 29 CFR information.	b task (job safety and be conducted to detern 1910, Subpart I and 29	lysis) by a competent line the appropriate level CFR 1910.133 for further
- SECTION VIII	- SPILL & LEAK PROCEDU	JRES
on appropriate protective intering a spill/leak area. ipwind if possible. Shut c iump large spills into saly	clothing and respirate Eliminate ignition a off leak if it can be o vage containers. Soak	bry protection prior to sources. Approach area ione safely. Dike and up residue and small spills

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into salvage containers. Soak up residue and small spills ith absorbent clay, sand, or dirt and place in salvage containers. If RQ reportable quantity) is exceeded, report to National Spill Response Office -800-424-8802. Also, in some jurisdictions, spills or leaks of any azardous materials are reportable--consult local lead agencies for further nformation. Continue to observe precautions.

06/23/1992 11:17 ARJA QUANESS/CALLA-HUU. 713 - 713 - 7355 F. 5 Date Printed: 06-23-1992 Page 4 BAKER PERFORMANCE CHEMICALS INCORPORATED MSDS for ARFLOW 168 CAUTION CODE 2-1-0 8 - SECTION VIII - SPILL & LEAK PROCEDURES (continued) WASTE DISPOSAL METHOD(S): Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures and processes may change the classification to non-hazardous, or hazardous for reasons other than, or in addition to product characteristics. Dispose of all waste and/or containers in accordance with federal, state and local regulations. REQUIREMENTS FOR TRANSPORTATION, HANDLING AND STORAGE: Transport, handle and store in accordance with OSHA Regulation 1910.106 and applicable DOT regulations. Avoid inhalation of vapors or mists. Do not get in eyes, on skin or on clothing Keep container closed when not in use. Wear suitable protection for eyes and skin when handling. Use with adequate ventilation. Avoid contact with oxidizers. Store in well-ventilated area. Store in cool, dry area. NOTE: The information on this MSDS is based on data which is considered to be accurate. Baker Performance Chemicals, Inc., however, makes no guarantees on warranty, either expressed or implied of the accuracy or completeness of this ' ormation. Baker does expressly disclaim any loss incurred with the

By: Karla M. Schweinberg Date: 3/9/88 Supercedes: New Regulatory Information Specialist

handling, storage, transportation, use or disposal of the product.



ATERIAL SAFETY DATA SHEET

Page 2

Printed 06-09-1993

OFC(R) 1535 PARAFFIN INHIBITOR INTERMEDIATE MSDS ID: 6-005649 4 - PHYSICAL AND CHEMICAL DATA (continued) APPEARANCE AND ODOR BROWN SOLID; PETROLEUM DISTILLATE ODOR CONDITIONS AND MATERIALS TO AVOID HEAT, SPARKS, OPEN FLAME, STRONG OXIDIZING CONDITIONS STRONG ACIDS, STRONG ALKALIES, STRONG OXIDIZING AGENTS HAZARDOUS DECOMPOSITION PRODUCTS INCOMPLETE COMBUSTION WILL GENERATE HIGHLY POISONOUS CARBON MONOXIDE AND PERHAPS OTHER TOXIC VAPORS. 5 - OCCUPATIONAL EXPOSURE LIMITS NONE ESTABLISHED FOR COMPONENTS OR PRODUCT 1 6 - FIRE AND EXPLOSION AUTOIGNITION TEMP. METHOD= FLASH POINT METHOD= > 200F (TCC) NO DATA AVAILABLE FLAMMABLE LIMITS (% VOLUME IN AIR) LOWER: NO DATA AVAILABLE UPPER: NO DATA AVAILABLE FIRE AND EXPLOSION HAZARDS WHEN HEATED ABOVE FLASH POINT, RELEASES VAPORS. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED. VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG DISTANCES ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE. FINE SPRAYS/MIST MAY BE COMBUSTIBLE AT TEMPERATURES BELOW NORMAL FLASH POINT. EXTINGUISHING MEDIA DRY CHEMICAL CO2 WATER SPRAY FOAM WATER FOG SPECIAL FIREFIGHTING PROCEDURES -DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPO-SITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREAS-ING RISK OF BURNS/INJURIES. DO NOT USE SOLID WATER STREAM/MAY SPREAD FIRE. USE WATER SPRAY/FOG FOR COOLING. AVOID FROTHING/STEAM EXPLOSION. BURNING LIQUID WILL FLOAT ON WATER. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/ PUBLIC WATERS. 7 - HEALTH HAZARDS . . . . . . . . . . . ROUTES OF EXPOSURE INHALATION -- PRIMARY ROUTE ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INHALATION HAZARD. EYE CONTACT -- PRIMARY ROUTE ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO CAUSE SEVERE EYE IRRITATION. SKIN ABSORPTION NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST. SKIN IRRITATION -- PRIMARY ROUTE ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A SEVERE SKIN IRRITANT. INGESTION ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INGESTION HAZARD. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE NO ADDITIONAL MEDICAL INFORMATION FOUND.

## MATERIAL SAFETY DATA SHEET

Printed 06-09-1993

## OFC(R) 1535 PARAFFIN INHIBITOR INTERMEDIATE MSDS ID: 6-005649 8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES RESPIRATORY PROTECTION NO OCCUPATIONAL EXPOSURE STANDARDS HAVE BEEN DEVELOPED FOR THIS MATERIAL. WHERE EXPOSURE THROUGH INHALATION MAY OCCUR FROM USE, NIOSH/MSHA APPROVED RESPIRATORY PROTECTION EQUIPMENT IS RECOMMENDED. EYE PROTECTION EYE PROTECTION, INCLUDING BOTH CHEMICAL SPLASH GOGGLES AND FACE SHIELD, MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPRAYING LIQUID OR AIRBORNE PARTICLES. CONTACT LENSES MUST NOT BE WORN. SKIN PROTECTION IMPERVIOUS PROTECTIVE SUIT WITH GLOVES, BOOTS, AND FULL HEAD AND FACE PROTECTION MUST BE WORN. THE EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE. ENGINEERING CONTROLS PROVIDE LOCAL EXHAUST OR GENERAL ROOM VENTILATION TO MINIMIZE EXPOSURE TO VAPORS. ELECTRICAL SYSTEMS SHOULD CONFORM TO NATIONAL ELECTRIC CODE. OTHER HYGENIC PRACTICES EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE. OTHER WORK PRACTICES USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER. 9 - EMERGENCY AND FIRST AID INHALATION IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL. FYE CONTACT IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION. SKIN CONTACT IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH WITH LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATER-LESS CLEANER FIRST. OBTAIN EMERGENCY MEDICAL ATTENTION. INGESTION INGESTION UNLIKELY. HOWEVER, IF INGESTED, OBTAIN EMERGENCY MEDICAL ATTENTION. EMERGENCY MEDICAL TREATMENT PROCEDURES IF EXPOSED, TREAT SKIN AND EYE BURNS OR IRRITANTS CONVENTIONALLY AFTER DECONTAMINATION. AFTER ADEQUATE FIRST AID, NO FURTHER TREATMENT IS REQUIRED, UNLESS SYMPTOMS REAPPEAR. 10 - SPILL AND DISPOSAL PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED RELEASE CAN CAUSE FIRE/EXPLOSION. EXTINGUISH ALL IGNITION SOURCES. IMPOUND/RECOVER LARGE LAND SPILL; SOAK UP SMALL SPILL. ON WATER, MATERIAL INSOLUBLE. CONTAIN/MINIMIZE DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS. WASTE DISPOSAL METHODS CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO POTENTIALLY LOW FLASH POINT (SEE 40 CFR 261 AND 29 CFR 1910). LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULA-TIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

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OFC(R) 1535 PARAFFIN INHIBITOR INTERMEDIATE	
11 - ADDITIONAL PRECAUTIONS	· • • • • • • • • • • • • • • • • • • •
HANDLING AND STORAGE PROCEDURES WHEN NORMAL HANDLING REQUIRES HEATING, DO NOT HEAT HIGHER THAN 50 F FLASH POINT. IF HIGHER TEMPERATURE IS REQUIRED FOR HANDLING, INERTI GAS BLANKETING SHOULD BE CONSIDERED. KEEP CONTAINERS WELL MIXED TO SLUDGE FROM ACCUMULATING ON BOTTOM. ALL MATERIAL SAMPLING SHOULD AN CONTACT. SPECIAL CARE MUST BE TAKEN WHEN TRANSPORTING AND HANDLING DECONTAMINATION PROCEDURES ISOLATE, VENT, DRAIN, WASH, AND PURGE EQUIPMENT BEFORE MAINTENANCE. ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR EXPLOSIVENESS AND OXYGEN DEFICIENCIES. IF ANY RESIDUAL PRODUCT MAY BE PRESENT, TOTAL-ENCAPSU IMPERVIOUS PROTECTIVE SUITS, GLOVES, AND BOOTS SHOULD BE WORN. SEE PROTECTIVE EQUIPMENT SECTION 8 FOR PROPER RESPIRATORY PROTECTION.	BELOW NG OR PREVENT JOID SKIN SAMPLES. REMOVE JLATING
12 - LABEL INFORMATION	·····
USE STATEMENT FOR INDUSTRIAL USE ONLY KEEP OUT OF REACH OF CHILDREN SIGNAL WORD CAUTION PHYSICAL HAZARDS NONE KNOWN HEALTH HAZARDS SEVERE SKIN AND EYE IRRITANT INGESTION HAZARD MUCOUS MEMBRANE IRRITANT SIMILAR MATERIAL INDUCES TUMORS IN LAB ANIMALS PRECAUTIONARY MEASURES DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS. WASH THOROUGHLY AFTER HANDLING. DO NOT TASTE/SWALLOW. DO NOT TAKE INTERNALLY. KEEP CONTAINER CLOSED.	
13 - SUPPLEMENT	
HEALTH HAZARDS - SECTIONS 2 AND 7 CHRONIC HAZARDS REGARDING POTENTIAL CHRONIC HEALTH HAZARDS WHICH MAY RESULT FROM LONG-TERM, REPEATED CONTACT, THIS MATERIAL MAY CONTAIN POLYNUCLEAN AROMATIC HYDROCARBONS (PNA'S). STUDIES HAVE SHOWN THAT THE REPEA PAINTING OF PNA'S ON THE SKIN OF EXPERIMENTAL ANIMALS OVER A SUST PERIOD OF TIME RESULTS IN THE INDUCTION OF TUMORS. INDIVIDUALS S AVOID SKIN CONTACT AND SHOULD WASH AFFECTED AREAS IMMEDIATELY IF CONTACT OCCURS. NOTE QUALIFIERS AND CODES USED IN THIS MSDS EQ = EQUAL AP = APPROXIMATELY LT = LESS THAN GT = GREATER THAN TR = TRACE UK = UNKNOWN N/AP = NOT APPLICABLE N/P = NO APPLICABLE INFORMATIC N/DA = NO DATA AVAILABLE	R TED AINED HOULD
14 - DISCLAIMERS	
SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE	FROM

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MSDS ID: 6-005649

# 14 - DISCLAIMERS (continued)

SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

THIS MSDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE PRODUCT IS USED AS A COMPONENT IN ADJUST PRODUCT, THIS MSDS INFORMATION MAY NOT BE APPLICABLE.

THIS MSDS HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1200).

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_	MATERIAL SAF	ETY DATA SHEET	
MSDS NUMBER: 2590 PART NUMBER: INC 2590 PRODUCT NAME: INC 2590 Paraffin Control Inter CAS NUMBER: – –0 CHEMICAL NAME: Alkylamine Sulfonate	mediate	<u> </u>	,
<b>Weather and the second s</b>	SECT	TON I	
MANUFACTURER: / VENDOR: InterChem, Inc.	╪╾╏┽╪╹ _┇ ╘╢ <mark>╡╌╍╍╹_{╴╴╴}╎╬^{╋╴}╄╼╓</mark> ╠╠┼╄ <mark>┉╼╸╘╎╎╪┸_{┇╴╴╴}┉╖╢_{╋╸╍}</mark>		· · · · ·
ADDRESS: 3803 Mankins Odessa, TX 79763		HMIS RATINGS: HEALTH: 1 FIRE: 1	HEALTH / $\land$ FIRE 1 / $\land$ 1
MERGENCY TELEPHONE NUMBER: (915)550-7027	and for the second s	PERSONAL PROTECTION:	
INFORMATION TELEPHONE NUMBER: (915)550-7027		-	SPEC. HAZ.
DATE PREPARED: 03/15/95	· · · · · · · · · · · · · · · · · · ·	_	$\mathbf{V}$
SECTION			· · ·
SECTION	11 - HAZARDOUS INGR		
CAS NUMBER HAZARDOUS COMPONENT	NTP	IARC PART/Z 313 OSHA PEL ACGIH TLV RECO	MMENDED PERCENT
	TION III - PHYSICAL/	CHEMICAL CHARACTERISTICS	
BOILING POINT	NI	SPECIFIC GRAVITY (H2O = 1)	1.02000
APOR PRESSURE (mm Hg.)	< 1	MELTING POINT	NI
APOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI
OLUBILITY IN WATER: Soluble at 60° F.			
APPEARANCE AND ODOR: Light Amber Liquid, Mild	Odor.		
DTHER INFORMATION: /iscosity Units > 100 pH = 4.5 - 5.5 Freezing Point = NI Dry Point = NI			
Density (Lb./Gal.) = 8.497			
DANGER			
Physical Hazards:~ Mildly corrosive to Metals			· .
Physical Hazards:- Mildly corrosive to Metals Heneric Name:- Cleaning Compound			
Physical Hazards:- Mildly corrosive to Metals Generic Name:- Cleaning Compound UN/NA Number:- DOT NOT REGULATED			
Physical Hazards:- Mildly corrosive to Metals Generic Name:- Cleaning Compound JN/NA Number:- DOT NOT REGULATED DOT Response Number:- N/App.			
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Physical Hazards:- Mildly corrosive to Metals eneric Name:- Cleaning Compound N/NA Number:- DOT NOT REGULATED OT Response Number:- N/App. OT Proper Shipping Name:- DOT NOT REGULATED OT Hazard Class:- N/App. OT Packing Group:- N/App. OT/CERCLA RQ:- N/App. This product does not contain any chemicals mmendments and Reauthorization Act of 1986.	subject to the repor	rting requirements of Section 313 of Title	III of the Superfund
Physical Hazards:- Mildly corrosive to Metals Generic Name:- Cleaning Compound JN/NA Number:- DOT NOT REGULATED NOT Response Number:- N/App. NOT Proper Shipping Name:- DOT NOT REGULATED NOT Proper Shipping Name:- DOT NOT REGULATED NOT Packing Group:- N/App. NOT/CERCLA RQ:- N/App. This product does not contain any chemicals mmendments and Reauthorization Act of 1986. St	subject to the repor ECTION IV - FIRE AND	rting requirements of Section 313 of Title	III of the Superfund

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Water Spray Water Fog Foam Sand/Earth

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MSDS NUMBER: 2590 Page: 2 PRODUCT NAME: INC 2590 Paraffin Control Intermediate SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued) SPECIAL FIRE FIGHTING PROCEDURES: 🎇 🗛 not enter fire area without proper protection — see section V — decomposition products possible. Fight fire from safe distance / protected location. Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries. Use water spray / fog for cooling. Notify authorities if liquid enters sewer / public waters. UNUSUAL FIRE FIGHTING PROCEDURES: None. SECTION V - REACTIVITY DATA STABLI ITY. Stable under normal conditions. INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Strong Alkalies. HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxide, carbon dioxide, and oxides and/or compounds of nitrogen and sulfur. HAZARDOUS POLYMERIZATION: Not expected to occurr. SECTION VI - HEALTH HAZARD DATA ROUTE(S) OF ENTRY: Inhalation:-No appropriate human or animal health effects data are known to exist. Eye contact:- Primary Route Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation. Skin absorption:~ No appropriate human or animal health effects data are known to exist. Skin irritation:-Although no appropriate human or animal health effects data are known to exist, this material is expected to cause skin irritation. 'Indestion:-No appropriate human or animal health effects data are known to exist. HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) -Irritant to Eyes. Irritant to Skin. No data on Ingestion Found. No-data on Inhalation Found. No data on Skin Absorption Found. SIGNS AND SYMPTOMS OF EXPOSURE: NI MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI **EMERGENCY AND FIRST AID PROCEDURES:** Inhalation:-If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential. Eye Contact:-In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention. Skin Contact:-Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention. Indestion:-If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as

## MSDS NUMBER: 2590 Page: 3 PRODUCT NAME: INC 2590 Paraffin Control Intermediate SECTION VI - HEALTH HAZARD DATA (Continued) risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended. Emergency Medical Treatment Procedures:-Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommended. OTHER HEALTH WARNINGS. NI SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood. LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers. Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured. WASTE DISPOSAL METHOD: Comply with Federal / State / Local regulations for disposal. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel. All hazard precautions given in the data sheet must be observed. OTHER PRECAUTIONS: NI SECTION VIII - CONTROL MEASURES VENTILATION REQUIREMENTS. Either local exhaust or general room ventilation is usually sufficient. PERSONAL PROTECTIVE EQUIPMENT: Respiratory Protection:-If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard. Eve Protection:-Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn. Skin Protection:~ Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use. Other Hygenic Practices:-Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water. Other Work Practices:-Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse. SECTION IX - ADDITIONAL INFORMATION ADDITIONAL MANUFACTURER WARNINGS: NI OTHER PRECAUTIONS AND COMMENTS: Disclaimers:-Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this ISDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

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INTERCHEM, INC. P.O. BOX 13166 ODESSA, TX 79768 (915) 550-7027

# MATERIAL SAFETY DATA SHEET

PRODUCT TRADE NAME: INC-2525

CAS NO: Confidential. SYNONYMS: None. GENERIC/CHEMICAL NAME: Alkyl phenol PRODUCT TYPE: Refinery Process Products. PREPARATION/REVISION DATE: TRANSPORTATION EMERGENCY PH NO NFPA CODE: Health: 2 Fire: 3 Reactivity: 0 HMIS CODE: Health: 2 * Fire: 3 Reactivity: 0 PRINCIPAL HAZARDS: DANGER - FLAMMABLE LIQUID. MAY CREATE A FLASH FIRE HAZARD. - HARMFUL IF INHALED. - CAUSES EYE IRRITATION. - CAUSES RESPIRATORY TRACT IRRITATION. - MAY BE HARMFUL IF ABSORBED THROUGH SKIN. - MAY CAUSE SKIN IRRITATION. - MAY CAUSE CHRONIC HEALTH EFFECTS. BASED ON DATA WITH LABORATORY ANIMALS.

SECTION 1 - HAZARDOUS INGREDIENTS

- From 40 to 50 percent Alkyl phenol; - 41.5 percent Xylene, CAS no: 1330-20-7; DSHA PEL: 435.00 mg/ cu M., 100.00 ppm; OSHA STEL: 655.00 mg/ cu M., 150.00 ppm ACGIH TLV:435.00 mg/ cu M., 100.00 ppm; ACGIH TLV STEL: 655.00 mg/ cu M., 150.00 ppm; - 12.0 percent Ethylbenzene, CAS no: 100-41-4; OSHA PEL: 100.00 ppm; OSHA STEL: 125.00 ppm ACGIH TLV: 435.00 mg/ cu M., 100.00 ppm; ACGIH TLV STEL: 545.00 mg/ cu M., 125.00 ppm;

SECTION 2 - FIRE AND EXPLOSION HAZARDS.

rupture on heating.

FLASH POINT (Typical):35 Deg C 95 Deg F (PMCC)UPPER FLAMMABLE LIMIT:Not Determined.LOWER FLAMMABLE LIMIT:Not Determined.EXTINGUISHING MEDIA:CO2, dry chemical, alcohol foam. Water can<br/>be used to cool and protect exposed material.SPECIAL FIREFIGHTING PROCEDURES:Recommend wearing self-contained breathing<br/>apparatus. Water may cause splattering.UNUSUAL FIRE & EXPLOSION HAZARDS:Toxic fumes, gases or vapors may evolve on<br/>burning.VApors may be heavier than air and may travel along the<br/>ground to a distant ignition source and flash back.

SECTION 3 - HEALTH HAZARD DATA

-- ACUTE EXPOSURE --

ORAL TOXICITY: The LD50 in rats is > 5000 mg/Kg. Based on actual data. Ingestion of this material may cause headache, dizziness, uncoordination, and general weakness.

EYE IRRITATION: Eye irritant. Based on actual data.

Based on actual data.

SKIN IRRITATION: May cause skin irritation. Based on actual DERMAL TOXICITY: The LD50 in rabbits is > 2000 mg/Kg. Based on similar materials. Components of this material may be absorbed through the skin.

INHALATION TOXICITY: High concentrations may cause headaches, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, other central nervous system effects leading to visual impairment, respiratory failure, unconsciousness and death.

Nose, throat and lung irritant. Based on data from RESPIRATORY IRRITATION: components or similar materials.

DERMAL SENSITIZATION: No data available to indicate product or components may be a skin sensitizer.

INHALATION SENSITIZATION: No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

CHRONIC TOXICITY:

Xylene has been found to cause cardiac, liver and kidney effects, anemia and eye damage in laboratory animals. Prolonged and repeated inhalation of hydrocarbon solvents such as xylene can cause chronic neurological disturbances.

No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.

No data available to indicate product or any components

are mutagenic

or

CARCINOGENICITY:

MUTAGENICITY:

genotoxic.

REPRODUCTIVE TOXICITY: data available to indicate either product or No components present at greater than 0.1% that may cause reproductive toxicity.

present at greater than 0.1%

TERATOGENICITY: No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

-- ADDITIONAL INFORMATION --

OTHER:	No other health hazards known.			
EXPOSURE LIMITS:	See Hazardous Ingredients Section	for	any	applicable
	exposure limits for components.		-	

TNC-2525

SECTION 3A - EMERGENCY FIRST AID PROCEDURES

SKIN:	Wash with soap and water. Immediately remove contaminated
	clothing. Get medical attention if irritation develops. Launder
	contaminated clothing before reuse.
EYE:	Flush immediately with water for at least 15 minutes. Get
	immediate medical attention.
INHALATIO	N: Remove exposed person to fresh air if adverse effects are
	observed. If breathing is labored, administer oxygen. If breathing
	has stopped, apply artificial respiration. If irritation persists or
	if toxic symptoms are observed, yet medical attention.
ORAL:	DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water.
	Get immediate medical attention.
ADDITIONA	L: Note to physician: Treat symptomatically.
SECTION 4	- SPECIAL PROTECTION INFORMATION

VENTILATION PROCEDURE: Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits. Use explosion proof equipment.

GLOVES PROTECTION: Viton. Teflon. Polyvinyl alcohol. Note: polyvinyl alcohol gloves are water soluble and should not be used when there is potential for water contact.

EYE PROTECTION: Chemical goggles or faceshield.

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved full face respirator with a combination organic vapor and high efficiency filter cartridge if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

CLOTHING RECOMMENDATION: Long sleeve shirt is recommended. Wear a chemically protective apron when contact with material may occur. Use neoprene or nitrile rubber boots when necessary to avoid contaminating shoes. Launder contaminated clothing before reuse.

SECTION 5 - PHYSICAL DATA

VAPOR PRESSURE:	Not Determined.
PH:	Not Determined.
SPECIFIC GRAVITY:	0.89 at 15.6 Deg C
WATER SOLUBILITY:	Insoluble.
PERCENT VOLATILE:	Unknown.
VAPOR DENSITY:	Not Determined.
EVAPORATION RATE:	Not Determined.
ODOR:	Mild
APPEARANCE :	Dark liquid
VISCOSITY:	28 Centistokes at 40 Deg C
	9 Centistokes at 100 Deg C
ODOR THRESHOLD:	Unknown.

# SECTION 6 - STABILITY

STABILITY:Material is normally stable at moderately elevated<br/>temperatures and pressures.INCOMPATIBILITY:Oxidizing agents.POLYMERIZATION:Will not occur.THERMAL DECOMPOSITION:Smoke, carbon monoxide, aldehydes and other products of<br/>incomplete combustion.

# SECTION 7 - SPILL OR LEAK PROCEDURES

- SPILL PROCEDURES: May form explosive mixtures with air. Immediately evacuate all personnel from danger area. Personal Protective Equipment must be worn, see Special Protection Information Section for PPE recommendations. Eliminate all sources of heat, sparks pilot lights, static electricity and open flames. Ventilate spill area. Prevent entry into sewers and waterways. Pick up free liquid for recycle and/or disposal if can be accomplished safely with explosion proof equipment. Residual liquid can be absorbed on inert material. Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine regulatory reporting requirements for spills.
- WASTE DISPOSAL: Material, if discarded, is expected to be hazardous waste under RCRA due to ignitability and toxicity. Consider U.S. EPA RCRA Hazardous Waste Number D001 and its associated treatment standard. If discarding this material, consider the possible relevance of the presence of the following chemicals and the treatment standards for the associated U.S. EPA RCRA Hazardous Waste Numbers: 42% Xylene, Cas no: 1330-20-7, F003. 12% Ethyl benzene, Cas no: 100-41-4, F003. 0.005% Benzene, Cas no: 71-43-2, D018.

SECTION 8 - SPECIAL PRECAUTIONS

- HANDLING PROCEDURES: Keep material away from heat, sparks, pilot lights, static electricity and open flame. Open container in a well ventilated area. Avoid breathing vapors. Keep containers closed when not in use. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition. STORAGE PROCEDURES: Do not store near potential sources of ignition.
  - Isolated outside storage is preferred. Inside storage area should be in a flammable liquids cabinet or storage area.

SECTION 9 - TRANSPORTATION AND LABELING

U.S.DOT BULK SHIPPING DESCRIPTION: Flammable Liquids, NOS (Contains Ethylbenzene, Xylene), Class 3, UN1993, PG III ,RO U.S.DOT NON-BULK SHIPPING DESCRIPTIÓN: Flammable Liquids, NOS (Contains Ethylbenzene, Xylene), Class 3, UN1993, PG III IMDG SHIPPING DESCRIPTION: Flammable Liquids, NOS (Contains Ethylbenzene, Xylene), Class 3.3, UN1993, PG III ICAO SHIPPING DESCRIPTION: Flammable Liquids, NOS (Contains Ethylbenzene, Xylene), Class 3, UN1993, PG III ADR/RID HAZARD CLASS: 3 ITEM NUMBER: 31(c) CERCLA HAZARDOUS SUBSTANCES: FOR SOURCES IN TRANSIT: Product RQ 323 gal. due to Xylene Product RQ 1118 gal. due to Ethylbenzene FOR STATIONARY SOURCES: Product RQ 323 gal. due to Xylene Product RQ 1118 gal. due to Ethylbenzene Product RQ 26826 gal. due to Benzene Product RQ 33533 gal. due to Toluene PRECAUTIONARY LABELS: DANGER - FLAMMABLE LIQUID. MAY CREATE A FLASH FIRE HAZARD. - HARMFUL IF INHALED. - CAUSES EYE IRRITATION. - CAUSES RESPIRATORY TRACT IRRITATION. - MAY BE HARMFUL IF ABSORBED THROUGH SKIN. - MAY CAUSE SKIN IRRITATION.

- MAY CAUSE CHRONIC HEALTH EFFECTS. BASED ON DATA WITH LABORATORY ANIMALS.

SECTION 10 - OTHER REGULATORY INFORMATION

All components of this material are on the US TSCA U.S. TSCA INVENTORY: Inventory. OTHER TSCA REG. : Section 8d, 8a (Ethylbenzene). Section 8d, 8a (Toluene). Section 8a (Xylene). EEC EINECS: All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC. JAPAN MITI: All components have MITI and MOL numbers in Japan. with compliance chemical AUSTRALIA: All components are in notification requirements in Australia. All components are in compliance with the Canadian CANADA:~ Environmental Protection Act. AUSTRIA: All components are in compliance with the Austrian Chemical Laws. SWITZERLAND: components in compliance with the A11 are Environmentally Hazardous Substances Ordinance in Switzerland. SARA EXT. HAZ. SUBST.: This product does not contain greater than 1.0% of chemical substance on the SARA Extremely any Hazardous Substances list. SARA SECTION 313: 12.0% Ethylbenzene, CAS no.: 100-41-4 41.5% Xylene, CAS no.: 1330-20-7 CAL. PROP. 65: This product may contain the following chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components: 50 ppm Benzene, CAS no.: 71-43-2 0.4% Toluene, CAS no.: 108-88-3

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of InterChem, Inc.'s knowledge; however, InterChem, Inc. makes no warranty whatsoever, expressed or implied, of MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE, regarding the accuracy of such data or the results to be obtained from the use thereof. InterChem, Inc. assumes no responsibility for the injury to recipient or to third persons or for any damage to any property and recipient assumes all such risks.

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	MATERIAL SAF	ETY DATA SHEET	····			
MSDS NUMBER: 25/1 PART-NUMBER:-INC-2571 PRODUCT NAME: INC 2571 Paraffin Solvent / Disp CAS NUMBER:0	ersant	•		<b>`</b>	,	
CHEMICAL NAME: Mixture of Surfactants		Ň				· · · · · · · · · · · · · · · · · · ·
	SECT	ION I		•	•	· •
MANUFACTURER: / VENDOR: InterChem, Inc.						
ADDRESS: 3803 Mankins Odessa, TX 79763		- HMIS RATINGS:	HEALTH: 2 FIRE: 4 REACTIVITY: 0	ł	EALTH 7	FIRE
EMERGENCY TELEPHONE NUMBER: (915)550-7027		PERSON	AL PROTECTION:			
INFORMATION TELEPHONE NUMBER: (915)550-7027		_		SPE	. HAZ.	REACT.
DATE PREPARED: 03/01/94		-				
SECTION	II - HAZARDOUS ING	EDIENTS/IDENTITY INF	ORMATION			<u> </u>
CAS NUMBER HAZARDOUS COMPONENT	NTP	SUB- SARA IARC PART/Z 313 OSH	A PEL ACGIH TLV	OTHER LIM RECOMMEND	ITS ED PERCENT	•
138-86-3 Terpenes 8030-30-6 Naphtha, solvent	??	???NI ????	NI 00 NI		15-20% 30-35%	 
SECT	ION III - PHYSICAL	CHEMICAL CHARACTERIS	TICS		· · ·	
BOILING POINT	180 ºF.	SPECIFIC GRAVITY (	H20 = 1)		0.92300	) · ·
VAPOR PRESSURE (mm Hg.)	12.4	MELTING POINT	<u> </u>		ИІ	· · · ·
VAPOR DENSITY (AIR = 1)	2.1	EVAPORATION RATE (	Butyl Acetate = 1	) )	Appreci	
SOLUBILITY-IN-WATER:-Dispersible-at-60º-F.	· · · · · · ·	· · · · · · · · · · · · · · · · · · ·				
APPEARANCE AND ODOR: Amber Liquid, Aromatic Od	ог				· .	
_OTHER_INFORMATION: Viscosity Units = N/A pH = N/A <u>Freezing</u> Point < 10° F. Dry Point = Unknow	n .					
Density (Lb./Gal.) = 7.691					۰.	
DANGER Physical Hazards:- Flammable Liquid						
Generic Name:- Mixture of Surfactants, Isopropa	nol, Terpenes					
UN/NA Number:- UN 1993						
DOT Response Number:- 27				÷.		
DOT Proper Shipping Name:- FLAMMABLE LIQUID, n	.0.5.					
DOT Hazard Class:- 3						
POT/Packing Group:- 11			···· · · ·			
DOT/CERCLA RQ:- N/App.						
MTMLet contains no SARA Section 313 List	ed Chemicals				· .	
SE	CTION IV - FIRE AND	EXPLOSION HAZARD DA	ТА			ing all optimized
FLASH POINT: 72 º F.		FLAMMABLE LIMITS:	LEL: 2 %	UEL: 12	%	
EXTINGUISHING MEDIA:		l <u></u>		<u> </u>	· · · · · · · · · · · · · · · · · · ·	
Dry Chemical CO2 Water Spray Water Fog			· ·	•		
			- <u></u>	<u></u>	·. ·.	

1SDS NUMBER: 2571 PRODUCT NAME: INC 2571 Paraffin Solvent / Dispersant	·	Page: 2
SECTION IV - FIRE AND EXPL	LOSION HAZARD DATA (Continued)	
SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see sectior	n V – decomposition products possibl	.e.
Fight fire from safe distance / protected location.		
Heat may build pressure / rupture closed containers, spreading	g fire, increasing risk of burns / i	injuries.
Use water spray / fog for cooling.		
Notify authorities if liquid enters sewer / public waters.		
UNUSUAL FIRE FIGHTING PROCEDURES: Releases vapors at normal ambient temperatures. When mixed wi explode if confined. Flammable vapors may be heavier than air. back to vapor source. Diluting with water may not suffice to ra	ith air and exposed to ignition sour May travel long distances along th aise flash point above ambient tempe	rce, vapors can burn in open or ne ground before igniting/flashi eratures.
SECTION V -	REACTIVITY DATA	
STABILITY: Stable under normal conditions.		
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, a Strong Alkalies.	and Chromic Acid.	
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxide ar	nd oxides and/or compounds of nitrog	gen and sulfur.
HAZARDOUS POLYMERIZATION: Not expected to occur.		
SECTION VI - I	HEALTH HAZARD DATA	
ROUTE(S) OF ENTRY: Inhalation:- Although no appropriate human or animal health effects data a hazard.	re known to exist, this material is	expected to be an inhalation
Eye contact:- Primary Route Although no appropriate human or animal health effects data a irritation.	re known to exist, this material is	expected to cause severe eye
Skin absorption:- Exposure to a small quantity of this material can result in r hazard.	apid absorption through the skin, c	ausing a significant health
Skin irritation:- Although no appropriate human or animal health effects data a irritant.	re known to exist, this material is	expected to be a severe skin
Ingestion:- No data available. Ingestion of this material may result in a	spiration into the lungs causing ch	emical pneumonia.
HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Irritant to Eyes. Irritant to Skin. Irritant to nasal passages. Severe Ingestion Hazard. Will rapidly absorb through the skin causing significant heal	th hazard.	
SIGNS AND SYMPTOMS OF EXPOSURE: Skin Contact:- Irritation or redness of the skin may develop after exposure.	· · · ·	
yé Contact:- Severe…eye:irritation.may…develop on exposure.	·* · · · · · · · · · · · · · · · · ·	
Ingestion:- Severe irritation and burning of the linings of the mouth, th	roat, and stomach may develop.	
Severe irritation and burning of the linings of the mouth, the	roat, and stomach may develop.	

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1SDS NUMBER: 2571 PRODUCT NAME: INC 2571 Paraffin Solvent / Dispersant

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SECTION VI - HEALTH HAZARD DATA (Continued)	
1EDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI	· · ·
IMERGENCY AND FIRST AID PROCEDURES:	
If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artific emergency medical attention. Prompt action is essential.	cial respiration as needed. Obtain
Eye Contact:- In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retrac sttention.	ct eyelids often. Obtain emergency medical
Skin Contact:- Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.	•. Flush with lukewarm water for 15 [.] N
Ingestion:~ If large quantity swallowed, give lukewarm water (pint) if victim is completely consciour risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gast	us and alert. Do not induce vomiting, as tric lavage recommended.
Emergency Medical Treatment Procedures:- Remove affected clothing and wash all exposed skin area with mild soap and water, follow eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmold Treat burns or allergic reactions conventionally after decontamination. Do not induce of Vigorous anti-inflammatory/steroid treatment may be required at first evidence of pulmon	wed by warm water rinse. Continue to rinse ogist immediately. vomiting. Gastric Lavage recommended. nary/upper airway edema.
OTHER HEALTH WARNINGS: The toxicological and carcinogenic properties of this material have not been fully inves contact.	stigated. Handle accordingly, avoiding
SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND U	SE
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liqu or other absorbent material, and transfer to hood.	id on paper, vermiculite, floor absorbent,
LARGE SPILL: - EXTREMELY FLAMMABLE LIQUID. Eliminate all ignition sources (flares, flame, sparks). Persons not wearing protective equipment should be excluded from area of spill spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. R clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.	s including pilot lights, electrical until clean-up has been completed. Stop, emaining liquid may be taken up on sand,
Prevent run-off into sewers, streams or other bodies of water. On water, may biodegrade authorities as required, that a spill has occured.	. If run-off occurs, notify proper
WASTE DISPOSAL METHOD: Contaminated product/soil/water may be RCRA/OSHA hazardous waste due to potentially low 1910). Waste may be designated DOO1 under RCRA listing due to presence of Isopropyl Alco Use registered transporters. Burn concentrated liquids, Avoid flameouts. Assure emissi Dilute Aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure regulations.	flash point (see 40 CFR 261 and 29 CFR hol. Landfill solids at permitted sites. ons comply with applicable regulations. effluent complies with applicable
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: For transport, handling, and storage, use polyethylene, plastic, lined steel or stainle Containers of this material may be hazardous when emptied, since emptied containers ret solid), all hazard precautions given in the data sheet must be observed.	ss steel. ain product residues (vapor, liquid, and/or
OTHER PRECAUTIONS: Wash-Thoroughly-after handling. Do not get it eyes, on skin, or clothing. Do-not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.	
SECTION VIII - CONTROL MEASURES	
VENTILATION REQUIREMENTS:	
PERSONAL PROTECTIVE EQUIPMENT:	
Respiratory Protection:- LI1 exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or suppli pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.	ied air respirator operated in a positive
Eve Protection:-	n possibility exists for eye contact due
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	PRODUCT NAME: INC 2571 Paraffin Solvent / Dispersant	
۰	SECTION VIII - CONTROL HEASURES (Continued)	
	"to_spreying_Liquid_or_aicborne_particles. Contact lenses must not be worn."	
· · · · · · · · · · · · · · · · · · ·	Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned 'thoroughly after each use.	• *
· · · · · · · · · · · · · · · · · · ·	Other Hygenic Practices:- Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.	•
	Other Work Practices:- Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.1	:
	SECTION IX - ADDITIONAL INFORMATION	· .
·····	ADDITIONAL MANUFACTURER WARNINGS: EXTREMELY FLAMMABLE. High Skin Contact Hazard. May cause long-term adverse health effects. Skin contact penetrant. Hucous membrane irritant. High ingestion hazard - Chemical pneumonia. Severe eye irritant.	· · · · · · · · · · · · · · · · · · ·
•••	Isopropanol has been reported in one animal study to be fetotoxic at levels of 2.5% in drinking water. No teratogenic effects a ware, or have been, reported. There are no reports of adverse reproductive effects in humans exposed to this chemical.	· ·
	OTHER PRECAUTIONS AND COMMENTS: Disclaimers:- Some of the information presented and conclusions drawn herein are from sources other than direct teat data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).I	
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-	MATERIAL SA	FETY DATA SHEFT	· · · ·
MSDS NUMBER: 1478 PART NUMBER: INC 1478 PRODUCT NAME: INC 1478 Corrosion Inhibitor Int CAS NUMBER: 61790-69-0 CHEMICAL NAME: Alkyl Imidazoline	ermediate		
	SEC	TION I	
MANUFACTURER: / VENDOR: InterChem, Inc.		HMIS RATINGS.	/\
ADDRESS: 3803 Mankins Odessa, TX 79763		HEALTH: 2 FIRE: 4 REACTIVITY: 0	HEALTH / \ FIRE 2 / \ 4 / \ \
EMERGENCY TELEPHONE NUMBER: (915)550-7027		PERSONAL PROTECTION:	Corr \ /0
INFORMATION TELEPHONE NUMBER: (915)550-7027			SPEC. HAZ.\ / REACT.
DATE PREPARED: 08/01/94			••
SECTION	II - HAZARDOUS ING	REDIENTS/IDENTITY INFORMATION	<u> </u>
		SUB- SARA OTHE	R LIMITS
CAS NUMBER HAZARDOUS COMPONENT	NTP	IARC PART/Z 313 OSHA PEL ACGIH TLV RECO	PRCENT
61790-69-0 Alkyl Imidazoline 110-80-5 Cellosolve	? ?	? ? N NI NI ? ? N NI NI	Propriet. Propriet.
SECT	10N III - PHYSICAL	/CHEMICAL CHARACTERISTICS	
BOILING POINT	App 200 F.	SPECIFIC GRAVITY (H2O = 1)	0.91160
VAPOR PRESSURE (mm Hg.)	App. 1	MELTING POINT	NI .
VAPOR DENSITY (AIR = 1)	3.2-3.7	EVAPORATION RATE (Butyl Acetate = 1)	NI
STHER INFORMATION:       Viscosity Units = NI       pH = 9.0 - 10.0       Freezing Point = NI       Dry Point = NI			· ·.
DENSITY (LD./Gal.) = 7.594 DANGER Physical Hazards:- Flammable Liquid Corrosive to Metals		· .	
Seneric Name:- Alkyl Imidazoline 1975 UN/NA Number:- UN 2733		· · · · · · · · · · · · · · · · · · ·	
DOT Response Number:- 29 DOT Proper Shipping Name:- Alkylamines, n.o.s.	flammable, corros	: ve	د ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰
OT Hazard Class:- 3			·····
OT Packing Group:- 111			· · ·
OT/CERCLA RQ:- N/App			· .
	ubject to the repo	rting requirements-of-Section-313-of-Title-	III_of_the_Superfund
SEC SEC	TION IV - FIRE AND	EXPLOSION HAZARD DATA	
LASH POINT: 150 PF.		FLAMMABLE LIMITS: LEL: App 1 UE	_: App 7
XTINGUISHING MEDIA: Dry Chemical		1 <u>, , , , , , , , , , , , , , , , , , , </u>	

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MSDŚ NUMBER: 1478 PRODUCT NAME: INC 1478 Corrosion Inhibitor Intermediate

SECTION IV FIRE AND EXPLOSION HAZARD DATA (Co ntinued)

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Section IV - FIRE AND EXPENSION HAZARD DATA COM	e maeu y	
Water Spray Water Fog		
SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see section V - decomposition proc	ducts possible.	, .
• Fight fire from safe distance / protected location.		
Heat may build pressure / rupture closed containers, spreading fire, increasing risk	of burns / injuries.	,
Use water spray / fog for cooling.		· · ·
Notify authorities if liquid enters sewer / public waters.		· · · ·
UNUSUAL FIRE FIGHTING PROCEDURES: Releases vapors at normal ambient temperatures. When mixed with air and exposed to i explode if confined. Flammable vapors may be heavier than air. May travel long distar back to vapor source. Diluting with water may not suffice to raise flash point above a	ignition source, vapors can nees along the ground befor ambient temperatures.	burn in open or e igniting/flashing
SECTION V - REACTIVITY DATA		
STABILITY: Stable under normal conditions.		
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Stronk Alkalies.		
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxide and oxides and/or compour	nds of nitrogen.	·
HAZARDOUS POLYMERIZATION: Not expected to occur.		
SECTION VI - HEALTH HAZARD DATA		·····
Inhalation:- Although no appropriate human or animal health effects data are known to exist, this hazard. Eye-contact:- Primary Route	material is expected to be	an inhalation
Although no appropriate human or animal health effects data are known to exist, this	material is expected to ca	use eye irritation.
-Skin-absorption:- Although no appropriate human or animal health effects data are known to exist, this skin.	product is expected to abs	orb through the
Skin irritation:- Although no appropriate human or animal health effects data are known to exist, this	material is expected to be	a skin irritant.
Ingestion:- Although no appropriate human or animal health effects data are known to exist, this hazard.	material is expected to be	an ingestion
HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Corrosive to Eyes. Corrosive to Skin. Moderate Ingestion Hazard.		
Moderate Inhalation Hazard. Moderate Skin Absorption Hazard.		· · · ·
SIGNS AND SYMPTOMS OF EXPOSURE: Skin Contact:-		· · · · · · · · · · · · · · · · · · ·
Eye Contact:-		
Ingestion:-	velop.	
Inhalation:-		N.

Page: 2

MSDS NUMBER: 1478

PRODUCT NAME: INC 1478 Corrosion Inhibitor Intermediate

SECTION VI - HEALTH HAZARD DATA (Continued)

Page: 3

Coughing and shortness of breath may result. More severe symptoms are also possible.

### MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

This material or its emissions may affect the central nervous system and/or aggravate pre-existing disorders. Prolonged observation may be indicated.

#### EMERGENCY AND FIRST AID PROCEDURES:

.Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

#### Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract eyeLids often. Obtain emergency medical attention.

Skin Contact:-

---Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.

#### Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Administer an aqueous slurry of activated charcoal followed by a cathartic such as magnesium citrate or sorbitol.

#### OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill_has_occured.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel. Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

#### OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

### VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

# PERSONAL PROTECTIVE EQUIPMENT:

#### Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

#### Eye Protection:~

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due

### MSD@ NULLER: 1478

SECTION VIII - CONTROL MEASURES (Continued)

to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

#### Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

### ADDITIONAL MANUFACTURER WARNINGS:

For industrial use only.

Keep out of reach of children.

Failure to use caution may cause serious injury or illness. Never siphon by mouth.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

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), .	· · · ·	- · ·	P.O. Box 13166 3803 Mankins		REPORTATION - CHEMT	ALC NEPA 704 HAZARD RATING 4. Extreme	HEALTH 2	· · ·		<u>`</u>
•	INI	ERCHEM, INC.	0dessa, Tx 79768 79763		15)550-702	7 1. = Slight 0 = Minimal	. 2	•••		· ·
······································			· · · · · · · · · · · · · · · · · · ·	Ś.	*24hour*	卒々 Chronic Health Hazari 「SEE'SECT'A)	0	7-26-93	REVISED	•
	- 1	PRODUCT NAME IL ABELI	6700		CHEMICA	AL FAMILY				
!	L SU	CHENICAL NAME SYNON	71.100 F			udzo, Line III.	<u>xLu.e</u>			
	DEND	Inidazoline	mixture		TOAMULA	4			ICARC .	
		Mixture	All listed		Mi	xture		• •	REFE	LILL
	5	CAS NO.	COMPONENTS			Subject to SARA Section 313 Reporting	%	ACGIH TLV PPM or *	OSHA PEL mg/M ³	
	EDIENT	61790-69-0	Alkyl Imidazoline	e		NO	85-90	NA	NA	
	IS INCR	64242-94-5	Heavy Aromatic S	olvent		NO	10-15	NA	NA	
	ROOL								•	:
	HAZA									
	JHG A L	Alkylamines	, nos, (imidazolin	e), -87 1	1993 UN2735, PG	III	001 HA	ZAND CLASSIFIC	ATION .	
	SHIPP BAT	4000000	11: ++- 2.7					······································	• •	
	4	INITIAL FOILING LOINT	MELTIN	O/FRELZING P	UINT POUR POINT	MOLECULA	AWEIGHT	SPECIAIC OF	AVITY IH20 =	• • • •
(	TIES	C ND .	F @ mmHq	•c ND	*F C	ND *F M	IXTURE	0.92	Q 77	•F
	HYSI	⇔ ND •c	ND	Nil		Nil		N.D.		
	<u>م</u>	Amber liquid	-with-aromatic_odd	or		fina i an afan marinag mga nga	• • • • • • • • • • • • • • • • • • • •		· · · ·	
	5	PLASH PUINT	TEST METHOD FLAMM	ABLE LIMITS I	AUTOT	GNITION TEMPERATUR		DOT EME	GENCY QUIDE	ENC
	YIN	ENTINGUISHING MEDIA			* By vol.		•• ••*••••	60		
	AND N D/	Combustible	or spray X CU2 X Ch	ensical F	osm X Fasn	n ormud		· .		
	FIRE	Wear usual fire	protective clothing and	l self cont	lained breathi	ing apparatus i	n emergei	ncies.		•
	.∵©	UNUSUAL FIRE AND EXPLO	DSION HAZARDS			······································	•			
	6		LIQUIO	C TO INSTABIL	LIT <u>*</u>	······			• •	-
			able hermal decomposition	degradation	Polymerizati	on Conteminat	ian	· · · · · · · · · · · · · · · · · · ·		
,		Will Not May Urcur Occur	Strung Strong	Strong	1 1 1 .			••••		•
		HAZANDOUS DECOMPOSITIO	ON PRODUCTS - THERMAL AND OT	THER ILISTS		· · · · · · · · · · · · ·	· · · ·	•		
		CONDITIONS TO AVOID	*	150 •		·····	•			
	7	TEPS TO BE TAKEN IF MATE	ERIAL IS RELEASED ON SPILLED		Absorb with sand	· 	, , , , , , , , , , , , , , , , , , ,			
		X Keep upwind	X contact	aler X	or inert material	Neutralize	X our	nd remove .	of spill	
2	۳×۱								t it gester	:
- 3	<u></u>	WASTE DISPOSAL .	<ul> <li>Consult federal, state, al disposal procedures.</li> </ul>	nd local au	thorities for pro	per	UNDER CERCLA	ALPOA	TABLE QUANT	rit'i
<u> </u>	·	Under RCRA, it is the t	esponsibility of the user to de	termino, at t	he time of dispose	al,	(SUPERFUND)		NA Por	Unc
· 1	·	month, hound, woott.	nuna criteria for flatardous i	N 4318,				CONT	NUED ON	

• .

	<u> </u>	, BI	DERMAL ISKINI			·
£1			LD ₅₀ not determined for m	ixture. HAS>	5.0 ml/kg (rabbit)	
	ļ		NOT DETERMINED		۱. 	אעבעיר
.		-	I.C ₅₀ not determined for m	ixture. HAS >	580ppm/4 hr. (rat)	
	LUIX		DHAL LD50 not determined for m	ixture. HAS l	3.3 ml/kg (rat)	•. •
	, cr	-	отнея Toxicity data not availab. (HAS) may create cancer r.	le for blend. isk.	Avoid contact with hea	ivy aronatic solvent
			· · · · · · ·		. <u>.</u>	
		91	May cause institution, dem	watitis, defat	ing.	
		Ergos	Ye May cause severe irritatio	on possible co	.neal damage.	
	HOI	1010	NHALATION Can produce nose, throat,	& respiratory	irritation & CNS depre	ession.
	RMAT	Effect	NGESTION May cause voniting	, aspiration of	Vanitus into lungs.	Must be avoided as
	INFU	10 1	even s mall anounts may re	<u>sult in asuir</u>	ition and pneumonitis.	
	AZAR		Wash with soap and water.	Seek medical	attention if indicated	
-	IEALTH H.	First Aid	YE CONTACT Immediately flush with water for at reast 15 minutes! Contact lenses should be removed if the initial flush deen't wash them out	Get medical attention		
		nergency =	NHALATION Remove to II not breathing, fresh air give artificial respiration	Give oxygen X	Get medical attention, if indicated	
	-	- -	VGESTION INEVER GIVE ANYTHING BY MOUT Do not induce Induce Give vomiting vomiting of w	H TO AN UNCONSCIOUS planty Get medic. ater X attention IMME	PERSON) If vanitting oc "head below hips DIATELY	curs spontaneously ke to prevent aspiratio
		11 н	ANDS IGLOVE MATERIALS TO MINIMIZE CHE Naopiene	MICAL CONTACTI Buiyi Poly rubber alco	rvinyl Polyvinyl hol Chlorida	
	01133	E E	YE · Chemical splash goggles or fac	e shield	,	
	TORY	V	NTILATION REQUIREMENTS - Alweys mointon	n exposure below permissib	le exposure limits	
	CIAL	AE	SPIRATOR TYPE - For reducing contaminant cor	contration in inhated air		***************************************
	SPE		fume, mist X gas of values			
757 (* 137	· • • • •	01	HER X Safety shower and/or eye wash			
	. 1	2	Da not store Wash Do	notortin Donotb	reathe Keep Keep	Empty container Keep away Tay contain
	TIDAS		combustibles after handling or i	alothing milt, gai	closed Land freezing L	La hazardous residues
	ECAU		proof equipment		•	
	<u><u></u></u>					
	HER				· ·	
	3		, ·		·	
100	LPAI	LDAY	SIGNATURE	TITLE	DATE	

	MATERIAL SAFE	TY DATA SHEET	
MSDS NUMBER: 2416 PART NUMBER: INC 2416 PRODUCT NAME: INC 2416 Corrosion Inhibitor Int CAS NUMBER: 68909-18-2 CHEMICAL NAME: Quaternary Ammonium Chloride mi	termediate	•	
	SECTI	ON I	
MANUFACTURER: / VENDOR: InterChem, Inc.			
ADDRESS: 3803 Mankins Odessa, TX 79763		- HMIS RATINGS: HEALTH: 2 FIRE: 3	/\ HEALTH / \ FIRE 2 / \ 3
EMERGENCY TELEPHONE NUMBER: (915)550-7027		REACTIVITY: 0 PERSONAL PROTECTION:	
INFORMATION TELEPHONE NUMBER: (915)550-7027		-	\ /O SPEC. HAZ.\ / REACT.
DATE PREPARED: 10/04/93		-	· \/
SECTION			
SECTION	II - HAZARDOUS INGRE		
CAS NUMBER HAZARDOUS COMPONENT	NTP J	ARC PART/Z 313 OSHA PEL ACGIH TLV RE	COMMENDED PERCENT
68909-18-2 Benzyl Alkyl Pyridinyl Quaternary	Ammonium ?	? ? N NI NI	78-85 %
67-56-1 Methaol	?	? ? Y 200 ppm. 200 ppm.	15-22 %
SECT	ION III - PHYSICAL/(	CHEMICAL CHARACTERISTICS	
BOILING POINT	170 ºF.	SPECIFIC GRAVITY (H2O = 1)	1.04000
VAPOR PRESSURE (mm Hg.)	NI	MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI
SOLUBILITY IN WATER: Partially soluble at 759	F.		
APPEARANCE AND ODOR: Dark Liquid with Pungent	0dor		
OTHER INFORMATION: Viscosity Units > 100 pH = NI Freezing Point = NI Dry Point = NI			
Density (Lb./Gal.) = 8.66			
DANGER Physical Hazards:- Flammable Liquid			
Generic Name:- Quaternary Ammonium Chloride			
UN/NA Number:- UN 1993			
DOT Response Number:- 27			:
DOT Proper Shipping Name:- Quaternary Ammonium	Chloride		
DOT Hazard Class:- 3			
DOT Packing Group:- II			
DOT/CERCLA RQ:- 25,000 Lbs. (Methanol)			
	bject to the report he corresponding CA	ing requirements of Section 313 of Title S numbers and percent by weight are liste	III of the Superfund ed above.
SE	CTION IV - FIRE AND	EXPLOSION HAZARD DATA	
FLASH POINT: 70 º F.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	FLAMMABLE LIMITS: LEL: NI	UEL: NI
EXTINGUISHING MEDIA: Dry Chemical CO2 Foam			

ISDS NUMBER: 2416 Page: 2 RODUCT NAME: INC 2416 Corrosion Inhibitor Intermediate
SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)
PECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see section V - decomposition products possible.
Fight fire from safe distance / protected location.
Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.
Use water spray / fog for cooling.
Notify authorities if liquid enters sewer / public waters.
JNUSUAL FIRE FIGHTING PROCEDURES: Material may release flammable vapors if exposed to high temperature. When mixed with air and exposed to ignition source, vapors an burn in open or explode if confined. Vapors may be heavier than air, may travel long distances along ground before igniting / flashing back to vapor source.
SECTION V - REACTIVITY DATA
STABILITY: Stable under normal conditions.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Strong Acids. Strong Alkalies. Heat, sparks, open flames, and elevated temperatures.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxide, carbon dioxide, and oxides and/or compounds of nitrogen.
HAZARDOUS POLYMERIZATION: Not expected to occur.
SECTION VI - HEALTH HAZARD DATA
ROUTE(S) OF ENTRY: Inhalation:- Primary Route Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Eye contact:- Primary Route Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation.
Skin absorption:- Primary Route Althouth no appropriate human or animal health effects data are known to exist, this material is expected to absorb through the skin.
Skin irritation:- Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant.
Ingestion:- Although no appropriate human or animal health effects data are known to exist, this material is expected to be an ingestion hazard.

#### SIGNS AND SYMPTOMS OF EXPOSURE: Skin Contact:-

Irritation or redness of the skin may develop after exposure. Contains Methanol which is a cumulative toxin, readily absorbed.

Eye Contact:-

Severe eye irritation may develop on exposure. May cause corneal damage.

Ingestion:-

Severe irritation and burning of the linings of the mouth, throat, and stomach may develop.

Toxic by ingestion. Contains Methanol, which is a cumulative toxin that can cause blindness, narcosis, nausea and death.

. . . ....

Inhalation:-



MSDS NUMBER: 2416 PRODUCT NAME: INC 2416 Corrosion Inhibitor Intermediate

### SECTION VI - HEALTH HAZARD DATA (Continued)

Coughing and shortness of breath may result. More severe symptoms are also possible. Methanol is a cumulative toxin. Avoide continuous exposure. Can cause dizziness, unconsciousness, cardiac depression, optic complications and death.

# MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

This material or its emissions may affect the central nervous system and/or aggravate pre-existing disorders. Prolonged observation may be indicated.

# EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention.

#### Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention IMMEDIATELY. Gastric lavage recommended.

### Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately.

Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. The use of an endotracheal tube should be considered. Administer an aqueous slurry of activated charcoal followed by a cathartic such as magnesium citrate or sorbitol.

### OTHER HEALTH WARNINGS:

The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into containers.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occured.

#### WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

# PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Store drums with bungs in up position.

OTHER PRECAUTIONS:

Wash Thoroughly after handling.

Do not get it eyes, on skin, or clothing.

Do not breathe dust, vapor, mist, or gas.

Keep Container closed when not in use.

---Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES
VENTILATION REQUIREMENTS: Either local exhaust or general room ventilation is usually required. •
PERSONAL PROTECTIVE EQUIPMENT: Respiratory Protection:- If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.
Eye Protection:- Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.
Skin Protection:- Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.
Other Hygenic Practices:- Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.
Other Work Practices:- Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Prompt remove soiled clothing / wash thoroughly before reuse.
SECTION IX - ADDITIONAL INFORMATION
ADDITIONAL MANUFACTURER WARNINGS: For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.
OTHER PRECAUTIONS AND COMMENTS: Disclaimers:- Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itsel The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

# MATERIAL SAFETY DATA SHEET MSDS ID: 3-001427

# InDimer 1427 CORROSION INHIBITOR INTERMEDIATE

# **1. - GENERAL INFORMATION**

INTERCHEM 3803 MANKINS ODESSA, TX 79763

915 - 550-7027 INFORMATION

GENERIC NAME

DOT PROPER SHIPPING NAME NOT REGULATED REVISION DATE: 07-06-1993 DATE CREATED: 07- 5-1993

NA-9259

# 2. - SUMMARY OF HAZARDS

CAUTION PHYSICAL HAZARDS:

ACUTE HEALTH EFFECTS:

## SLIGHTLY CONBUSTIBLE

NO DATA ON INHALATION FOUND NO DATA ON EYE IRRITATION FOUND NO DATA ON SKIN ABSORPTION FOUND NO DATA ON SKIN IRRITATION FOUND NO DATA ON INGESTION FOUND

CHRONIC HEALTH EFFECTS: (LONG-TERM) NO APPRPRIATE CHRONIC HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST

# 3. - COMPONENTS

COMPONENT NAME CAS NUMBER % COMPOSITION BY WT NOT HAZARDOUS BY OSHA 29 CRF 1910.1200 STANDARDS. THIS PRODUCT CONTAINS NO SARA SECTION 313 LISTED CHEMICALS.

MATERIAL SAFETY DATA SHEET

MSDS ID: 3-001427

# **InDimer 1427 CORROSION INHIBITOR INTERMEDIATE**

# 4. - PHYSICAL AND CHEMICAL DATA

BOILING POINT AP 600F FREEZING POINT UK SPECIFIC GRAVITY (H2O = 1 AT 39.2 F) AP 0.98 VISCOSITY UNITS, TEMP. (BROOK) UK VAPOR PRESSURE LT 0.1 MM HG AT 70F VAPOR SP. GR. (AIR = 1 AT 60 - 90 F) AP 1.0 APPEARANCE AND ODOR DARK AMBER LIQUITDI __ BURNT GREASE ODOR. CONDITIONS AND MATERIALS TO AVOID HEAT, AND OPEN FLAME. STRONG OXIDIZING AGENTS; STRONG ALKALIES. HAZARDOUS DECOMPOSITION PRODUCTS

pH AP 3.0 TO 4.0 DRY POINT UK VOLATILE CHARACTERISTICS NEGLIGIBLE SOLUBILITY IN WATER NEGLIGIBLE STABILITY STABLE HAZARDOUS POLYMERIZATION NOT EXPECTED TO OCCUR

WHEN HEATED TO DECOMPOSITION, MAY GENERATE CARBON MONOXIDE.

# 5. - OCCUPATIONAL EXPOSURE LIMITS

SUBSTANCE SOURCE DATE TYPE

VALUE

TIME



InDimer 1427 CORROSION INHIBITOR INTERMEDIATE

6. - FIRE AND EXPLOSION

FLASH POINT METHOD = AUTOIGNITION TEMP. METHOD = GT 500 °P N/DA FLAMMABLE LIMITS (1% VOLUME IN AIR) AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE UPPER: N/DA LOWER: N/DA FIRE AND EXPLOSION HAZARDS HEAT FROM FIRE CAN GENERATE FLAMMABLE VAPOR. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED. VAPORS MAY BE HEAVIER THAN AIR, MAY TRAVEL LONG DISTANCES ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE. FINE SPRAYS/MISTS MAY BE COMBUSTIBLE AT TEMPERATURES BELOW NORMAL FLASH POINT. EXTINGUISHING MEDIA DRY CHEMICAL CO2 WATER SPRAY FOAM SPECIAL FIREFIGHTING PROCEDURES DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPOSITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/ PROTECTED LOCATION. HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREASING RISK OF BURNS/INJURIES. DO NOT USE SOLID WATER

STREAM - MAY SPREAD FIRE. USE WATER SPRAY/FOG FOR COOLING. AVOID FROTHING/ STEAM EXPLOSION. BURNING LIQUID WILL FLOAT ON WATER.

NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER / PUBLIC WATERS.

# 7. - HEALTH HAZARDS

ROUTES OF EXPOSURE

INHALATION -- PRIMARY ROUTE

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST

EYE CONTACT -- PRIMARY ROUTE

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST:

SKIN ABSORPTION

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST.

SKIN IRRITATION -- PRIMARY ROUTE

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST.

INGESTION

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

THIS MATERIAL OR ITS EMUSSIONS MAY INDUCE AN ALLERGIC OR SESITIZATION REACTION, AND THEREBY AGGRAVATE SYSTEMIC DISEASE.

# MATERIAL SAFETY DATA SHEET MSDS ID: 3-001427

# InDimer 1427 CORROSION INHIBITOR INTERMEDIATE

# 8. - PROTECTIVE EQUIPMENT / CONTROL MEASURES

# RESPIRATORY PROTECTION

NO OCCUPATIONAL EXPOSURE STANDARDS HAVE BEEN DEVELOPED FOR THIS MATERIAL. WHERE EXPOSURE THROUGH INHALATION MAY OCCUR FROM USE, NIOSH/MSHA APPROVED RESPIRATORY PROTECTION EQUIPMENT IS RECOMMENDED.

## **EYE PROTECTION**

EVEN THOUGH NO SPECIFIC EYE IRRITATION DATA IS AVAILABLE, WEAR EYE PROTECTION APPROPRIATE TO CONDITIONS OF USE WHEN HANDLING THIS MATERIAL.

# SKIN PROTECTION

WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.

## ENGINEERING CONTROLS

AT ELEVATED TEMPERATURES, SPECIAL VENTILATION MAY BE REQUIRED EVEN IF THE FLASH POINT HAS NOT BEEN EXCEEDED. FLAMMABLE MISTS OF AEROSOLS CAN BE GENERATED BELOW THE FLASH POINT OF HIGH BOILING LIQUID.

# OTHER HYGENIC PRACTICES

EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

# OTHER WORK PRACTICES

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING / WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

# 9. - EMERGENCY AND FIRST AID

### INHALATION

IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

## EYE CONTACT

IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20 TO 30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

# SKIN CONTACT

REMOVE CONTAMINATED CLOTHING AS NEEDED. WASH SKIN THOROUGHLY WITH MILD SOAP / WATER. FLUSH WITH LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST.

## INGESTION

SEE SUPPLEMENT.

EMERGENCY MEDICAL TREATMENT PROCEDURES

CONTINUE TO RINSE EYE WITH CLEAN WATER FOR 20 TO 30 MINUTES, RETRACTING EYELIDS OFTEN. CONTACT OPHTHALMOLOGIST IMMEDIATELY. TREAT BURNS OR ALLERGIC REACTIONS CONVENTIONALLY AFTER DECONTAMINATION.



MSDS ID: 3-001427

# **InDimer 1427 CORROSION INHIBITOR INTERMEDIATE**

# 10. - SPILL AND DISPOSAL

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED

RELEASE CAN CAUSE FIRE / EXPLOSION. EXTINGUISH ALL IGNITION SOURCES. IMPOUND/ RECOVER LARGE LAND SPILL; SOAK UP SMALL SPILL. ON WATER, MATERIAL INSOLUBLE. CONTAIN / MINIMIZE DISPERSION / COLLECT REPORT PER REGULATORY REQUIREMENTS. WASTE DISPOSAL METHODS

LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS DILUTING WITH CLEAN, LOW VISCOSITY FUEL. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABE REGULATIONS. DILUTE AQUEOUS WASTE MAY GIODEGRADE. AVOID OVERLOADING / POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS. CONTAMINATED PRODUCT, SOIL OR WATER SHOULD NOT BE DESIGNATED RCRA HAZARDOUS WASTE.

# 11. - ADDITIONAL PRECAUTIONS.

HANDLING AND STORAGE PROCEDURES

SLIGHTLY COMBUSTIBLE. KEEP CONTAINERS CLOSED WHEN NOT IN USE. STORE AWAY FROM HEAT, SPARKS, OPEN FLAMES AND STRONG OXIDIZING AGENTS. STORAGE TEMPERATURE - MAX. 140 F; MIN. 32 F. IF FROZEN, THAW AND MIX THOROUGHLY BEFOFE USE.

DECONTAMINATION PROCEDURES

EQUIPMENT CONTAINING THIS MATERIAL SHOULD BE ISOLATED AND THOROUGHLY DRAINED, WASHED, AND PURGED PRIOR TO MAINTENANCE / REPAIR OPERATIONS. WEAR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

# 12. - LABEL INFORMATION

USE STATEMENT FOR INDUSTRIAL USE ONLY KEEP OUT OF REACH OF CHILDREN SIGNAL WORD CAUTION PHYSICAL HAZARDS COMBUSTIBLE **HEALTH HAZARDS** SKIN AND EYE IRRITANT PRECAUTIONARY MEASURES DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. WASH THOROUGHLY AFTER HANDLING.

MATERIAL SAFETY DATA SHEET MSDS ID: 3-001427

InDimer 1427 CORROSION INHIBITOR INTERMEDIATE

13. - SUPPLEMENT

HEALTH HAZARDS -- SECTIONS II, IV, AND VII

VERY LITTLE DATA ARE AVAILABLE ON THE TODICITY OF THIS PRODUCT. IT MAY BE A MILD ALLERGEN (SAX, DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS). ANOTHER UNPUBLSHED REPORT STATES THAT THIS MATERIAL MAY BE TREATED AS A NON-TOXIC VEGETABLE OIL WITH NO KNOWN EFFECTS FROM OVER-EXPOSURE. IT ALSO STATES THAT SENSITIVE OR SESITIZED INDIVIDUALS MAY DEVELOP SYMPTOMS UPON REPEATED DERMAL CONTACT. THE PH OF THIS PRODUCT IS EXPECTED TO BE IN THE RANGE OF 3.0 TO 4.0 WHICH MAY INDUCE EYE OR SKIN IRRITATION.

> AP GT

UK

N/P

NOTE --- QUALIFIERS AND CODES USED IN THIS MSDS

EQ	= EQUAL
LT	= LESS THAN
TR	= TRACE
Ν/ΛΡ	= NOT APPLICABLE
N/DA	= NO DATA AVAILABLE

- = APPROXIMATELY
  - = GREATER THAN
  - = UNKNOWN
- = NO APPLICABLE INFORMATION FOUND

# 14. - DISCLAIMERS

SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELI-ABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

THIS MSDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE PRODUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THIS MSDS INFORMATION MAY NOT BE APPLICABLE.

THIS MSDS HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1200).

	1				
NA NA TATU MANA MANA MANA MANA MANA MANA MANA MAN	MATERIAL S	SAFETY DATA SHEET			
MSDS NUMBER: 2213 PART NUMBER: INC 2213 PRODUCT NAME: INC 2213 Scale Inhibitor CAS NUMBER: 6419-19-8 CHEMICAL NAME: Phosphonic Acid Derivati	۲ Intermediate ive				
	SI	ECTION I			
MANUFACTURER: / VENDOR: InterChem, Inc.			/		
ADDRESS: 3803 Mankins Odessa, TX 79763		HMIS RATINGS: HEALTH: 2 FIRE: 1	HEALTH / \ FJ 2 / \ `		
EMERGENCY TELEPHONE NUMBER: (915)550-70	)27	PERSONAL PROTECTION:			
INFORMATION TELEPHONE NUMBER: (915)550-	-7027		SPEC. HAZ.\ / RE		
DATE PREPARED: 07/09/93		· · ·	N/		
	SECTION II - HAZARDOUS I	NGREDIENTS/IDENTITY INFORMATION			
CAS NUMBER HAZARDOUS COMPONENT	N	TP IARC PART/Z 313 OSHA PEL ACGIH TLV RECO	MMENDED PERCENT		
6419-19-8 Phosphonic Acid, [Nitrilo Tris	Tris (Methylene)],	? ? ? N NI NI	48-52 %		
	SECTION III - PHYSIC	AL/CHEMICAL CHARACTERISTICS	<u>, 1                                     </u>		
BOILING POINT	> 212 º F.	SPECIFIC GRAVITY (H2O = 1)	1.30000		
VAPOR PRESSURE (mm Hg.)	NI	MELTING POINT	NI		
VAPOR DENSITY (AIR = 1)	ИІ	EVAPORATION RATE (Butyl Acetate = 1)	NI		
SOLUBILITY IN WATER: Complete					
APPEARANCE AND ODOR: Amber, Clear Liqu	id with Strong Aldehyde	Odor			
OTHER INFORMATION: Viscosity Units = App. 11 pH = App. 7 Freezing Point = NI Dry Point =	2.0 NI				
Density (Lb./Gal.) = 10.83 DANGER Physical Hazards:- Corrosive to Metals					
Generic Name:- Phosphonate Scale Inhib	itor	-			
UN/NA_Number:- UN 1760					
DOT Response Number:- 60					
DOT Proper Shipping Name:- Corrosive L	iquid, n.o.s.				
DOT Hazard Class:- 8					
DOT Hazard Class:- 8					
DOT Hazard Class:- 8 DOT Packing Group:- II					

SECTION IV - FIRE AND EXPLOSION HAZARD DATA UEL: N/App. FLASH POINT: > 200 ♀ F. FLAMMABLE LIMITS: LEL: N/App. EXTINGUISHING MEDIA: Dry Chemical

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Dry Ch	nemical
C02	
Water	Spray

MSDS NUMBER: 2182 Page: 2 PRODUCT NAME: INC 2182 Emulsion Breaker Intermediate SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued) Water Spray Water Fog SPECIAL FIRE FIGHTING PROCEDURES. Do not enter fire area without proper protection - see section V - decomposition products possible. Fight fire from safe distance / protected location. Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries. Use water spray / fog for cooling. Notify authorities if liquid enters sewer / public waters. UNUSUAL FIRE FIGHTING PROCEDURES: None. . SECTION V - REACTIVITY DATA STABILITY: Stable under normal conditions. INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Heat, sparks, open flames, and elevated temperatures. HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxide and carbon dioxide. HAZARDOUS POLYMERIZATION: Not expected to occur. SECTION VI - HEALTH HAZARD DATA ROUTE(S) OF ENTRY. Inhalation:-Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. Eye contact:- Primary Route Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation. Skin absorption:-Although no appropriate human or animal health effects data are known to exist, this material is expected to be absorbed through the skin. Skin irritation:-Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant. Ingestion:-

Although no appropriate human or animal health effects data are known to exist, this material is expected to be an ingestion hazard.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Irritant to Eyes. Irritant to Skin. Moderate Ingestion Hazard. Moderate Inhalation Irritant. No data on Skin Absorption Found.

SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-

Irritation or redness of the skin may develop after exposure. (Dermatitis)

Eye Contact:-

Severe eye irritation may develop on exposure.

Ingestion:-

Severe irritation and burning of the linings of the mouth, throat, and stomach may develop. Large amounts, if retained, may lead to symptoms of central nervous system depression.

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MS[®]S NUMBER: 2213 PRODUCT NAME: INC 2213 Scale Inhibitor Intermediate

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Page: 3

SECTION VI - HEALTH HAZARD DATA (Continued)	
Coughing and shortness of breath may result.	namen fan Heckingen an sere
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Any preexisting dermatitis or other skin disorders.	
EMERGENCY AND FIRST AID PROCEDURES: Inhalation:- If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtair emergency medical attention. Prompt action is essential.	1
Eye Contact:- In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emer medical attention.	rgency
Skin Contact:- Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for ^ minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.	15
Ingestion:- If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomit risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Gastric lavage recommended.	ing, as
Emergency Medical Treatment Procedures:- Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Do not induce vomiting. Gastric lavage recommend	to rinse ded.
OTHER HEALTH WARNINGS: The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avo- contact.	iding
SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Equip responders with proper protection (see section VIII). SMALL SPILL:- Absorb liquid on paper, vermiculite, floor ab or other absorbent material, and transfer to hood.	sorbent,
LARGE SPILL:- Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wear protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike a spill to prevent spreading, pump liquid to salvage tank.	ing rea of
Neutralize collected liquid waste with dilute caustic soda, sodium carbonate (will fizz), or sodium bicarbonate (will fiz Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or orther absorbent material and shoveled into cont	z). ainers.
Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, spill has occured.	that a
WASTE DISPOSAL METHOD: Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter a disposal facility.	the ind
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel. Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition ar incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipme during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers wh previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting ir of ignition. Use good personal hygiene practices. Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liqui solid), all hazard precautions given in the data sheet must be observed. Store drums with bungs in up position.	nd ent used nich n a source id, and/or
OTHER PRECAUTIONS: Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.	

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### SECTION VIII - CONTROL MEASURES

#### VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

#### PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

#### Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

#### Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

#### Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

#### Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

#### ADDITIONAL MANUFACTURER WARNINGS:

For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.

### OTHER PRECAUTIONS AND COMMENTS:

#### Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or

expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

Page: 4

•	MATERIAL SAFE	ETY DATA SHEET				
MSDS NUMBER: 2216 PART NUMBER: 2216 PRODUCT NAME: INC 2216 Scale Inhibitor Inter CAS NUMBER: 69009-91-2 CHEMICAL NAME: Phosphonic Acid Salt	nediate					
Ye da ya da ya manaka ya da ya d	SECT	ION I				
MANUFACTURER: / VENDOR: InterChem, Inc.	. * - * * * * * * * * * * * * * * * * *		. //			
ADDRESS: 3803 Mankins Odessa, TX 79763		HMIS RATINGS: HEALTH: HEALTH / FIRE FIRE: 2 / 1				
EMERGENCY TELEPHONE NUMBER: (915)550-7027	<u> </u>	PERSONAL PROTECTION:				
INFORMATION TELEPHONE NUMBER: (915)550-7027			SPEC. HAZ.\ / REACT			
DATE PREPARED: 10/07/93	an a		· ·			
SECTIO		EDIENTS/IDENTITY INFORMATION	۵۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰			
		SUB- SADA OTHER	LIMITS			
CAS NUMBER HAZARDOUS COMPONENT	NTP	IARC PART/Z 313 OSHA PEL ACGIH TLV RECOM	MENDED PERCENT			
12125-02-9 Ammonium chloride 69009-91-2 Trade Secret # 2216-01	? ?	? ? N NI NI ? ? N NI NI	5-10 45-50			
SE	CTION III - PHYSICAL/	CHEMICAL CHARACTERISTICS				
BOILING POINT	212 F.	SPECIFIC GRAVITY (H2O = 1)	1.24000			
VAPOR PRESSURE (mm Hg.)	NI	MELTING POINT	NI			
VAPOR DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI			
SOLUBILITY IN WATER: Complete						
APPEARANCE AND ODOR: Amber Liquid / Pungent	Odor	·····				
OTHER INFORMATION: Viscosity Units = AP 28 pH = AP 1.0 Freezing Point = NI Dry Point = NI						
DANGER Physical Hazards:- Combustible Liquid Corrosive to Metals						
Generic Name:- Phosphonic Acid Salt						
UN/NA Number:- UN 1760		•				
DOT Proper Shipping Name:- Corrosive Liquid	I, N.O.S. (Phosphonic	Acid Salt)				
DOT Hazard Class:- Corrosive Liquid						
DOT/CERCLA RQ:- NE						
This product contains no SARA Section 313 Li	isted Chemicals					
	SECTION IV - FIRE AN	D EXPLOSION HAZARD DATA				
FLASH POINT: > 200 F.		FLAMMABLE LIMITS: LEL: NI UEI	_: NI			
EXTINGUISHING MEDIA: NI						

Fight fire from safe distance / protected location.

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MSDS NUMBER: 2216 PRODUCT NAME: INC 2216 Scale Inhibitor Intermediate

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

May become combustible following evaporation of non-combustible carrier.

Use water spray / fog for cooling. Notify authorities if liquid enters sewer / public waters.

UNUSUAL FIRE FIGHTING PROCEDURES: May become combustible upon loss of water carrier.

SECTION V - REACTIVITY DATA

#### STABILITY: Stable

INCOMPATIBILITY (MATERIALS TO AVOID): Heat, open flame. Evaporation of all water content. Strong Oxidizing Agents. Strong Bases (Alkalies)

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

When heated to decomposition, may emit Carbon Monoxide, as well as trace oxides and/or compounds of Nitrogen and Phosphorous.

HAZARDOUS POLYMERIZATION: Not expected to occur.

SECTION VI - HEALTH HAZARD DATA

# ROUTE(S) OF ENTRY:

Inhalation:-

Inhalation is unlikely except at elevated temperatures and/or pressure. However, if exposed to vapor / aerosol for even a short time, coughing and shortness of breath may result. More severe symptons are also possible.

Eye Contact:- Primary Route May cause destruction of eye tissue.

### Skin Absorption:-

No appropriate human or animal helath effects data are known to exist.

Skin Irritation: - Primary Route

May produce skin irritation, blistering, ulcers, and deep scarring.

Ingestion:-

Ingestion of this material may cause corrosion or irritation of the linings of the mouth, throat, and gastrointestinal tract.

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute Health Effects:- (Short Term) Corrosive to Eyes. Corrosive to Skin. Severe Ingestion Hazard. No data on Inhalation Found. No data on Skin Absorption Found.

# SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-

Irritation or redness of the skin may develop after exposure.

#### Eye Contact:-

Severe eye irritation may develop immediately on exposure.

Ingestion:-

* Severe irritation and burning of the linings of the mouth, throat, and stomach may develop.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

If ingested, may cause corrosion of the Gastrointestinal tract. If may also cause corrosion of skin and eye on contact. Prompt treatment is essential to minimize damage.

### EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt actions is essential.

#### Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract eyelids often. Obtain emergency medical

MSDS NUMBER: 2216 PRODUCT NAME: INC 2216 Scale Inhibitor Intermediate

### SECTION VI - HEALTH HAZARD DATA (Continued)

attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention. Indestion:-If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. Do not induce vomiting, as risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention. Emergency Medical Treatment Procedures:-Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. OTHER HEALTH WARNINGS: The toxicological and carcinogenic properties of this material have not been fully investigated. Handly accordingly, avoiding contact. . SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Soak up small spill with inert Equip responders with proper protection (see Section VIII). Impound / recover large land spill. SHovel into suitable cisposal containers. Flush / dilute residue with water. solids. WASTE DISPOSAL METHOD: Comply with Federal / State / Local regulations for disposal. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: For transport, handling, and storage, use polyethylene, plastic, figerglass, lined steel, or stainless steel. OTHER PRECAUTIONS: Decontamination Procedures:-Equipment containing this material should be isolated and thoroughly drained, washed, and pruged prior to maintenance / repair operations. Wear recommended personal protective equipment.

SECTION VIII - CONTROL MEASURES

#### VENTILATION REQUIREMENTS:

Either local exhausr or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or suppled air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The quipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soilde clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS: This product contains no SARA Section 313 listed chemicals.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself.

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness.

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Page: 3





MSDS NUMBER: 2216 PRODUCT NAME: INC 2216 Scale Inhibitor Intermediate

SECTION IX - ADDITIONAL INFORMATION (Continued)

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

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	P.0. Box 13166 3803 Manking	800-424 9300	NFFA 714 HAZARD RATHIG	AALTH	·····	·	
IN	TERCHEM, INC. Odessa, Tx		4 + Extreme 3 + High 2 = Moderate				
	19168 19163	(915)550-7027	1 = Sught 0 = Minimal # = Chronic	1		ALVIED	
		*24hour*	Health Hazard	1	01-30-90		
	INC-2215	Phos	phonic Acid	1			
DBUC	Amino Methvlene Phosphonic Acid	1			·· .		
E E	64009-91-2	- ^P 4			CARCING	DOIN	
2	CAS NO COMPONENTS		Subject to SAHA Section 313	*	ACGIHITLY	OSHA PEL	
NIS				- <u></u>		mg '~	
REDIE	69009-91-2 Dieth Lene Triaz Nethylene Phose	nine Tetra	No	48-52	NE	` F	
SING				40 02		N.L.	
RDOU							
HAZA		`					
	1	. 1		1001 -	LARD CLASSIFIC	1 1760 S	_
PING	Corrosive Liquid NOS - UN1760			Co	rrosive		
100	(Phosphonic Acid)						
5	1011426 (1607)001 (1607)000 (1607)000 (1607)000	** ND ** . *C N	INULICULA	A WEIGHT	SPECIV:C QV	• 60 •F	:
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PHUP	AFFIA A ANCL & ODOF		48-52		0		
5	Amber Liquid with punzent odor		TION TEMPERATUR	<b>.</b>	DCTEME		~
Y	*C 200 'F SD	× 8v vo'	•c ND •			<u> </u>	
NO X	Computible Water tog Y CO2	nicat Alconol T Foam	Earin or mud		······································		
FIRE	Wear usual fire protective clothing and	self contained breathir	ng apparatus i	n emerae	ncies.		
EXPI	UNULUAL PIPE AND ESPLOSION HAZANDS						
	None						
6	Static to Crist trans contain the Thermal	Privmerization	n 🗌 Conteminal	100			
A IIY	ANTAROOUS FOL - WER SATION INCOMPATABILITY - AVOID C	COLLACT WITH		· <u></u>			
ACTI DAT	HAJARDOUS DECOMPOSITION PRODUCTS - THERMAL AND DI				·····		
Here and the second sec	CONDITIONS TO AVOID /		······································				
	Imperatures above C	• E			······		
	Keep upwind N Avoid Skin S Fluth	iter Di inett material	Neutralize		and remove	Dispili	bei
s,							
-4	WASTE DISPOSAL - Consult rederal, state, ar	nd local authorities for pro,	per	UNDER	ALIO	ATABLE QUANTI	TT
`~	Under RCRA, it is the responsibility of the user to de	termine, st the time of dispose		ISUPERFUN	BI RQ =	N.E. Pou	nds
	whether product meets RCRA criteria for hazerdous	Y BS10,			CON	TINUED ON EASE SIDE	
NA-N01	APPLICABLE ND-NOT DETERMINED <-	LESS THAN >-GREATEN	1 THAN ~ - AP	PROXIMATI	ELY RHAEVIS The Aspendia For Aspendia		
	inner in an the second s	nini 19. nini ny manana prakavantakana pini ina mananan n			ر ۱۰ ۹۰ مې د مېرېږي د مېمېر اوم		بارده معر

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	• '	telers using product, read and tollow direction and precautions on product work and outwinking	
*	8	DERMAL (SKIN)	
		No specific data avaliable - skin irritant	
		Ne specific data available - eye irritant	
		INNALATION	
117		DRAL	
DXIC		No specific data available - Avoid contact	
<b>-</b>	•	The toxicological and carcinogenic properties of this material have not been fully	v
		investigated. Handle accordingly, avoiding contact.	,
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Ī	9	DERMA.	
	5	May nuse irritation	
	<u>.</u>	May cause severe irritation	
X	5	INHALATION	
IYW	11	Ingestion	
HO I	Ξ	highly acidic material	
M	10	DEHMA. Wash with soap and water. Seek medical attention if indicated.	
ALAF			
H H		EYE CONTACT	
E		should be removed if the initial flush attention Open Livial Frem out	
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	=	i neroes it indices for a spirition it needed it indicated it indicated	
	-†	INGESTION INEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSONI	
		Lo not induce Induce Give plenty Get medical vomiting vomiting I bit water attention	
	111	HANDS IGLUVE MATERIALS TO MINIMIZE CHEMICAL CONTACTI	
		Neoprene Netural Poly Butyl Polyvinyl Polyvinyl chloride	
KO)	$\left  \right $	FYEC	
	5	Chemical splash goggles or face shield	
108		VENTILATION REQUIREMENTS - Always maintain asposing below permissible asposing innes	
	5	Are: mechanical RESPIRATOR TYPE - For reducing conteminant concentration in inhered air	
232		Ariter - dust Can or carteroge	
S	ł		
		Safety shower and/or ave wash	
	12	Do not store Wash Do not set in Do not breathe Keep Empty conteiner Keep away i	trom
RL IDKS		compustibles atter handling and or clothing and mill gas atter handling atter han	. and
NI NI		Use explosion proof equipment	1
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AT.		AT BIGHATTIRE TITLE DATE	-
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PLE		E This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of The date on this sheet relates only to the specific material designated herein, assumes no legal responsibility for use	
		or reliance upon this data.	

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	MATERIAL	SAFETY DATA SHEET	19 و به محمد عور کار کار ایک را ایک رو و و و و و و و و و و و و و و و و و و			
MSDS NUMBER: 224/ PART NUMBER: INC 224/ PRODUCT NAME: INC 224/ Scale Inhibitor Interm CAS NUMBER: ~ -0	ediate					
CHEMICAL NAME: PolyAcrylate Solution			1			<del></del>
	S	ECTION I	·			
MANUFACTURER: / VENDOR: InterChem, Inc.		HMIS RATINGS:			Λ.	
ADDRESS: 3803 Mankins Odessa, TX 79763		HEALTH: 1 FIRE: 1 DEACTIVITY: 0				
EHERGENCY TELEPHONE NUMBER: (915)550-7027		PERSONA	L PROTECTION:	c		
INFORMATION TELEPHONE NUMBER: (915)550-7027				SPEC.	HAZ.\/	REACT.
DATE PREPARED: 11/03/93	· · · · · · · · · · · · · · · · · · ·		, <u>, , , , , , , , , , , , , , , , </u>			
SECTION	II - HAZARDOUS I	NGREDIENTS/IDENTITY INFO	RMATION ,			
CAS NUMBER HAZARDOUS COMPONENT		SUB- SARA ITP IARC PART/Z 313 OSHA	PEL ACGIN TLV	OTHER LIMIT RECOMMENDED	S PERCENT	
SEC	TION III - PHYSIC	AL/CHEMICAL CHARACTERIST	ICS	, ,		······································
BOILING POINT	App. 212≌F	SPECIFIC GRAVITY (H	20 = 1)		1.30000	· · · · · · · · · · · · · · · · · · ·
VAPOR PRESSURE (mm Hg.)	App. 17	MELTING POINT			ŅI	
VAPOR DENSITY (AIR = 1)	0.6	EVAPORATION RATE (B	Butyl Acetate = 1	>	Moderat	
SOLUBILITY IN WATER: Appreciable		l	· · · · · · · · · · · · · · · · · · ·			
APPEARANCE AND ODOR: Bright Pale Yellow Liqui	d, Mild Odor.		<u></u>			
COTHER INFORMATION: Viscosity Units = 400 pH = 3 to 5 Freezing Point = NI Dry Point = NI Density (Lb./Gal.) = 10.8					•	
DANGER Physical Hazards:- Corrosive to some Metals						
Generic Name:- PolyAcrylate Solution						
UN/NA Number:- N/App.			<b>.</b>		•	
DOT Response Number:- N/App.			· · · · · · · · · · ·			
DOT Proper Shipping Name:- DOT Not Regulated						
DOT Hazard Class:- N/App.						NACES NUMBER
DOT Packing Group:- N/App.						
DOT/CERCLA-RQ:						
Animendments and Reauthorization Act of 1986.	s subject to the	reporting requirements o	f Section 313 of	Title III of	the Super	fund
	SECTION IV - FIRE	AND EXPLOSION HAZARD DA	TA			t Ber
FLASH POINT: > 200 9 F.	······································	FLAMMABLE LIMITS:	LEL: NI	UEL: NI		
EXTINGUISHING MEDIA: Midry Chemical Artico2						
Water Spray						5 4.14 19 5 19 5
	<u> </u>					

	Page: 2
PRODUCT NAME: INC 224 Scale Inhibitor Intermediate	
SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)	
SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection - see section V - decomposition products possible.	
Fight fire from safe distance / protected location.	
Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.	
May become combustible upon loss of aqueous carrier.	
Use water spray / fog for cooling.	
Notify authorities if liquid enters sewer / public waters.	
UNUSUAL FIRE FIGHTING PROCEDURES: While not normally combustible, if water content is lost (as in a fire), material may release flammable vapors temperature. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined heavier than air, may travel long distances along ground before igniting / flashing back to vapor source.	if exposed to . Vapors may b
SECTION V - REACTIVITY DATA	
STABLLITY: Stable under normal conditions.	
INCOMPATIBILITY (MATERIALS TO AVOID): Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid. Strong Alkalies. Mild Steel, copper, brass. Heat, sparks, open flames, and elevated temperatures.	
HAZARDOUS DECOMPOSITION_OR BYPRODUCTS: Incomplete combustion may release poisonous carbon monoxide and carbon dioxide, and perhaps other toxic vapors	5.
HAZARDOUS POLYMERIZATION:	
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NSDS NUMBER: 2241 PRODUCT NAME: INC 2241 Scale Inhibitor Intermediate

#### SECTION VI - HEALTH HAZARD DATA (Continued)

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

__Not_expected_to present_a_significant inhalation hazard under conditions of normal use......

Eye Contact:~

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract both eyelids often. Obtain emergency medical attention if pain, blinking, tears or redness persist.

Skin Contact:-

Not expected to present a significant skin hazard under anticipated conditions of normal use.

Ingestion:-

Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

Emergency Nedical Treatment Procedures:-

Treat symptomatically.

After adequate first aid, no further treatment is required unless symptoms reappear.

OTHER HEALTH WARNINGS: NI

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL:- Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:- Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. -----Slippery - Spread granular cover. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers. Report per regulatory requirements.

Report per regulatory requirements

#### WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Liquid material is slippery - remove small leaks / spills from walking surface with solid absorbents. Use caution to avoid falls causing serious injury. Store away from heat, sparks, open flames and strong oxidizing agents. Use only non-sparking tools. Protect from freezing. If frozen, thaw and mix thoroughly before use. Avoid overheating which may adversely affect quality or overpressure containers.

Decontamination Procedures:-

Empty containers should be thoroughly washed with copious amounts of clean water. The rinse water can then be used for makeup water for any necessary dilution of the concentrated product before use, or it can be properly discarded.

OTHER PRECAUTIONS:

Wash Thoroughly after handling. Do not get it eyes, on skin, or clothing. Do not breathe dust, vapor, mist, or gas. Keep Container closed when not in use. Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

#### VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

#### PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

#### Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

#### Skin_Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygenic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

#### SECTION VIII - CONTROL MEASURES (Continued)

#### Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

#### ADDITIONAL MANUFACTURER WARNINGS:

For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.

OTHER PRECAUTIONS AND COMMENTS:

#### Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or -expense-arising-out-of;-or-in-any-way-connected with the handling, storage, use, or-disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).

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PRO-KEM, INC. LOVINGTON, NM 88260

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DETACH AND RETAIN THIS STATEMENT THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW IF NOT CORRECT, PLEASE NOTIFY US PROMPTLY, NO RECEIPT DESIRED

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### State of New Mexico ENERGY, NUERALS and NATURAL RESOURCES DE RTMENT Santa Fe, New Mexico 87505



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February 6, 1995

# CERTIFIED MAIL RETURN RECEIPT NO.Z-765-962-637

Mr. Gerald Phillips PRO KEM INC P.O. Box 1506 Lovington, NM 88260

## RE: Discharge Plan Requirement Lovington Facility Lea County, New Mexico

Dear Mr. Phillips:

Under the provision of the Water Quality Control Commission (WQCC) Regulations, you are hereby notified that the filing of a discharge plan is required for the PRO KEM facility located at 2400 S. Main in Lovington, New Mexico.

The discharge plan is required pursuant to Section 3-104 and 3-106 of the WQCC regulations. The discharge plan, defined in Section 1.101.Q of the WQCC regulations should cover all discharges of effluent or leachate at the facility site or adjacent to the facility site. Included in the plan should be plans for controlling spills and accidental discharges at the facility, including detection of leaks in buried underground tanks and/or piping.

Pursuant to Section 3-106.A, a discharge plan should be submitted for approval to the OCD Director within 120 days of receipt of this letter. Three copies of the discharge plan should be submitted.

VILLAGRA BUILDING - 408 Galisteo Forestry and Resources Conservation Division P.O. Box 1948 87504-1948 827-5830 Park and Recreation Division P.O. Box 1147 87504-1147 827-7465 2040 South Pecheco Office of the Secretary 827-5950 Administrative Services 827-5925 Energy Conservation & Management 827-5900 Mining and Minerals 827-5970 Oil Conservation 827-7131 Mr. Gerald Phillips February 6, 1995 Page 2

A copy of the regulations have been provided for your convenience. Also provided is an OCD guideline for the preparation of discharge plans at oil & gas service companies. The guideline addresses berming of tanks, curbing and paving of process areas susceptible to leaks or spills and the disposition of any solid wastes.

The discharge plan is subject to the WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of fifty (50) dollars plus the flat rate of one thousand, three hundred and eighty (\$1380) dollars for oil & gas service companies. The fifty (50) dollar filing fee is due when the discharge plan is submitted. The flat rate fee is due upon approval of the discharge plan.

Please make all checks payable to: NMED Water Quality Management and addressed to the OCD Santa Fe office.

If there are any questions on this matter, please feel free to contact Patricio Sanchez at 827-7156 or Roger Anderson at 827-7152.

Sincerely, William J. LeMay Director WJL/pws XC: **OCD** Hobbs Office

Z 765 962 637



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State of New Mexico
ENVIRONMENT DEPARTMENT

Harold Runnels Building 1190 St. Francis Drive, P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-2850

JUDITH M. ESPINOSA SECRETARY

> RON CURRY DEPUTY SECRETARY

# RECEIVAD

# DEC 2 9 1992

OIL CONSERVATION DIV. SANTA FE

### MEMORANDUM:

TO: Roger Anderson, Oil Conservation Division Bureau Chief

THRU: Edward L. Horst, RCRA Program Manager

FROM: Michael Le Scouarnech Hazardous Waste Inspector

DATE: December 22, 1992

SUBJECT: Reference of inspection for soil remediation

On November 18, 1992 the Hazardous and Radioactive Materials Bureau conducted an inspection at Pro-Kem Inc. located in Lovington. The results of the inspection bring the HRMB to refer this soil remediation to the Oil Conservation Division. A copy the report is attached. I believe that you already have copies of the appendixes. If you desire clearer pictures, you can borrow the originals, or the negatives.



State of New Mexico ENVIRONMENT DEPARTMENT Harold Runnels Bulding 1190 St. Francis Drive, P.O. Box 26110 Santa Fe, New Mexico 87502 (505)-827-2850

JUDITH M. ESPINOSA SECRETARY

RON CURRY DEPUTY SECRETARY

### PRO-KEM INSPECTION REPORT

Date of Report:	December 8, 1992
Date of Inspection:	November 18,1992
Facility:	Pro-Kem
EPA ID Number:	Non-Notifier
Ownership:	Private
Location:	2400 South Main, Lovington N.M.
Mailing Address:	P.O. Box 1506, Lovington N.M. 88260
Facility Contact:	Gerald Phillips, Owner
Enforcement to:	Gerald Phillips, Owner
Notification Status:	Non-Notifier
Current Operating Status:	Non-Handler
Type of Inspection:	Complaint Investigation
Participants:	Pro-Kem: Gerald Phillips, Mngr. NMED: Coby Muckelroy Michael Le Scouarnec
Weather:	Cloudy, light rain, 60's
Time of Entry:	11:45 a.m.
Time of Exit:	2:30 p.m.

### INTRODUCTION

This inspection was conducted as a Compliance Evaluation Inspection (CEI) in response to a complaint. The complainer is the owner of a property that Pro-Kem is actually leasing from. The nature of the complaint is related to a Pro-Kem's chemical leak and its remediation, that hapenned on the leased property. This inspection was conducted in addition to the FY 93 grant agreement. Mr. Muckelroy, accompanied by Mr. Le Scouarnec, lead the inspection. Based on a file review, this facility has never been inspected by the Hazardous Waste Program.

### HISTORY AND NATURE OF BUSINESS

This facility retails oilfield chemical sales and service. The company exists since 1986. Pro-Kem used to be located at the adjacent estate, 2330 South Main, for a total of 6 years. The facility moved to 2400 South Main in July, '92; and is still leasing the property at 2330 South Main until December 31, 1992. Pro-Kem's manager, Mr. Phillips found out that an underground chemical leak occured prior to July '92.

A 10,000 gallon tank containing naphtha leaked thru underground pipes connecting the tank to the building, (see map & pictures 1 to 7). The leak does not totalize the tank capacity. The leak remained unnoticed for a certain period of time. When Pro-Kem purchased the present location (2400 South Main) and moved everything in July '92, Mr. Phillips contracted Jerry Barnard of Bio Remediation to bioremediate small spills and spots.

According to Mr. Phillips: (see letter in appendix), none of the leaks amounted to more than 3 or 4 gallons and most were smaller than that. The reason for the bioremediation was the clean up of small spills and spots that occured during a period of time of 6 including a place where the diesel fuel tank had leaked, years, and the place where the treating trucks had leaked corrosion inhibitor. The remediation started in August '92, the contractor removed 1 to 2 inches of the contaminated surfaces; then the material was stored in a drum for analysis. The yard included one 10,000 gallon tank of naphtha , one 2000 gallon tank of methanol, and one 800 gallon tank plus four 400 gallon tanks of chemical products. Additionally some drums containing products sat on pallets along the fence. Once all these tanks and containers were moved out; Mr. Phillips contracted Ray Hardy of Pinion Water Well Service to remove the underground pipes connecting the former tanks to the building.

As the latest contractor dug the trench, he noticed a strong odor coming out of the ditch, and informed Mr. Phillips of that. Two days later, Mr.Phillips went back to inspect the backfilled ditch and detected the odor of naphtha. A leak definitively occured at about 60 feet from the building. The cause of the leak is attributed to thread damages. Jerry Barnard of Bioremediation came back to test the area; as well as Ray Hardy to reopen the ditch, and to dig out a plastic line that was deeper than the steel line. On August 20th, the ditch was opened from end to end, and the City of Lovington came on site to inspect the situation. Mr. Phillips and the city delegate removed a small sample of the most contaminated soil, and put a flame to it to see if it would burn. It would not burn.

On August 26, Lovington's City Manager, Mr. Bob Carter contacted Mr. Phillips that the city will have the ditch sample by Cardinal Laboratories for BTEX.

According to Mr. Barnard: Two samples were taken from the top of piles of soil beside the ditch, and a composite sample sample was also taken at various intervals in a span of 60 feet. Cardinal Laboratories conducted analysis method # 8020. During the split session, Mr. Barnard has been instructed by the Cardinal representative on how to take samples.

According to Mr. Phillips: Based on the quantity of contaminated soil removed, the naphtha leak did not exceed more than 30 gallons. On September 18, Jerry Barnard took a composite sample taken at 3 points along the backfilled ditch. The splits were sent immediately to Cardinal Laboratories. Meanwhile, Mr. Phillips scraped the dried material on surface of the yard; his concerns regarding the hazardous nature of the contaminated soil, made him call HRMB.

Following the yard inspection, we inspected the building. No violations were noted in the building. After our inspection at 2330 South Main, the inspectors went next door, at 2400 South Main, where Pro-Kem Inc. moved their installations. There are 8 employees working at Pro-Kem, one blender Mixer, two truck drivers, three salesmen, and two secretaries.

### WASTE STREAMS GENERATED AND HAZARDOUS WASTE MANAGEMENT AREAS

The facility basically generates any hazardous waste. The only waste is the wash-part solvent. The 20 gallon naphtha unit is picked up every other month by Safety-Kleen. Expired chemicals are blended into batches. A contractor takes care of the empty drums that are no longer usable (pinhole leaks, and bent ones).

Solid waste generation consists of Safety-Kleen absorbent (3391) to clean spottage, trashed wood pallets, and office trash.

### RESULTS OF INSPECTION

Coby Muckelroy and Michael Le Scouarnec conducted an inbrief with Mr. Gerald Phillips, Pro-Kem's manager. We conducted the physical inspection followed by a documentation review and the outbrief conference.

The physical started in the yard of Pro-Kem's former location, (2330 South Main). The ground exibited signs of contamination along the trench in which the pipelines were contained, and signs of possible contamination in the area where the tanks were located, (see pict. 1 to 7, and maps in appendix). Mr. Phillips told us that the water table is about 120 feet below surface. Also, that bioremediation consisted of tilling the soil and applying bacteria and fertilizer for about 2 months. The building formerly used for blending did not show signs of contamination. The drain system is self contained, it does not discharge. Mr. Phillips accompanied by the inspectors went back to the facility's present location, (2400 South Main).

The facility mixes different chemicals products with naphtha with the help of 3 vats, (see pict. 8) to form emulsion breakers, paraffin dispersants, surfactants (hydroxy acetic acid), scale inhibitors (salt of phosphoric acid), corrosion inhibitors, and other chemical used in blends such as methanol (winterizing), alcohols, potassium hydroxide, and amine bases. Oxygen scavenger is bought and sold as it is. The expired chemicals are blended into batches, as well rinses from vat blendings. The 20 gallon Safety-Kleen wash-part unit is recycled every 2 months. In the yard, one can see the tanks of product in the bermed area, (see pict. 9,10,11). We then inspected the former washbay for trucks This area is presently used to store and mobile equipments. cleaned drums. No violations were noted during the physical inspection.

Sample analysis of the contaminated area were the only documents available for review during the inspection.

The outbrief conference was conducted by Mr. Muckelroy; Mr. Le Scouarnec and Mr. Phillips were also present. No violations were found at that time. Therefore, Mr. Muckelroy informed Mr. Phillips that a remediation report should be sent as per Mr. Horst's request delineating the locations where the samples were taken, and an estimate of the quantity spilled. The soil analysis results submitted by Cardinal Laboratories reveal no contamination by RCRA wastes.

However, an in-depth analysis for total petroleum hydrocarbon (TPH) contamination will be conducted by Oil Conservation Division (OCD).

In appendix, the documentation submitted from Mr. Phillips consists of: a letter addressed to Mr. Horst explaining the situation, a map, a bioremediation's report letter, a naphtha MSDS, and final analysis report from Cardinal Laboratories.

Also, in appendix, the documentation submitted from Ms. Kitchens, (owner of the leased property), consists of: a letter addressed to Mr. Horst explaining the situation, a map, a bioremediation's report letter, a surfactant warning label, and two attorney's letters.

### RECOMMENDED ACTION

Since no violations were noted or determined at that time, Pro-Kem Inc. should be sent a letter informing them of such. The present file will be referred to OCD. No further action is required.



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## HRMB PHOTO SHEET



FACILITY: Pro-Kem
рното #: _9
DATE: NOV 19,1992
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(2400 South Main)
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VIOLATION: NONE

PHOTO #: 10 DATE: Nov 18, 1992 LOCATION: Facing South (2400 South Main) DESCRIPTION: Berned Orea & Containers (Product) VIOLATION: NowE

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Lover Sheet Date: 12-9-92 To: Hazardons & Radiocation Materiale Bureau Att: Michael Le Teouarnec From: Penney Kitchens ages Sent: 5

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- EPA SW-848; EPA METHODS 8020, 418.1, 3540 OR 3510

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Kee; 19/92

C. GENE SAMBERSON MICHAEL T. NEWELL

LEWIS C. COX, III

LAW UPPICES HEIDEL, SAMBERSON & NEWELL 311 NORTH FIRST STREET POST OFFICE DRAWER 1559 LOVING TON, NEW MEXICO 80260

TELEPHONE (505) 398-5303 : FAX (505) 398-5305 November 6, 1992

FONY EXPRESS M&M

PAGE 03

F.L. HEIDEL (1913-1995)

Mr. C. Barry Crutchfield TEMPLEMAN AND CRUTCHFIELD Attorneys-At-Law Second Floor, Reed-McCrory Building Lovington, New Mexico 88260

Re:

Your Client: Pro-Kem, Inc. Our Clients: Paul and Penny Kitchens

Dear Barry:

I acknowledge receipt of your letter of October 14, 1992, responding to my letter of Uctober oun.

I will point out that some of the matters upon which you express your understanding as reflected in your October 14th letter are contrary to my understanding. First, Mr. and Mrs. Kitchens have not had direct contact with the property use by Pro-Kem, Inc. except for a brief period initially and thus they have had no direct contact with the property use by Pro-Kem for the past several years. Next, we have no information that indicates that the two (2) tests of samples taken in connection with the City's efforts indicates that no further remediation steps are required, nor that such testing results indicate that Pro-Kem's remediation efforts have been successful. It is my understanding that based on the testing of the two (2) samples done no one is in a position to certify that the remediation efforts have been successful and that no further remediation efforts are required. With respect to the building, I believe it is more accurate to say that while Mr. Kitchens has inspected the building and has indicated a willingness to agree upon the physical repairs made by Pro-Kem to the building he has never agreed that the building is free from contamination arising out of or by reason of Pro-Kem's operations. We frankly do not know at this point whether the building is or is not free of such contamination.

The purpose of my letter of October 6th to Pro-Kem, Inc. was our attempt to resolve concerns on behalf of the Kitchens as quickly and as cheaply as possible for all interested parties. Consequently, I requested the information set forth in my October 6th letter. Unfortunately, we have not been furnished any of the requested information. I was of the opinion that if we received the requested information I would be in a position to submit that to a qualified entity engaged in performing certified environmental surveys to determine what, if any, additional sampling, testing, etc. might be recommended. As you are well aware, unless

PONY EXPRESS M&M

# November 6, 1992

Mr. C. Barry Crutchfield

specific information is available in making such a request, those entities engaged in the environmental survey business are unable to set definite parameters upon which to base their recommendations and provide an estimate of costs for accomplishing their recommendations. My clients' principal concern, of course, is that the leased premises be returned to them in as good a state and condition as when Pro-Kem, Inc. originally commenced the Lease, except for reasonable use and wear thereof. They want to do whatever is reasonable to assure themselves and any prospective purchaser or tuture tenant that the premises are safe for human occupancy and use.

with respect to the obligations of Pro-Kem, Inc. under the existing Lease of the premises, it is my understanding that Pro-Kem is obligated to maintain the demised premises in good and proper manner for the duration of the Lease, excepting ordinary wear and tear and, that upon completion of the Lease, Pro-Kem is obligated to return the demised premises in as good a state and condition as received by Pro-Kem at the commencement of the Lease, excepting reasonable use and wear. Based on the limited information available to us, I know that some of the premises have had spills and leaks arising from Pro-Kem's operations, but we are not knowledgeable of the full nature, extent and location of same. Also, based upon the limited information 1 have regarding Pro-Kem's operations, I am inclined to believe that Pro-Kem, Inc. is obligated under Federal law and State law to keep accurate records of hazardous substances and to notify proper agencies of spills and leaks. In addition, I suspect that Pro-Kem is required to mainain Material Safety Data Sheets for at least some, if not all, of the chemicals stored or used on the premises during their operations for the past several years. Consequently, I have some difficulty understanding why the information requested is not readily available from Pro-Kem. Further, I believe Pro-Kem, Inc. has the obligation to not only disclose this information and turnish the other information that I requested in my October 6th letter, but also to furnish to us evidence satisfactory to show it will meet its obligations under the Lease that the property is being returned to the Kitchens at the end of the Lease term in as good a state and condition as when received by Pro-Kem at the commencement of the Lease, ordinary wear and tear excepted. You indicated in the last paragraph of your October 14th letter that it is Pro-Kem's position that all reasonable and necessary repairs to the property have been made and that you would forward to me the final clearance of the property. I am not sure what final clearance you have reference to, but if you have any written document or other information to support Pro-Kem's position, I request that you furnish it now. I do not believe the mere statement of what Pro-Kem's position is meets its obligations under the Lease,

It Pro-Kem fails to furnish satisfactory evidence sufficient to show it will meet its obligations under the Lease as outlined above, then the Kitchens will want to have access to the premises upon reasonable notice to you for purposes of pursuing the recommendations of a qualitied environmental survey entity, including any recommended sampling and testing. If the Kitchens, in their efforts to reasonably assure themselves that the premises will be safe for numan occupancy and use upon the expiration of the present Lease are required to obtain an environmental survey, the Kitchens will look to Pro-Kem for damages and particularly if such



12/09/1992 13:22 5053963543

PONY EXPRESS M&M

PAGE 05

November 6, 1992 Mr. C. Barry Crutchfield

survey shows that Pro-Kem, Inc. has not met its Lease obligations. We really have no desire to get into litigation over these matters. We are really seeking you and your client's cooperation in order to resolve all concerns as soon as possible.

very truly yours,

HEIDEL, SAMBERSON & NEWELL

By C. Sene Spinberson

CGS:lt

ec: Mr. and Mrs. Paul Kitchens

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Street Walter and 27. From dut cu Bege fler WALKThose  $\overline{D}$ Ē 5 E) D-EDOGRADA - -- ROINS TRAKS IPAYTOMETE D miling of sinding sats lai! 3 10,000 galion TANK -NEChtha 9 2100 GAILON TANK - methanol E storage areas for dums if clemical & mild products 6 diesel fuel storain Haal * 4 under ground lines () 30'x 75' Metal Building U Blending Ē West Yred EAST /ARd ć e S Ke-ez * Not being on location daily - Ki this tark could have been located in other AREAS over the SIX (b) YEAR period. E



# **PROTECTIVE EQUIPMENT**

For Eyes: Both chemical splash goggles and face shield.

For inhalation: Less than 100 times TLV/TWA (5 mg/m³), use full facepiece respirator with replaceable high efficiency mist filter. More than 100 times TLV/TWA, use positive pressure supplied air respirator.

For Skin: Impervious protective suit plus impervious gloves, boots, full head/face protection.

# **FIRST AID**

Eye Contact: Prompt action is essential. For even minor contact, immediately flush eyes with clean/low pressure/lukewarm water for 15 minutes, while lifting eyelids. Obtain emergency medical treatment.

Inhalation: Prompt action is essential. Immediately move victim to fresh air. Keep victim quiet.. Administer oxygen or artificial respiration as needed. Obtain emergency medical treatment. Skin Contact: Immediately remove contaminated ciothing. Wash skin thoroughly with mild soap/water. Flush 15 minutes with lukewarm water. If sticky, use wateriess cleaner first. Obtain prompt emergency medical treatment.

Ingestion: Immediately administer lukewarm water or milk (pint) if victim is conscious/alert. Do not induce vomiting because of corrosive effects. Obtain immediate emergency medical treatment.

# IN CASE OF SPILL

Prevent-spill from reaching sewer or public waters. Notify appropriate regulatory authorities. Minimize water use in cleanup. Equip cleanup crew with proper protection. Soak up small land spill with inert solids/shovel into suitable disposal container(s). Confine large land spill for recovery/ recycle. On water, contain/recover to minimize dispersion. Disperse nonrecoverable to minimize harm. Dispose in accordance with federal, state and local regulations.

THIS CONTAINER CAN PRODUCE EXPLOSION OR FIRE HAZARD, EVEN WHEN EMPTY. TO AVOID RISK, DO NOT CUT, PUNCTURE, OR WELD NEAR THIS CONTAINER.

FOR INDUSTRIAL USE ONLY CAUTION COMBUSTIBLE

SSC

SURFACTANT

# MAY CAUSE IRRITATION TO SKIN AND EYES.

Do not handle near heat, sparks, open flame

- Avoid contact with skin, eyes and clothing.
- · Wash thoroughly after handling.
- Do not breathe vapors or mist.
- · Use only with adequate ventilation/personal protection.
- Do not swallow.
- Protect from freezing. If frozen thaw and thoroughly mix before use.
   MIX BEFORE USE

EMERGENCY 24 HOUR ANSWERING SERVICE

FLAMMABLE LIQUID

(505) 396-7433







Ed Horst New Mexico Environmental Department P.O.box 26110 Santa Fe, New Mexico 87502

Dear Mr.Horst,

The following report details the procedures and action taken by Pro-Kem, Inc. in cleaning and testing the yard at 2330 South Main Street, Lovington, New Mexico which was formerly occupied by Pro-Kem, Inc. The term of occupation was from August 1986 thru July 1992. Pro-Kem, Inc. is in business of retail oilfield chemical sales and service. From January 1987 through June 1992, Pro-Kem, Inc. blended nearly all of the chemicals it sold. These blends were made from intermediate base products and solvents.

The solvents used were water, naptha (xylene bottoms), isopropyl alcohol (IPA), toluene and methanol. The intermediate bases consist mostly of petroleum distillates along with some phosphoric and phosphnic acids and soaps. We do not handle any material containing heavy metals, however at one time, we did handle a small amount of Zinc Chromate,  $Zn_3(CrO_4)_2$  but this product line was discontinued years ago. What little we did handle was not stored in the yard.

Over a period of six years we had several small leaks from drums stored in the yard but as soon as they were noticed these drums were picked up and redrummed. To my knowledge none of the leaks amounted to more than 3 or 4 gallons and most were smaller than that.

When Pro-Kem, Inc. purchased the present location (2400 South Main Street) and moved everything in July 1992, I contacted Jerry Barnard of Bio Remediation, to bioremediate the aforementioned spills, a place where the diesel fuel tank had leaked and the place where the treating trucks had leaked some corrosion inhibitor while loading the tanks on the trucks. Bioremediation was started the first week in August 1992.



The spot where drums had leaked and where corrosion inhibitor had leaked had dried material (the heavier intermediate base) on top of the caliche and down into it about 1-2 inches. This material was dug out and stored in a drum for analysis. The results of the test on this material is attached (flash point and B-tex).

On the southwest part of the yard, Pro-Kem, Inc. had the following tanks inside a berm with caliche walls:

One 10,000 gallon steel horizontal tank on legs. One 2,000 gallon steel vertical tank on concrete pad. One 800 gallon fiberglass tank on a 4 ft. stand. Four 400 gallon fiberglass tanks on a 4 ft. stand. Drums containing chemicals sat on wooden pallets along the fence.

The 10,000 gallon tank contained naptha which was piped into the buliding. The 2,000 gallon tank contained methanol which was also piped into the building.

Pro-Kem, Inc. contracted Ray Hardy of Pinion Water Well Service to dig up the steel lines with his backhoe. Mr.Hardy dug up the line Saturday August 15,1992. Monday August 17,1992 I talked to Mr.Hardy about the job and he informed me that there was a strong odor from the ditch while he was digging about 60 feet from the building. I went to inspect the backfilled ditch and definitely detected the odor of naptha. Mr.Hardy who has expertise in the make up of piplines, told me the collar leaked because it had been tightened too much and this caused some thread damage. I contacted Jerry Barnard of Bio Remediation to test the area. I contacted Ray Hardy to reopen the ditch from end to end and to dig out a plastic line that had been ... used for a short time which was deeper than the steel line. The ditch was reopened about August 20,1992. Mr.Hardy dug through the caliche fill of about 3 ft. and into the black topsoil 1/2 to 1 foot.

The City of Lovington was contacted and they came to inspect. We removed a small sample of the most contaminated soil, took it next door and put a flame to it to see if it would burn. It would not burm. I informed the city of my plans to bioremediate and they agreed to that plan of action. Bioremediation was started an August 21,1992.



On August 26,1992 Bob Carter, Lovington City Manager, contacted me and said that they were going to have Cardinal Labs of Hobbs N.M. to take a sample from the ditch for B-tex analysis (EPA Method 8020). I agreed with Mr.Carter that those test were needed.

The results of these tests are attached. A Cardinal representitive in the presence of Jerry Banard took two samples from the top of piles of soil beside the ditch. One sample was a composite sample of soil taken at various intervals in a span of 60 ft. labeled "north 1/2" and was actually from the northwest half of the ditch. The other sample was taken in a similar manner and labeled "south 1/2". It was also over a span of 60 ft. This was actually the southeast half of the ditch (nearest the buliding). This procedure was witnessed by Jerry Barnard only.

While the Cardinal representative was there he instructed Jerry Barnard on how to take the next sample which was done on September 18,1992. This procedure was witnessed by me (Gerald Phillips) and Paul Kitchens (property owner). The sample taken by Jerry Barnard was taken after the ditch was closed.

I would like to have it on record that there was a definite odor of naptha in the caliche that was removed from the ditch, but there was no odor in the top soil removed from the very bottom of the ditch directly below where the leaking collar had been. For this reason it is my opinion that the total amount of naptha leaked was less than 30 gallons. If I thought otherwise, I would certainly have kept digging, treating and testing until such time as I felt confident that the contamination had been removed.

The sample Mr.Barnard collected was a composite sample taken at three points along the backfilled ditch. This sample was put in a jar with a lid that sealed tightly and was carried to Cardinal Labs immediatly. The three points where the sample were taken was near the northeast end, near the middle and near the southeast end.

During the time that we were scraping up the dried material from the old yard, I contacted Safety Kleen of Midland, Texas for advise on what to do with the material. One **of t**heir representatives named Brian Ashburn came to inspect the material.



He was not sure that it would be considered hazardous waste and suggested I contact the New Mexico Environmental Dept. I believe this was during the last week in August 1992. Mr. Ashburn showed me the business card of Tom Burt and I made a copy of it. The next day I called Mr.Burt and explained our situation to him. He told me to call 505-827-4300 which I did. At this number I reached Mr.Ron Mitchell and related to him in detail what we had done to clean up the old yard at this point. He told me that Mr.Horst was the person I really should talk to but that he was not in and that he would tell him about my call.

I did not try to contact the Environmental Dept. again until November 11,1992. Again I spoke to Ron Mitchell who just happened to be in the office (November 11 was Veteran's Day). Mr.Mitchell said he had discussed my previous call with Mr.Horst and that he would be in the office the next day. November 12, 1992 I called 505-827-4308 and was told that Mr.Horst would be gone until Monday (November 16). I called November 16 but Mr.Horst was not in. November 17, I contacted Mr.Horst at his office and told him about our efforts to bioremediate the old yard at 2330 South Main. Mr.Horst said that he had two inspectors in the area and that they would be by to inspect that day or the next.

Two inspectors came the next day about 11:30 am. The Sr. inspector was Coby Muckleroy and the other inspector was Mike, but I cannot recall his last name.

Mr.Muckleroy told me after the inspection that I should have contacted them before beginning bioremediation but that at that point he did not see need for further action on our part but that his statement was an opinion at that time and not final.

Pro-Kem, Inc. regrets the procedurel errors made in the process but if a similar situation should arise in the future (heaven forbid) we will know what to do first.

I hope I have satisfactorly related the events pertaining to this matter. If you have further questions, I will be glad to help.

After you read and asses this material and that submitted by Coby Muckelroy, I would apperciate a copy of your final assessment.

Sincerely,

Gerald Phillips





# BIO REMEDIATION

Post Office Box 1539 Lovington, NM 88260

October 12,1992

Re: Pro Kem Inc. Lovington yard closure.

On or about August 1,1992 BPS was contacted by Gerald Phillips with Pro Kem Inc. and asked to assess and treat the Lovington yard for any TPH( total petroleum hydrocarbons) or BTEX (Benzene, toluene, ethyl benzene, ortho zylene) possible contamination.

BES personell found several surface only small spills and a larger area of contamination from a leaking diesel tank that only penetrated about 8 inches below the surface. Work was then started to clean up the stains according to accepted bioremediation processes. this consisted of plowing, treatment with bacteria and fertilizer, and watering.

On August 18,1992 a buried naptha line was remembered and stripped out. There was some contamination in the soil so bioremediation was started on the removed dirt and ditch. At this time the city of Lovington was brought into the picture and the City Manager, Bob Carter, authorized BPS to collect soil samples from the ditch and piled up dirt. The samples were tested by Cardinal Labs of Hobbs and were well under limits for closure of the ditch. We treated for 3 more weeks, just to be sure and then soil tested again. The ditch was then closed and the job completed. S

W Barnard

J.W.Barnard BPS Bioremediation



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PRELIMINARY REPORT									
Company: BPS BIOREMEDIATION Date: 082792 Address: PO BOX 1539 Lab # <u>H1014</u>									
City	/, State: <u>LovmG</u>	ON, NM	<u>88260</u>		•				
Pro: Pro	ject Name: <u>/Roci</u>	tem VA	ARD NM				<u></u>		
Sam	oled by: <u>GP</u>		_ Date:	082692		Time:			
Туре	e of Samples: <u>5</u>	5/L	_ Date: <u>c</u> _ Sample	Condition	1:	[]me:		Units:	p>m_
**** Samp #	******************** Field Code	TRPHC	BENZENE	TOLUENE	ETHYL BENZENE	******** PARA- XYLENE	********** META- XYLENE	ORTHO- XYLENE	MTBE
	NORTH 1/2	: ;	D.333	0.044	0.020	D.133	0,154	3,739	2,001
2	South 1/2		0,241	0.049	0.014	0.041	0.038	0,944	<,001
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Methods - AUTOMATED HEADSPACE GC; INFRARED SPECTROSCOPY - EPA SW-846; EPA METHODS 8020, 418.1, 3540 OR 3510



Methods - AUTOMATED HEADSPACE GC; INFRARED SPECTROSCOPY

- EPA SW-846; EPA METHODS 8020, 418.1, 3540 OR 3510
and operator must design, install and operate an enhanced soil venting system, or other appropriate soil treatment system approved by the division, within 45 days. This system must be capable of reducing soil contamination levels in a timely manner. Soil venting systems are generally appropriate only for use on releases of volatile contaminants.

C. An initial evaluation of the effectiveness of the soil treatment system must be done within 30 days after the system becomes operational and any necessary modifications completed within 15 days. Monthly monitoring must continue thereafter until soils meet the requirements of subsection D below.

D. Remediation of soil contamination will be considered complete when:

(1) soil contamination has been reduced to a level which will not contaminate ground water through percolation or as the water table rises and falls with seasonal fluctuations, and the soil is not a source of potentially explosive or potentially harmful vapors in utilities, basements or other surface or subsurface structures;

and

(2) no highly contaminated soils remain in the ground;

(3) an analysis of what appears to be the most contaminated soil reveals:

(a) the total aromatic hydrocarbon value to be less than 50 ppm and the benzene concentration to be less than 10 ppm when measured using an appropriate laboratory test, or the total aromatic hydrocarbon value to be less than 100 ppm when measured using an appropriate field instrument, in areas where the underlying ground water contains 10,000 milligrams per liter or less total dissolved solids and the contaminated soil is 50 feet or less above the seasonal high static ground water level; and

(b) if the soil was contaminated by diesel fuel, motor oil, heating oil, kerosene, jet aviation fuel or other heavy petroleum product, the total petroleum hydrocarbon value (TPH) is less than 100 ppm using an appropriate laboratory test in areas where the underlying ground water contains 10,000 milligrams per liter or less total dissolved solids and the contaminated soil is 50 feet or less above the seasonal high static ground water level.

E. A report describing the treatment of highly contaminated soil must be submitted to the division pursuant to §1210B(8) as part of the hydrogeologic investigation report. If a hydrogeologic report is not prepared, a separate report describing the soil treatment system design, its initial effectiveness and any -

EIB/USTR-12

XII-14



FINAL ANALYSIS PEPORT

Company: Promkem	Date: 11/20/92
Address: P.J. Box 1506	Lab#: H1084
City, State: Lovington, NM 88260	

Project Name: Project Escation: Old Pro-Ke Sampled by: LB Chalvzed by: MF Type of Samples: Soil				n Yang Date: 11/19/92 - Time: Date: 11/20/92 - Time: Sample Iongition: Caroboarg tube Units: mg/kg, pg/1						
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FlashPoint (F) 154

methods - AUTOMATED HEADSPACE GC: INFRARED SPECTROSCOPY - EPA SW-846; EPA METHODS 8220, 418.1, 3540 OR 3310 - Flashpoint-Pensky Martens Closed Cup

2 pull

Michael R. Fowler

Date 11/20/92



PONAL ANALYEEE FERGRE

Company: Promise late: 11/20/92 Abdress: P.C. Box 1506 _ab#: -1084 Cirv. state: Lovinction. An 23220 Chonset Hare: Protect Location: Did Prommeta Hand Samplet dv: 13 valvos ov: KF Turu v - Sate: 11/19/93 - Tite: Date: 10 19762 - Tipe: Nao of Espaises Suil -Espole lingstring: Espondent twoe - Laites (b/xa, ht/l Bamp Field F Cace ETHYL 2974 META- CRTHO-TRANC BENZENE TOLLIENE ESNZENE (YLENE XYLENE VYLENE WTBE - Eli Pro-rem I. rrt (0.201 -0.101 (0.1001 (0.001)) (0.0006 - 0.0060) (0.006 QC Recovery 1.ES9 1.460 1.460 1.270 1.288 1.295 1.182 : <del>- * *</del> QC Epike ----1.432 1.403 ( 1.408 ) 1.296 | 1.396 | 1.421 1.147 
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FlashPoint (F) 184

Methods - AUTOMATED HEADSPACE 30; INFRARED SPECTROSCOPY - EPA SW-846; EPA METHODS 2020, 418.1, 3540 OR 2510 - Flashpoint-Fensky Martens Blosed Cup

Michael R. Fowler

Date 11/20/92



November 4, 1992

Edward L. Horst Program Manager Hazardous and Radioactive Materials Bureau P. O. Box 26110 Santa Fe, New Mexico 87502

RE: Contamination of soil by Pro-Kem, Inc. Location: 2330 South Main, Lovington, New Mexico

Dear Mr. Horst:

This letter is a written complaint against Pro-Kem, Inc. of Lovington, New Mexico. We have knowledge Pro-Kem has contaminated our property referenced above. We want your department to send an inspector to check the improper way Pro-Kem, Inc. has handled hazardous chemicals and waste, and their attempt at clean up of the underground leaks and spills to our property.

We have enclosed a copy of the letter our attorney has sent Pro-Kem's general manager-partner, Gerald Phillips. Mr. Phillips' attorney has informed us the information requested is not readily available, and the Environmental Improvement Division has been contacted by Pro-Kem with no further action or requirements of your agency having been received by Pro-Kem. Mr. Phillips has been unable to provide us with any documentation of this statement.

Mr. Phillips has admitted over the six (6) year period his business has leased our property there were spills and underground leaks on our property. We <u>assumed</u> Mr. Phillips cleaned our property according to EPA requirements and standards, but as of this date we have been unable to verify or receive documentation of any such cleanups or reports. Pro-Kem, Inc. has a lease on our property thru December 31, 1992, even though they have vacated our property and moved to a new location.

We have enclosed a sketch of our property showing where Pro-Kem had above ground storage tanks, underground lines and a fuel storage tank. There are no concrete pads on our property except the floor of the building, nor was there any drainage system in either yard.

Your immediate attention of this matter and notification of any findings or rulings pertaining to our property would be greatly appreciated.

Sincerely,

Penelope (Penny ) L. Kitchens Route 2 Box 40 CE Lovington, NM 88260









October 12,1992

Re: Pro Kem Inc. Lovington yard closure.

On or about August 1,1992 BPS was contacted by Gerald Phillips with Pro Kem Inc. and asked to assess and treat the Lovington yard for any TPH( total petroleum hydrocarbons) or BTEX (Benzene, toluene, ethyl benzene, ortho zylene) possible contamination.

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J.W.Barnard BPS Bioremediation



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Samp	pled by: <u>GP</u>		Date: _	082692		Time:			
Ana Type	lyzed by: <u>MF</u> a of Samples: Se		_ Date: <u>a</u> Sample	2 <i>82692</i> Condition	<u></u>	Time:		Units:	NDNA
***	****	******	*****	******	********	*******	*******	*******	*******
Sam; #	D Field Code	TRPHC	BENZENE	TOLUENE	ETHYL BENZENE	PARA- XYLENE	META- XYLENE	ORTHO- XYLENE	MTBE
	NORTH 1/2	: ;	0.333	0.044	0.020	0.133	0,154	3.739	2,001
2	South 1/2		0,241	0.049	0.014	0.041	0,038	0,944	<,001
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						*******			

Methods - AUTOMATED HEADSPACE GC; INFRARED SPECTROSCOPY - EPA SW-846; EPA METHODS 8020, 418.1, 3540 OR 3510



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			ΡI	RELIM	INARY	( REP	ORT			
Com Add Cit	$\begin{array}{llllllllllllllllllllllllllllllllllll$									
Pro Pro Sam Ana Typ	Project Name: $C_{1TY} \neq L_{CVINGTON}$ Project Location: <u>Procham</u> <u>YARD</u> Sampled by: <u>JB</u> Date: <u>09/18/92</u> Time: Analyzed by: <u>MF</u> Date: <u>09/21/92</u> Time: <u>1100</u> Type of Samples: <u>soll</u> Sample Condition: <u>GST</u> Units: <u>M9/kg</u>									
Sam #	p F C	ield ode	TRPHC	BENZENE	TOLUENE	ETHYL BENZENE	PARA- XYLENE	META- XYLENE	ORTHO- XYLENE	MTBE
	Pra	HEM YARD	· :	0.169	0-031	20.001	0,007	0.009	0,183	<0.001
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	<u>: GC</u> DC	KECONED	1.61	1.935	2.173 2.009	2,290	2.169	7.167	2.081	1,613
	<u>A</u>	CCURACY	; ; ;	106.0%	108.2%	111.9%	108.5%	108,0%	101.1%	87.6%

Methods - AUTOMATED HEADSPACE GC; INFRARED SPECTROSCOPY - EPA SW-846; EPA METHODS 8020, 418.1, 3540 OR 3510

and operator must design, install and operate an enhanced soil venting system, or other appropriate soil treatment system approved by the division, within 45 days. This system must be capable of reducing soil contamination levels in a timely manner. Soil venting systems are generally appropriate only for use on releases of volatile contaminants.

C. An initial evaluation of the effectiveness of the soil treatment system must be done within 30 days after the system becomes operational and any necessary modifications completed within 15 days. Monthly monitoring must continue thereafter until soils meet the requirements of subsection D below.

D. Remediation of soil contamination will be considered complete when:

(1) soil contamination has been reduced to a level which will not contaminate ground water through percolation or as the water table rises and falls with seasonal fluctuations, and the soil is not a source of potentially explosive or potentially harmful vapors in utilities, basements or other surface or subsurface structures;

and

(2) no highly contaminated soils remain in the ground;

(3) an analysis of what appears to be the most contaminated soil reveals:

(a) the total aromatic hydrocarbon value to be less than 50 ppm and the benzene concentration to be less than 10 ppm when measured using an appropriate laboratory test, or the total aromatic hydrocarbon value to be less than 100 ppm when measured using an appropriate field instrument, in areas where the underlying ground water contains 10,000 milligrams per liter or less total dissolved solids and the contaminated soil is 50 feet or less above the seasonal high static ground water level; and

(b) if the soil was contaminated by diesel fuel, motor oil, heating oil, kerosene, jet aviation fuel or other heavy petroleum product, the total petroleum hydrocarbon value (TPH) is less than 100 ppm using an appropriate laboratory test in areas where the underlying ground water contains 10,000 milligrams per liter or less total dissolved solids and the contaminated soil is 50 feet or less above the seasonal high static ground water level.

E. A report describing the treatment of highly contaminated soil must be submitted to the division pursuant to §1210B(8) as part of the hydrogeologic investigation report. If a hydrogeologic report is not prepared, a separate report describing the soil treatment system design, its initial effectiveness and any

EIB/USTR-12

XII-14

LAW OFFICES

### HEIDEL, SAMBERSON & NEWELL

D. GENE SAMBERSON HICHAEL T. NEWELL

LEWIS C. COX, III

311 NORTH FIRST STREET POST OFFICE CRAWER 1639 LOVINGTON, NEW MEXICO 28260 TELEPHONE (505) 396-5303 FAX (505) 396-5305

October 6, 1992

Mr. Gerald Phillips, President PRO-KEM, INC. Post Office Box 1506 Lovington, New Mexico 88260

Dear Mr. Phillips:

I am writing you on behalf of Paul and Penny Kitchens in connection with their property located at 2330 South Main, Lovington, which Pro-Kem, Inc. is presently leasing from them through December 31, 1992.

We have copies of two (2) preliminary reports prepared on the letterhead of Cardinal Laboratories dated August 27, 1992, and September 23, 1992. We understand these reports are the result of the City of Lovington having caused the samples to be taken and the tests made on the property located at 2330 South Main, Lovington. I am not presently informed of any additional samples to be taken or any plans for further analysis of samples previously taken in connection with the two (2) preliminary reports. Would you advise me whether or not Pro-Kem, Inc. is having any additional samples and testing done or plans to do so. If you have other test results or are in the process of having additional sampling and testing done, please provide us with copies of all reports in connection with such sampling and testing. In addition, I request that you advise me at such time when Pro-Kem, Inc. has completed all remediation efforts in connection with the clean up, removal and disposal of contaminants from the Kitchens property. By reason of the foregoing request, I do not want you to think that the Kitchens are attempting to rush Pro-Kem, Inc. in its efforts to clean up the property; that is not the case. However, once Pro-Kem has completed its efforts in this respect, we do request reasonable access to the property to conduct an environmental survey, including appropriate sampling and testing upon the premises so the Kitchens can be certain that the property is safe for use and occupancy when placed on the market for lease or sale.

In connection with the desire of the Kitchens to have an environmental survey conducted after Pro-Kem, Inc. has completed its clean up, it would be very helpful to us in obtaining that environmental survey to have a list of all chemicals used or placed on the leased premises by Pro-Kem. Inc. during the period it leased the property in question, beginning August, 1986, to present, and also a general description of what Pro-Kem has done in connection with clean up and remediation on the leased premises. Therefore, would you please provide me with the list of all chemicals used or placed on the premises, including, but not limited to, chemicals stored

F.L. HEDEL (1913-1985) Page 2 October 6, 1992 Mr. Gerald Phillips, President

in tanks, chemicals stored in barrels, as well as chemicals used inside any structure located on the leased premises. In addition, would you please provide me a list of tanks Pro-Kem, Inc. located on the leased premises during its tenancy and provide me with a brief description of the tank, size, material of which it is constructed, and what Pro-Kem, Inc. stored in each tank, including, but not limited to, any tanks containing gasoline or diesel fuel. Also, would you inform me what, if any, tanks are or were underground upon the leased premises.

Your early response to the foregoing requests would be greatly appreciated by all concerned.

Very truly yours,

## HEIDEL. SAMBERSON & NEWELL

By C. Hene Samherron

CGS:lt

cc: Mr. and Mrs. Paul S. Kitchens

# Safety & Environmental Solutions, Inc.

September 18, 1998

Mr. Jack Ford Oil Conservation Division 2040 S. Pacheco Santa Fe, New Mexico 87505

Dear Jack:

This letter is to update you on progress of the progress on the Pro-Kem pit closure project in Lovington, New Mexico. At the present time Pro-Kem is in the process of preparing the bottom of the existing excavation to receive a plastic liner as outlined in the work plan.

In response to your letter dated May 28, 1998, regarding secondary containment of chemicals onsite please be advised that the chemicals are stored on wooden pallets, which are placed on pavement in the yard. Continued efforts will be made to place chemicals inside concrete secondary containment as soon as possible.

If you have any questions, please call.

Sincerely,

Bob Allen REM, CET, CES President

BA/baa

505/397-0510

703 E. Clinton Suite 103 Hobbs, New Mexico 88240

**MEMORANDUM OF MEETING OR CONVERSATION** X_TELEPHONE___PERSONAL TIME_ 8:20 (AM)/PM DATE 8/23/95 ORIGINATING PARTY: Put Somehiz - NMOCD Gerald Phillips Pro Kem. Inc. **OTHER PARTIES:** 396 - 7433 SUBJECT: Approval for GW-202 Tank bottom Pit closure. DISCUSSION: Told Gerald discharge his teld Dermitted ~ Alsa him +0 nave. -hr bettern pit tank in East cuth the told property. ] him he 615 wher at would +asubmit la Dlan required w:thin closure permit recleving his proved <u>4 D</u> Geruld remove acky wentd have  $\pm p$ the Junk there is nothing vipe5 -+610 19 him our guidelines addressing JUNK will Permit CONCLUSIONS/AGREEMENTS: Ţ. for draft the GW-202 and Girald will within 60 Days af recieving the crmit Submit +6 closure Dan Sunta Fe. PATRICIO W. SANCHEZ: Para XC: FILE, WAYNE PRICE



### **Pat Sanchez**

From:		Pat Sanchez
To:		Wayne Price
Cc:	1	Jerry Sexton
Subject:		prokem , inc. gw-202
Date:		Monday, August 21, 1995 4:15PM
Priority:	۴.,	High

Wayne - Please provide any comments you have regarding the additional information for Prokem. I have recieved the additonal information from Gerald Phillips. Your response to the relevant information is appreciated!!!!!! Pat Sanchez

From:POSTOFFICETo:Pat SanchezSubject:Registered: Wayne PriceDate:Monday, August 21, 1995 4:31PM

[013] ***** CONFIRMATION OF REGISTERED MAIL ***** Your message:

TO: Wayne Price DATE: 08-21-95 SUBJECT: prokem , inc. gw-202 TIME: 16:18

Was accessed on 08-21-95 16:31

### Pat Sanchez

From:	Wayne Price
To:	Pat Sanchez
Cc:	Wavne Price
Subject:	Pro-Kem GW-202
Date:	Tuesday, August 22, 1995 7:03AM
Priority:	High

I do not have any further comments on DP.

î

Thanks!

### Pat Sanchez

From:Jerry SextonDate sent:Tuesday, August 22, 1995 7:07AMTo:Pat SanchezSubject:Registered: Jerry Sexton

Your message	· •
То:	Jerry Sexton
Subject:	prokem , inc. gw-202
Date:	Monday, August 21, 1995 4:15PM
was accessed on	
Date:	Tuesday, August 22, 1995 7:07AM



# RECEIVED

AUG 21 1995

August 16, 1995

Environmental Bureau Oil Conservation Division

Mr. Patricio W. Sanchez Energy, Minerals and Natural Resources Department Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87504-2088

RE: Discharge Plan GW-202 PRO-KEM, INC. Lovington Facility Lea County, New Mexico

Dear Mr. Sanchez:

The following additional comments and information are pertaining to Pro-Kem's discharge plan:

- A. <u>ITEM X</u> All tanks, containments, valves, drums and both two inch delivery lines are inspected every day and results are recorded weekly.
- B. <u>ITEM XI</u> Pro-Kem, Inc. Contingency Plan: Stop the source of the spill, contain the spill and clean up the spill as per guidelines.
- C. ITEM XII Information enclosed.
- D. ITEM XIII Pro-Kem, Inc. agrees to comply completely with  $\frac{WQCC}{VQCC}$  1-203.

PRO-KEM, INC.

Gerald Phillips President

GP/bw encls.

xc: Mr. Wayne Price, Environmental Engineer

### STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION 2040 S. PACHECO SANTA FE, NEW MEXICO 87505 (505) 827-7131

June 12, 1995

CERTIFIED MAIL RETURN RECEIPT NO. Z-765-962-700

Mr. Gerald Phillips President PRO-KEM, INC. P.O. Box 1506 Lovington, NM 88260

## RE: Discharge Plan GW-202 PRO-KEM,Inc. Lovington facility Lea County, New Mexico

Dear Mr. Phillips:

The NMOCD has received the proposed PRO-KEM Inc. discharge plan application for the facility located in SE/4 NW/4, Section 15, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico. The application filing fee in the amount of \$50 and flat fee of \$1380 was received by the NMOCD along with the discharge plan application. The NMOCD has prepared and sent out the public notice for the PRO-KEM Inc. facility as stated in WQCC section 3-108 and has performed a preliminary review of the discharge plan as proposed by PRO-KEM Inc. as received by the OCD on June 7, 1995.

The following comments and request for additional information are based on the review of the PRO-KEM Inc. application. Please note that unless otherwise stated, response to all comments shall be received and reviewed by the OCD prior to approval of the discharge plan application.

Refer to the application page submitted by PRO-KEM Inc. as signed by Mr. Gerald Phillips on May 24, 1995.

A. UNDER ITEM X. - Submit a procedure outlining routine inspection and maintenance plan to ensure permit compliance.

Mr. Gerald Phillips June 12, 1995 Page 2

- B. UNDER ITEM XI. -Submit a contingency plan for reporting and dealing with clean-up of spills or releases. Include NMOCD Rule 116 and WQCC 1-203 spill reporting measures.
- C. UNDER ITEM XII. Submit geological and Hydrological parameters- NOTE: NMOCD referenced State Engineer records in order to obtain TDS and depth to groundwater in order to publish the public notice for this facility: TDS(total dissolved solids)=100 mg/l and depth to groundwater=26'
- D. UNDER ITEM XIII. Submit a statement agreeing to comply with NMOCD Rule 116 and WQCC 1-203 spill reporting requirements. osk fre CIR where Hermory (23-652) duilless logs

Submittal of the requested information and commitments in a timely fashion will expedite the final review of the application and approval of the discharge plan.

If you have any questions, please feel free to call me at (505)-827-7156.

Sincerely, Patricio W. Sanchez

Petroleum Engineer

xc: Mr. Wayne Price-Environmental Engineer

with 4 mi - record foll water well



G ER. 31.46 108.04 131.56 CON 131.86" 50 00 60' 00 42 56' 18 1 191.77' S. 105 108' - Rolla G. N 60' 1 105' 601 SOUTH ST. 139.41 3 SOUTH 8 ST. 3 633.56' S.89° 47 N.89'54'2. 1466.3 N.0°02' W 275 Larry Pro-Kem, Inc. Property N. 89 47' Other Petroleum Related Businesses in area







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STATE ENGINEER OFFICE



WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1
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· · · · · · · · · · · · · · · · · · ·	(A) Owner of well	Lovington via	Id sorvice	
	Street and Number	<u></u>	مرد و روی وی و به مارور می موجود می و می و اور با مارور و م	
	City	Lovington	State	
	Well was drilled und	er Permit Ng	and is Twp.16 చ	located in the Rge. <u>36 E</u>
	(B) Drilling Contrac	tor <u>Cayton &amp; Port</u> ;	License	No
	Street and Number	Box 1847		
<u> </u>	City	Lovington		w jextco
	Drilling was commer	nced4	July_26	19.55
	Drilling was complete	ed	mly 27	

(Plat of 640 acres)

Elevation at top of casing in feet above sea level______Total depth of well______ State whether well is shallow or artesian______Depth to water upon completion______

Section	2		PRINC	IPAL WATER-BEARING STRATA
No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
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2				
3				
4				
5				

Section	3			RECOR	D OF CAS				
Dia	a Pounds Threads		D	Depth		Turne Shee	Perforations		
in.	ft.	in	Top	Bottom	Leer	Type Shoe	From	То	
7" 09	18	8	0	100	100	nono	<u> </u>	1.00	_
		1				-			

Section 4

### RECORD OF MUDDING AND CEMENTING

Depth	Depth in Feet		Tons	Tons No. Sacks of	Methods Heed
From	То	Hole in in.	Clay	Cement	Methods Used
					۵۰ <u>من المحمد من المحمد من محمد م</u>
<u></u>	·				

Section 5

### PLUGGING RECORD

Name of Plugging Contractor	License	No
Street and Number	City State	
Tons of Clay used	ons of Roughage used	e
Plugging method used	Date Plugged	
Plugging approved by:	Cement Plugs were placed	as follows:
	Depth of Plug	

	Basin Supervisor	No.	From	To	No. of Sacks Used
FOR USE OF	STATE ENGINEER ONLY)				
Date Received	AUG-2-4 1955		•		
	OFFICE GROUND WATEL STOTEMEOR		<u> </u>		
File No.	RODALL, REAL SECTION 26.56 Use	Arm	I	location No.	16.36.15-120

Section 6

LOG OF WELL

Depth in Feet Thicknes		Thickness	<u></u>	Tune of Motorial Encountered				
From	То	in Feet	Color	Type of Material Encountered				
0	2	2		loose roch top soil (when in this area)				
	4	2						
4	8	4		Galiche				
<u> </u>	14	6		incl				
14	22	5		caliche ani sand				
22	24	4		rock				
24	40	16						
40	40	<u> </u>		- oundy clay				
46	74	28		Sond				
74	85	11		gnick sound				
85	100	15		saady elay				
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

d Well Briller 1-0 -----0

(This form to be executed in triplicate)

# WELL RECORD

Date of Receipt	Peb. 3. 1	952		Permit	No. 2 - 133
Name of permitte	e, Hallib	urton 011 We	ll Cementir	g Company	
treet or P.O.,Dr.	wor 1431		, City and StateI	hmoen, Ok	La
. Well location and	description: T	he ahallow	well is loca	ted in NE	
	•	(shallow or artes	an)	267	,
<u></u>	of Section	Z, Township		inge	; Elevation of top
casing above sea	_{level} Not kn	OWILeet; diameter of	hole, <b>10</b>	inches; total de	epth, <b>100</b> f
depth to water up	on completion, .		lling was commer	rced <b>Feb1</b> .	
and completed	Feb.	2, 1 <b>852</b> ;	name of drilling	contractor	ide Tatum
524 W Washi	ngton ; A	ddress, Lovingt	on, New Me:	K109 Driller's Li	cense No
Principal Water-b	earing Strata:				
Depth	in Feet _				
No. 1	100	Thickness	Descript	ion or water-bearing	romation
No. 2	100	45	1.1g	IL POL BON	
No. 3					
No. 4					
No. 5			· · · · · · · · · · · · · · · · · · ·	······································	
8 3	25 8	45 Non	e 45	None	None
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If above construct	tion replaces old	i well to be abandoned	l, give location:	loss not a	op <b>ly</b> . ₁₄ ,
of Section New	s Woll Towns	hip, Ra	nge;	name and address	of plugging contra
·····					
date of plugging			; describe how	well was plugged	:
		·			
		••••••••••••••••••••••••••••••••••••••		FEB 1	8 1952
	<i>ff</i>	<u>pp 7 1952</u>		ARTESIAN WELL	C.R.
	VBLEAT	OFELCE N WELL SUPERVISOR		ROSWELL, NI	
39	1	n an an an ann an Anna Airteanna Anna Airteanna Anna Airteanna		16.36	.15.122

F.H.

1.-1339

2

 5. Log of Well:

1

Depth From	in feet To	Thickness in feet	Description of Formation
0	3		Soft
3	10	1	HOCK
10	20	10	Calioba
20	55	35	Sandatona
55	85	30	Water and
85	100	15	Quicksand
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Claude atum Drille

### Instructions

This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Metro, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered shift d be as complete and accurate as possible.

1-19 18 1352 CONTRACTOR WALL SUPERFECTION

# FIELD ENGR. LOG

STATE ENGINEER OFFICE

## WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Street and Number.     10% South It Mamber.     10% South It Mamber.     10% South It Mamber.       City     Street and Number.     10% South It Mamber.     50% South It Mathematication       Street and Number.     City.     Weil Was difficult one Perturber.     10% South It Mathematication       (B) Drilling Contractor.     City.     Weil South It Mathematication     10% South It Mathematication       (B) Drilling was completed.     Deving ton     Street and Number.     50% South It Mathematication       (B) Drilling was completed.     Drilling was completed.     April 26 19 South It Sout	Section 1			(A) O1	wher of we	an Joł	ເສ ປວ	<b>.</b>				
Otty         Low Max drilled under Permit No.         Low Hardion           Meil was drilled under Permit No.         Judy 4, of Section 15         Two, M33         Rg. 253.           (B) Drilling Contractor.         Cauby Attam         License No. 10.33         Rg. 253.           (B) Drilling was commenced         Judy 16         Loring tom         Judy 172 tom         License No. 10.33           Drilling was commenced         Judy 172 tom         State Webly was drilled under Permit No.         Judy 125 (Judy 125 (Ju		i		Street :	and Numb	er. 190	10_30	uth Main				
Well was drilled under Permit No.     1.40.2020     and is located in the life way for Section 15       IN JULY     Mill W.     Mot Section 15     Twp. 103     Rge. 393       Street and Number     Scienta 15     Twp. 103     Rge. 393       City     Is Drilling contractor.     Club and Lingthy and Section 15     Twp. 103     Rge. 393       City     Is or Site is Marking the line in the section 15     Street and Number.     Scienta 125     19.67       City     Drilling was completed     Arx11.25     19.67       City     Drilling was completed     Arx11.25     19.67       City     Drilling was completed     Arx11.25     19.67       City     Drilling was completed     Arx11.26     19.67       City     Drilling was completed     Arx11.26     19.67       State whether well is shallow or artesian finAldor     Depth in Section 2     PRINCIPAL WATER-BEARING STRATA       No.     Depth in Feet     Thickness in Proceed     Prom     70       1     70     55     15     Tai 2r gen?g     2       3     Internet     Top     Botam     From     To       1     70     55     15     Tai 2r gen?g     2       3     Internet     Top     Botam     From     To <t< td=""><td></td><td></td><td></td><td>City</td><td></td><td>Lov</td><td>dingty</td><td>m</td><td></td><td>State Ilou</td><td>1 Horac</td><td>00</td></t<>				City		Lov	dingty	m		State Ilou	1 Horac	00
Image: Section 4     RECORD OF CASING       Dis     Pounds       Image: Section 3     RECORD OF CASING       Dis     Pounds       Image: Section 3     RECORD OF CASING       Section 3     RECORD OF CASING       Dis     Pounds       Image: Section 4     RECORD OF CASING       Section 5     PLICIPAL WATER-BEARING STRATA       Section 5     PLICOP AND CEMENTING       Section 5     PLUGGING RECORD       Name of Plugging Contractor     City       State of and Number     City       Too     Too of Roughage used       Too of Plugging method used     Too so of Roughage used       Too of Plugging approved by     Tons of Roughage used       Too STATE REGENERIC ONLY     Tons of Roughage used       Too State View of Linear Contractor     Too State View of Linear Contractor       State of Plugging approved by     Tons of Roughage used     Top of roughage       Plugging approved by     Tons of Roughage used     Top of roughage       Plugging approved by     Tons of Roughage used     Top of roughage       Plugging approved by     Tons of Roughage used     Top of roughage       Plugging approved by     Top Advit 1261     Top Advit 1261       Top Advit 1261     Top Advit 1261     Top Advit 1261				Well w	as drilled	under F	'ermit	: No. 1-123	<u>;</u> ;;	and is	ı locate	d in the
(B) Drilling Contractor     U28207 Attoch     License No. 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100					<u>    4                                </u>			of Section	<b>T</b> w	p	Rge	30% ** 32
Street and Number     Street and Ctr Matter Scale       City     Cuty ing for       Defiling was commenced     Art1 25 19 67       Defiling was completed     Art1 25 19 67       State whether well is shallow or artesian shallog     Depth in Feet       No.     Pepth in Feet     Thickness in       No.     Pepth in Feet     Thickness in       No.     Pepth in Feet     Thickness in       Section 3     RECORD OF CASING       Section 3     RECORD OF CASING       Section 4     RECORD OF MUDDING AND CEMENTING       Dia     Threads     Depth       in     Top     Bottom       in     Threads     Depth       in     Top     Bottom       Section 4     RECORD OF MUDDING AND CEMENTING       Doeth in Peet     Daneter       Top     No. Sector       From     Top       Section 5     PLUGGING RECORD       Name of Plugging Contractor.     Contractor.       State     Tops of Roughage used     Type of roughage       Section 5     PLUGGING RECORD       Name of Plugging approved by:     Contractor.				(B) Dr	illing Con	itractor	C.t.n.	ado Tatun	· 1·	License	No. ***	<u>5 35</u>
City     Drilling was commenced     Arril 25     19.67       CPlat of 600 acres)     Contract of 200 acres)     Drilling was completed     Arril 25     19.67       Elevation at top of casing in feet above sea level.     Withows     Top field of water upon completion     70       Section 2     PRINCIPAL WATER-BEARING STRATA     Depth in feet     70       No     Depth in Freet     Depth in Freet     Description of Water-Bearing Formation       1     70     0.5     1.5     Tot gent?n       2     1     70     1.5     Tot gent?n       3     4     1     1     70     1.5       3     1     70     1.5     Tot gent?n       3     2     1.5     Tot gent?n       3     1     10     1.70     1.5       1     70     0.5     1.5     Tot gent?n       3     1     1.70     1.5     Tot gent?n       3     1.70     1.5     Tot gent?n     1.70       10     1.70     1.70     Botom     Feet     Type Shoe       11     70     1.5     Tot gent?n     1.70       10     1.70     1.70     No. sacks of     Methods Used       11     10     1.70     No. sacks of </td <td></td> <td></td> <td>·</td> <td>Street a</td> <td>and Numpe</td> <td>er</td> <td>Lov</td> <td>ng ton</td> <td>iston</td> <td> New</td> <td>a l'hech</td> <td>.00</td>			·	Street a	and Numpe	er	Lov	ng ton	iston	New	a l'hech	.00
Drilling was completed     April 2, 20     19 CT       Bevaltor at top of casing in fact above sees level. Mincorn at top of casing in fact above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the above sees level. Mincorn at the set of the set of the above sees level. Mincorn at the set of the s				Drilling		monred				State	. 25	10 67
(Plat of 60 agree)       Constraining the end over set level. written the rest in the		I		Drilling	y was com	interieu				Aprij	1 26	19 <b>67</b>
Elevation at top of casing in feet above sea terell. WEIRCRM. a table Tetal depth of well of a 2 product term State whether well is shallow or artesian Shallor Depth to water upon completion 70 Section 2 PRINCIPAL WATER-BEARING STRATA No Depth in Feet Thickness in Description of Water-Bearing Formation 1 70 05 25 into central s Section 3 RECORD OF CASING Dia Pounds Threads Depth Feet Type Since Perforations in Top Bottom Feet Type Since Perforations in Top Bottom Feet Type Since Perforations Section 4 RECORD OF MUDDING AND CEMENTING Depth in Feet Diameter Tons No. Sacks of Cement Methods Used Prom To Hole in in Clay Cement Methods Used Section 5 PLUGGING RECORD Name of Plugging Contractor City State Tons of Roughage used Type of roughage Plugging method used Tons of Roughage used Type of roughage Plugging approved by: Cement Visit 200 Date. Received June 190 Date. Received June 200 Dia to 4 -6/30 Use Mathod State June 200 Dia to 4 -6/30 Use Mathod State June 200 Dia term To J	(P)	lat of 640	acres)	sandhear seadt	; was	picee					foreignesses.	1v
State whether well is shallow or artesian.       State whether well is shallow or artesian.       Section 2     PRINCIPAL WATER-BEARING STRATA       No.     Depth in Feet     Thickness in Peet     Description of Water-Bearing Formation       1     70     95     15     Tol 20 open/n       2     3     3     RECORD OF CASING       3     3     RECORD OF CASING       Dia     Pounds     Threads     Depth       in.     ft.     im     Top       Bitom     Feet     Type Shoe     Perforations       Section 4     RECORD OF MUDDING AND CEMENTING       Section 5     PLUGGING RECORD       Section 5     PLUGGING RECORD       Name of Plugging Contractor     City       State and Number     Top of roughage       Plugging approved by:     Date Plugged     19       U2 3 Hly 6 - Athl 1261     U2 3 Hly 6 - Athl 1261     U2 3 Hly 6 - Athl 1261       U2 3 Hly 6 - Athl 1261     Use     Lacetion No. 16, 76, 7110	Elevation	i at top c	of casing in	n feet above	sea leveli.	urlanow	Mare 1	Total dep	ith of w	/ell <u>Cont 8, 28 -</u>	<b>15</b> (7,80)	<u>100 0050</u>
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No.     Depth in Feet From     This is in To     Description of Water-Bearing Formation       1     70     05     25     Thi or gen?g       2     3	Section 2			PI		WATER-F	EARI	IG STRATA	··· ··· · · · ·	·····		· · · ·
1       70       25       151 ar gentin         2       3       3       RECORD OF CASING         Dia       Pounds       Threads       Depth         in.       it.       in       Top         Bin.       it.       it.       it.         Bin.       it.       it.       it.         Bin.       it.       it.       it.         Bin.       It.       it.       it.         Bin.       Depth in Feet       Diameter       Tons         From       To       Hole in in.       Clay       Cement         Section 5       PLUGGING RECORD       No. Sacks of Clay       Sate         Section 5       PLUGGING RECORD       State       Dons of Roughage used       Top of roughage.         Plugging approved by:       <	No	Depth i From	in Feet To	Thickness in Feet	n	,	Desc	ription of Water	-Bearing	Formation		
2       3       4         3       3       RECORD OF CASING         Dia       Pounds       Threads       Depth       Feet       Type Shoe       Perforations         in.       ft.       in       Top       Bottom       Feet       Type Shoe       Perforations         Section 3       RECORD OF MUDDING AND CEMENTING       Top       Top       Top       Top         Section 4       RECORD OF MUDDING AND CEMENTING       Methods Used       Top       Top         Section 5       Diameter       Tons       No. Sacks of Carretor       Methods Used       Top         Section 5       PLUGGING RECORD       Name of Plugging Contractor       License No	1	70	85	15		or san	* <u>n</u> ````	, , , , , , , , , , , , , , , , , , ,		,		
3       4         4       5         Section 3         RECORD OF CASING         Dia       Pounds       Threads       Depth       Feet       Type Shee       Perforations         in.       it.       in       Top       Botion       Feet       Type Shee       Perforations         Soction 4       RECORD OF MUDDING AND CEMENTING       Depth in Feet       Diameter       Tons       No. Sacks of Cament       Methods Used         Soction 5       PLUGGING RECORD       Methods Used       Section 5       PLUGGING RECORD         Name of Plugging Contractor       City       State       State         Tons of Clay used       Tons of Roughage used       Type of roughage       19         Plugging method used       Date Plugged       19       Cement Plugs were placed as follows:         Main Supervisor       Basin Supervisor       No.       Top       No. of Sacks Used         Main Enceived       Image: State S	2	· · · · · · · · · · · · · · · · · · ·					· <b>y</b>		•••••			
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in.     it.     in.     Top     Bottom     Pree     Pron     To       Section 4     RECORD OF MUDDING AND CEMENTING     Image: State	Dia	Pounds	s   Thre	ads	Depth	Fr	-	The Shae	1	Perfora	tions	•,
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Depth in Feet       Diameter       Tons       No. Sacks of Clay       Methods Used         From       To       Hole in in.       Clay       Cement       Methods Used         Section 5       PLUGGING RECORD       License No.       Section 5         Name of Plugging Contractor       License No.       State         Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:       No. of Sacks Used         Basin Supervisor       No.       Depth of Plug       No. of Sacks Used         U2 :3 Hb 6- Abit       U361 V       Methods V       Methods V         File No.       4       -6/130       Use       Location No. (W. 26. /2.//10	Section 4	4	,	REC	ORD OF N	NUDDING	3 ANI	CEMENTING		·	<u></u>	
Prom       IO       PLUGGING RECORD         Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No.         Date Received       Mill         UZ :3 HU 6- AUH 2961       Mill         File No. $4 - 6/30$	Depth From	1 in Feet	Diame Hole i	eter Tor	ns No. av (	Sacks of Cement	£	, , , ,	Metho	ods Used	· · ·	
Section 5 Name of Plugging Contractor Street and Number Tons of Clay used Plugging method used Plugging approved by: $\hline Date Plugged$ $\hline Date Plugged as follows:$ $\hline No. 05 Sacks Used$ $\hline Mol \\ \hline From \\ To \\ \hline No. 05 Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline Depth of Plug \\ \hline No. of Sacks Used$ $\hline Mol \\ \hline Depth of Plug \\ \hline De$	אריים איז					1			· · · · · · · · · · · · · · · · · · ·			· ·· ·
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Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       Cement Plugs were placed as follows:         No.       Depth of Plug         No. of Sacks Used       Mill         Date Received       Mill         U2 :3 HØ 6- AUH 1961       Location No. 14, 36, 110         File No.       Location No. 14, 36, 110		1							ناریب د ^ر محمد روانه هر	. <u></u>	<u></u>	<u> </u>
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Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No.         Depth of Plug       No. of Sacks Used         Date       Received         Date       Received         UZ:3 HU 6- AUH 1961       Use         UZ:3 HU 6- AUH 1961       Use         US: File No       Location No	,		·		······				• <u>•••••</u> •••••••			* <del>***</del> *****************
Name of Plugging Contractor       License No.         Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage.         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No. of Sacks Used         No.       Pepth of Plug       No. of Sacks Used         Date Received       Image: Market of M	Section 5	j			PLU	IGGING	RECC	<b>)RD</b>		· ·		م به معالم الم
Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:       19         Basin Supervisor       No.       Depth of Plug       No. of Sacks Used         Basin Supervisor       No.       Depth of Plug       No. of Sacks Used         Date. Received       Mill       Mill       Mill       Mill         U2:3 Hb       6- Albill       1961       Mill       Location       No.       10/2 1/2 1/2         File No. $\angle$ -6/30       Use       Mill       Location       No.       10/2 1/2       11/0	Name of	i Pluggin	ig Contrac	ctor		·····			Lie	cense No		
Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No.       Depth of Plug         No.       Depth of Plug       No. of Sacks Used         Date Received       If If the first of the fir	Street ar	nd Numb	ber	(	•	Çit	. <b>у</b>		Sta	ate		
Plugging method used     Date Plugged     19       Plugging approved by:     Cement Plugs were placed as follows:     Image: Plugged     Image	Tons of u	Clay use	d	Tons o	f Roughag	se usea	·····	'ly	pe of ro	oughage		
Plugging approved by: Basin Supervisor Basin Supervisor Date Received $\frac{1}{2}$ $\frac$	Plugging	; methoa	used					Date Flu	Jgged			
Basin Supervisor     No.     Depth of Plug     No. of Sacks Used       Model     From     To     No. of Sacks Used       Date. Received     Model     Model     Model $02:3 \text{ WV} 6- \text{AVM} 1961  Value     Location No.     Model       File No.     4 - 6130     Use     Model  $	Plugging	; approve	ed by:	2 - - -			·	Cement Fiu	gs were	placed as 1	iollows:	•
File No. $4 - 6130$ Use $M_{12}$ Location No. $M_{12}$ $M_{12}$ $M_{12}$	- 0/20 <b>- 10</b> - 10		· ·····	Basin	Supervisor	}	No.	Depth of P From	'lug To	No. of f	Sacks U	sed
Date Received $1000000000000000000000000000000000000$	and the second	FOR U	SE OF STA	TE ENGINEE	R ONLY				····	· <del>· · · · · · · · · · · · · · · · · · </del>		
Date Received $\frac{101}{101}$	$1 \le 1$	)*14 - 214 - 24 *	tr i fitte		jing -				<u> </u>		·	
1000000000000000000000000000000000000	Date	Received	1- <del>3811-36</del>	<u></u>	· 							
File No. $\angle -6130$ Use $AUH 2961 \cup AUGPRE Location No. 16. 36. 15. 110$	, S.		07 m	Haddin Konda	10							
File No. 4 -6130 Use Norm. Location No. 14. 36.13.110			ບເ.ິ	NA e-yan	2961	, - <b>J</b> _						
	File No		-61:	30	IIse	Aler:	27.	Locati	on No	16. 56.	15/	10

Section 6

**ند** ا

# LOG OF WELL

Depth i	Depth in Feet		Color	Type of Material Encountered			
	ہر 10			6°			
		2	req	109 8011			
	50	1:5	white	Callicho and mode			
	03	35	vink	Band Stone			
	85	5	oink	Guteksand			
₽₽₩₽₽ <u>₩₽</u> ₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩							
·····							
• · · · · · · · · · · · · · · · · · · ·		<u>,</u>	an a				
<b></b>		+		· · · · · · · · · · · · · · · · · · ·			
······································							

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

- Claufe Jatume



STATE ENGINEER OFFICE



INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

WELL RECORD

с.		÷		1
<b>D</b> E	·C T	10	ทา	
_				_

(A) Owner of well City of Lovington Street and Number 30% 265
City Lovington State New Nexico
Well was drilled under Permit No. L-1704 and is located in the <u>SW 4 ME 4 NW 4</u> of Section 15 Twp. 16 S Rge. 36 E (B) Drilling Contractor Quarles Drilling Co.License No. WD-144 Street and Number 545
 City Lovington State New Mexico
Drilling was commenced.
Drilling was completed July 10 19 56

(Plat of 640 acres)

Section 2

PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation				
1	70	120	50	Water Sand				
2								
3								
4	· · · · · · · · · · · · · · · · · · ·							
5								

Sect	ion 3	n 3 RECORD OF CASING								
Dia		Pounds	Threads	Depth		Foot	Tune Shee	Perforations		
ir	1.	ft.	in	Тор	Bottom	reet	Type Shoe	From	ј То	
12 3/	1.	33	Welded	0	190	190	noue	72	171	
0.	D.									

Section 4

RECORD OF MUDDING AND CEMENTING

Dection 1				
Depth in Feet From To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
		<u> </u>		

### Section 5

### PLUGGING RECORD

	License No.	
City	State	
Tons of Roughage used	Type of roughage	
	Date Plugged	
C	ement Plugs were placed as	follows:
		CityState Tons of Roughage usedType of roughage Date Plugged Cement Plugs were placed as

	No.	Depth	or Plug	No. of Sacks Used
Basin Supervisor		From	То	
FOR USE OF STATE ENGINEER ONLY				
OFFICE PIL				
File No. 2-1704 States Wiscon Use Dom	1.	L	ocation No.	16.36.15.123

Section 6

45

LOG OF WELL

Depth i	in Feet	Thickness in Feet	Color	Type of Material Encountered
0	 J.	2	· · ·	Lod 1
6	22	76		Caliche cap rock
22	25	3		
25	21	6	<u> </u>	
31	40	9		Soft rock and Sand
40	50	10		Dry Sond and Gravel
50	70	20		Sand & White rock
70	120	60		Water Sand
120	120	10		might Cond
130	170	10		Linter Soud
170	180	10		Coorde South
180	188	8		Sandr Clar
188	190	2		Clay & Bock
				Depth to K
				Elev of K
<b></b>				
and the second				
<u></u>				
	· · · · · · · · · · · · · · · · · · ·			Hyster and a second
<u></u>				
<u></u>				
				Substation processing and a substation
<b> </b>				hear and a
and a second state of the			a na ana ana ana ana ana ana ana ana an	Beneric and the second s
<b></b>			······································	Calca
<del> </del>		····		

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a trile and correct record of the above described well.

Sulling Co. Quarles Well Driller

L-1704

16.36.15.123

#### 1.1.1 Form WR-23



STATE ENGINEER OFFICE

### WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed. Section 1

	(A) Owner of well Jack Clayton	
	Street and Number Pox 72I City Lovington	State New Kexico
	Well was drilled under Permit No. L-4249	and is located in the Twp. 16 S Rge. 36 E
	(B) Drilling Contractor P & P Drilling Co. Street and Number I ¹ 21 S. Love	License No. MD-281
	City Lovington	State <u>New Mexico</u>
	Drilling was commenced Nov 9	

(Plat of 640 acres)

Elevation at top of casing in feet above sea level... Shallow 74 ft. State whether well is shallow or artesian. ......Depth to water upon completion.

Section	2		PRINCIPAL	WATER-BEARING STRATA
No.	Depth in Feet From To		Thickness in Feet	Description of Water-Bearing Formation
1	7).	96.		
2				
3				
4				
5				

Section 3	ion 3 RECORD OF CASING									
Dia Pounds	Dia	Pounds	Threads	Depth		Foot	Tune Shee	Perforations	ations	
in.	ft.	in	Тор	Bottom	reet	Type Shoe -	From	To	_	
									_	
		None							_	

Section 4

### **RECORD OF MUDDING AND CEMENTING**

Depth From	in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
		7"			

### Section 5

### PLUGGING RECORD

Name of Plugging Contractor		Lic	ense No
Street and Number	City	Sta	te
Tons of Clay usedTons	of Roughage used	Type of ro	ughage
Plugging method used		Date Plugged	
Plugging approved by:		Cement Plugs were	placed as follows:
Bosir	Supervisor	o. Depth of Plug	No. of Sacks Used

		-	110111	10	
	FOR USE OF STATE ENGINEER ONLY				
Date	Received				
	25:30 110 110 St. 8: 55				

File No. X-4249

Use Dam Location No. 16. 36. 15 141

Section	6	

LOG OF WELL

<b>&gt;</b>	
I	

Depth	Depth in Feet		Color	Type of Material Encountered		
From	То	in Feet	Color	Type of Material Encountered		
0	3	·		Soil		
8				icock		
0	24					
24	69			Sandy Clay		
69	74			Heter Sand		
74 82	62 o).			Sandy Clay		
<u> </u>						
- 94	96			Sandy Clay		
			······			
<u></u>						
••••••••••••••••••••••••••••••••••••••						
••••••••••••••••••••••	ļ	<u></u>				
				<mark>, , , , , , , , , , , , , , , , , , , </mark>		
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		1				
			ļ			

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well,

Otio V Well Driller Pruitt-

# STATE ENGINEER OFFICE WELL RECORD

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200 2

Revised	June	1972
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5	4.1	- 1		۰.
	1	•		1.
	÷	•		7 Y

1 CENERAL INFORMATION

(A) Owner of	well Den	ver B. N	orthrip			Owner	's Well No	
Street or	Post Office Ac	Idress <u>P.O</u>	Box 19	3				
City and	StateO	vington,	New Mez	100 88	3260			
Well was drilled	l under Permit	No <b>L</b>	8186		and is locate	d in the:		
a	¼ ¼	4 <u>NW</u> 4 <u>N</u>	E ¼ of Sec	tion <u>15</u>	Township _	16S Rang	ge <u>36E</u>	N.M.P.M
b. Tract	No	of Map No	•	of the				
c. Lot N	0	of Block No.	V	of the				
Subdi	vision, recorde	d in <b>Le</b>	a	C	ounty.			
d. X= the		_ feet, Y=		feet, N.	M. Coordinate	e System		Zone in Grant
(B) Drilling (	Contractor	Abbott	Bros.			License No	ID-46	
Address	P.O. Bo:	х 637. Н	obbs. Ne	w Mexico	8824	.0		
Drilling Began	1/11/8	0	nlated 7/7	2/80	Type tools	Cahle	Size of hole	8 in
Drining Degan		<u> </u>	pieteu	<u>,</u>				III.
Elevation of la	nd surface or _			at wel	is	ft. Total depth	of well $\underline{-++22}$	ft.
Completed wel	llis 🔀 s	hallow 🗖	artesian.		Depth to wate	er upon completion	of well <u>63</u>	ft
Dend		Sec	tion 2. PRIN	CIPAL WATER	R-BEARING S	STRATA		
From	To	in Feet	s E	Description of V	Water-Bearing	Formation	(gallons per n	rield ninute)
63	125	62	Sa	nd				
				R, · B, · · · · · · · · · · · · · · · · ·				
			Sectio	n 3. RECORD	OF CASING			
Diameter	Pounds	Threads	Depth	in Feet	Length	Type of Sho	e Perfo	ations
(inches)	per toot	per in.	Тор	Bottom	(feet)		From	То
6 5/8	13	Welded	0	125	125	None	75	125
	<u>}</u>							
L		Seci	tion 4 RECO			MENTING	<b>_I</b>	
Depth	in Feet	Hole	Sacl		ubic Feet	Metho	d of Placement	<u> </u>
From	То	Diameter	of M	ud o	Cement			<u> </u>
	<b>_</b>	-						<u></u>
	] ^{*,}					<u></u>		
L <u>, , , , , , , , , , , , , , , , , , , </u>			<u></u>	<u>1</u>	I			
•••			Sectio	on 5. PLUGGI	IG RECORD			
Plugging Cont	ractor				r=			

Address	No	Depth	in Feet	Cubic Feet
Plugging Method	NU.	Тор	Bottom	of Cement
Date Well Plugged	1			
Plugging approved by:	2			
	3			
State Engineer Representative	.1			

Date Received January 21,1980

FOR USE OF STATE ENGINEER UNLY

Quad ______ FWL _____ FSL ____

Use _____ DOM. ____ Location No. 16.36.15.21000

 •	1

Section 6. LO	G OF	HOLE
---------------	------	------

			Section 6. LOG OF HOLE			
Depth in Feet Thickness Color a		Thickness	Color and Type of Material Encountered			
From	То	in Feet				
0	1	1	Surface soil			
<u> </u>	26	25	Caliche			
26	63	37	Sand-tight			
63	104	41.	Sand-water			
104	125	21	Sand-loose			
·						
	• •	،	· · · · · · · · · · · · · · · · · · ·			
		Section	7. REMARKS AND ADDITIONAL INFORMATION			

ROSWELL, N. M. 8 HA 15 KH 2

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Murrell Abbett Driller 7.B

**INSTRUCTIONS:** This fo of the State Engineer. Ai drilled, repaired or deepened

ould be executed in triplicate, preferably typewritten, and submitted lions, except Section 5, shall be answered as completely and accurate n this form is used as a plugging record, only Section 1(a) and Section

appropriate district office s possible when any well is need be completed.

# STATE ENGINEER OFFICE



WELL RECORD INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Form WR-23

dei

5.4.

	(A) Owner of well Rafael R. Pena	
	Street and Number 210 W. Skally	
	City Hobbs	State
	Well was drilled under Permit No 1-382	5and is located in the
		15 Twp. 16 8 Rge. 36 E
	(B) Drilling Contractor Cayton Drillin	g Company License No. MD-183
	Street and NumberBeg 1021	
	City Levington	State New Mexico
200 B	Drilling was commenced	April 7 19 58
	Drilling was completed	April 8 19.58
Uriat of 640 acro	25)	

Section	2		PRINC	IPAL WATER-BEARING STRATA		
No Depth in		in Feet	Thickness in	Description of Water-Bearing Formation		
	From	То	Feet			
1	60	70	10	Water Sand		
2	76	88	12	Qu <b>ick Sand</b>		
3						
4						
5						

Section 3	3			RECOR	D OF CAS	SING			
Dia Pounds	Threads Depth		epth	Tret	Tupo Shee	Perforations			
in.	ft.	in	Тор	Bottom	reet	Type Shoe _	From	То	-
									-
									-
									-
							· · · · · · · · · · · · · · · · · · ·		-
	I	I	1	1		1			

Section	4
---------	---

RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter	Tons	No. Sacks of		Methods Used			
From	То	Hole in in.	Clay	Cement					
20	100	7 in.	100 1b	S	I	Dry Min			
······································	-								
		] ]		 	<u> </u>				
Section 5				PLUGGING	RECO	RD			
Name of	Plugging	Contractor					]	License No	
Street and Number					y State				
Tons of (	Clay used		<b>Fons of R</b> o	ughage used			Type of	roughage	
Plugging	method u	used				Date	Plugged.		
Plugging	approved	i by:		·		Cement	Plugs wei	re placed as follows:	
					No	Depth	of Plug	No. of Sacks Used	
			Basin Supe	rvisor		From	То	NO. OI DACKS USED	
	FOR US	E OF STATE EN	GINEER ON	ILY					
							[		
Date Received									
								MAY ? 1958	
				$\cap$				OFEICE	
File No	1 - 38	125		Ilso stam		Lo	cation 986	UNDWATE CUR Dun 2 1	

16,36,

1.5
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there is

LOG OF WELL

Depth From	in Feet	Thickness in Feet	Color	Type of Material Encountered
	10			o ad J
1	6	5		Reck
6	12	6		Boulder
12	18	6		Caliche
18	60	12		Sand
60	70	10		Water Sand
70	76	6		Sandy Clay
76	68	12		Quick Send
88	200	12		Sand
				· · · · · · · · · · · · · · · · · · ·
	1			
	1	•••		.:
	• •	ť,		
	. 1	1		
			÷ .	

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

ATER WELL DRILLING COMPANY Well Driller cy 8 m. 19 (9) :: : • 14 J Y 1 e de par •• ;; 5 ï ÷ . 0 ٠ . . . . ٠

## FORM WR-FIELD ENGR. LOG

STATE ENGINEER OFFICE



#### WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1	(A) Owner of well been bleen bleen	
	Street and Number <u>Box 7259</u>	Sen Sext oo
	Well was drilled under Permit No.         L-21.12         an           14         14         14         15         Twp.         16	d is located in the S Rge. 10 2
	(B) Drilling Contractor <u>FARE Brilling Go.</u> Lice Street and Number 1121 G. Love	nse No
	CityStateState	New Hextco
	Drilling was commenced	
	Drilling was completed.	

(Plat of 640 acres)

Eli ft. State whether well is shallow or artesian Shallow Depth to water upon completion.

Section	2		

#### PRINCIPAL WATER-BEARING STRATA

No.	Depth From	in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	81.	100		
2		h 2 22		
3				
4				
5				

Section 3 RECORD OF CASING								
Dia Pounds		Threads		Depth		Turo Shaa	Perforations	
in.	ft.	in	Тор	Bottom	reet	Type Shoe _	From	То
		i one						

Section 4

#### **RECORD OF MUDDING AND CEMENTING**

Depth in Feet		Diameter	Tons	No. Sacks of	Methods IIsed
From	То	Hole in in.	Clay	Cement	menous used
		16	3 Hacks		
<u></u>					

Section 5

Name of Plugging Contractor		License No	
Street and Number	City	State	
Tons of Clay used		Type of roughage	
Plugging method used	Dat	e Plugged	19
Plugging approved by:	Cemen	t Plugs were placed as follows:	

	No.	Depth	of Plug	No. of Sacks Used
Basin Supervisor		rrom	10	
Date Received CE .8 III 1- JEU 6561				
File No <u>2412</u> Use Jr		L	ocation No	. 16.36.15.211

- •	
Section	6

LOG OF WELL

Depth in Feet		Thickness	Thickness		Turne of Meterial Encountered
From	То	in Feet	Color	Type of Material Encountered	
	2			(iot)	
2	ć			rictie nock	
ú	18				
18	23			Polder	
55	?4			Sandy Jay	
14	77			ater Sand	
77	81,			Cardy Clay	
ėl,	95			Quick land	
9 <u>5</u>	10			Sand	
<u></u>				······	
	}				
			· · · · · · · · · · · · · · · · · · ·		
			, <u>, , , , , , , , , , , , , , , , , , </u>		
			/		
<b></b>					
			,		
	-				

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Otis V. Prutt-Well Driller

#### ú, Form WR-23

## 



## STATE ENGINEER OFFICE

#### WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1
-----------

 (A) Owner of well <b>Urs.</b> Loon <b>lice</b>	
Street and Number	
City Lovinston	State
Well was drilled under Permit No	and is located in the
14 HM	
(B) Drilling Contractor E. B. Brilling Contractor	License No. 241
Street and NumberII21.S. Love	
 City Lovincton	State
Drilling was commenced Lay. 7.	
Drilling was completed	19

(Plat of 640 acres)

State whether well is shallow or artesian Shallow Depth to water upon completion 5

|--|

#### PRINCIPAL WATER-BEARING STRATA

No	Depth in Feet		Thickness in	Description of Water-Bearing Formation	
110.	From	То	Feet		
1	50	65			
2		1605			
3	.,				
4					
5					

Section 3	ection 3 RECORD OF CASING								
Dia	Pounds	Pounds Threads		Depth		Tuno Shoo	Perforations		
in.	ft.	in	Top	Bottom	reet	Type Snoe	From	То	
				103	7.93		ŝĊ	100	
								***	

Sect	ion	4
		-

#### RECORD OF MUDDING AND CEMENTING

Second 1					
Depth From	in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
			L back		
	1				

Section 5	PLUGGING REC	ORD	
Name of Plugging Contractor		License No	
Street and Number	City	State	
Tons of Clay used	Tons of Roughage used		
Plugging method used		Date Plugged	
Plugging approved by:		Cement Plugs were placed as fo	llows:

	No	Depth	of Plug	No. of Spoke Head
Basin Supervisor		From	То	IVO. OF BACKS USED
Date Received $ \frac{301410}{321410} \frac{301410}{32140} $ $ \frac{301410}{32140} \frac{30140}{32140} $ $ \frac{301410}{32140} \frac{30140}{32140} $ $ \frac{301410}{32140} \frac{30140}{32140} $				
File No. L-5129 Use Dom	ı	L	ocation No	16.36.15.211

LOG OF WELL

Depth	in Feet	Thickness	Color	Type of Material Encountered
From	То	in Feet		
6				5011
:				
20	50			Dome Scould
-50 -50	<del>65</del>			
				75
 	85 <del>TGO</del>			Sandy Ulay Nater Sand
100	103			Sandy Glay
····				
1888-14				
	• 			
		····		
				······································
<u>₩</u>				
<u></u>				
	-			
Management of the Phylocol I with the second			9	
-				
				· · · · · · · · · · · · · · · · · · ·

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well. - h

Otis H. Pruett

## Form WR-23

# EIELD ENGR. LOG





#### WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1			
		(A) Owner of well <b>JUNE G. IUNELL</b>	
		Street and Number	و د و به ماه و المحکوم و محکوم می و محکوم و محکوم و به محکوم و
	Í	City LOVINGTON	State
		Well was drilled under Permit No. L-5673	and is located in the 
	<u> </u>	(B) Drilling Contractor P & P Drilling Co.	License No. wn
		Street and Number II2I S. Love	
	·	City Lovington	State New Mexico
		Drilling was commenced June 25	
		Drilling was completed	1965

(Plat of 640 acres)

Section	1 <b>2</b>		PRINCIPAL	WATER-BEARING STRATA
No. Depth		in Feet	Thickness in	Description of Water-Bearing Formation
	From	То	reet	
1	67	100		
2				· · · · · · · · · · · · · · · · · · ·
3				· · · · · · · · · · · · · · · · · · ·
4				
5				

Section 3 RECORD OF CASING									
Dia	Pounds	Threads	Depth		Fact	Tuno Shoo	Perforations		
in.	ſt.	in	Top	Bottom	reet	Type Silve _	From	То	
65/8			0	100	100				
	****							······································	

Section 4

#### RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter	Tons	No. Sacks of	Methods Used
From	То	Hole in in.	Clay Cement		Metilous Useu
······································					

Section 5 PLUGGING	RECO	RD			
Name of Plugging Contractor			L	icense No	
Street and Number City	y State				
Tons of Clay used		T	ype of r	oughage	
Plugging method used		Date P	ugged		
Plugging approved by:		Cement Ple	ıgs were	e placed as follows:	
Basin Supervisor	No.	Depth of From	Plug To	No. of Sacks Used	
FOR USE OF STATE ENGINEER ONLY BOLLED VIEW HEATENING Date Received 51:8 WY ZI TOP 5951				· · · · · · · · · · · · · · · · · · ·	
File No. L - 56.73 Use Der-	12	Locat	ion No.	16.36.15-211	

Nom. U.K.

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Depth in Feet		Thickness in Feet	Color	Soil Type of Material Encountered			
3	1410			Clichie			
14 67	67 100			Sand & Water			
<b></b>							
	·						
		1					
<b>ð fi í Sefan ún e</b> ð an stað í að skildi kan stiffarm.	= = ============================	-	and an and the second				

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

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Well Driller

Section 6



#### WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1	
I	(A) Owner of well
	Street and Number
	City State
	Well was drilled under Permit No.
	(B) Drilling Contractor
	Street and Number
	City State
	Drilling was commenced 7 = 30 19 59
	Drilling was completed 19 19

(Plat of 640 acres)

State whether well is shallow or artesian ______ Depth to water upon completion ______

Section	2		PRINCIPAL WATER-BEARING STRATA					
No.	Depth i	n Feet	Thickness in	Description of Water-Bearing Formation				
	From	То	reet					
1		6.4	•	dates to 3				
2	• •			A general web and the second				
3	110	11	•	terrent.				
4								
5								

			RECORI	DRD OF CASING				
Pounds ft.	Threads in	Depth		Feet	Two Ches	Perforations		
		Top	Bottom	reet	Type Shoe	From	То	
			12.	100		f _	- <b>1</b> • ).'	
	Pounds ft.	Pounds Threads ft. in	Pounds Threads De ft. in Top	RECORI	RECORD OF CAS       Pounds ft.     Threads in     Depth Top     Feet       Image: Colspan="2">Image: Colspan="2">Feet	RECORD OF CASING         Pounds ft.       Threads in       Depth       Feet       Type Shoe       -         Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Threads in         Image: Colspan="3">Image: Colspan="3">Threads in         Image: Colspan="3">Image: Colspan="3">Type Shoe         Image: Colspan="3">Image: Colspan="3">Type Shoe         Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Type Shoe         Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Type Shoe         Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Type Shoe         Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Type Shoe         Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Type Shoe         Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3"         Image: Colspan="3">Image: Colspan="3"         Image: Colspan="3">Image: Colspan="3"         Image: Colspan="3"       Image: Colspan="3"         Image: Colspan="3"       Image: Colspan="3"       Image: Colspan="3"         Image: Colspan="3"       Image: Colspan="3"       Image: Colspan="3"         Image: Colspan="3"       Image: Colspan="3"       Image: Colspan="3"       Image: Colspan="3"         Image: Colspan="3"       Image: Colspa="3"       Image: Colspan="3"	RECORD OF CASING         Pounds ft.       Threads in       Depth Top       Feet       Type Shoe       Perfo         Image: Shoe       Image: S	

Depth in Feet	Diameter	Tons	No Sacks of			
From To	Hole in in.	Clay	Cement	Methods Used		
		···=======				

Section 5

Name of Plugging Contractor		License No.	
Street and Number	City	State	
Tons of Clay used	fons of Roughage used	Type of roughage	
Plugging method used		Date Plugged	
Plugging approved by:		Cement Plugs were placed as follows	:

Basi	n Supervisor	No.	Depth From	of Plug To	No. of Sacks Used
FOR USE OF STATE ENGINE Date Received	<b>ER ONLY</b>				
91 :8 11 S-1	ANI 6351				
File No. <u>4 565</u>	Use	) _{0 14}	L	ocation No	16 30 5 2112

ł

LOG OF WELL

Depth	in Feet	Thickness	Color	Type of Material Encountered
# TOM		in reet		
<u> </u>		1	So11	
	£;.	3	Rocit	
<u></u>	20	16	Calchie	
- 255	70	<u>190</u>	Jany Jlay	
70	26	G	Jeter Jond	
176	<u></u>	8	Sandy Cley	
<u> </u>	96	12	guiel den	
<u>96</u>	<u></u>	16	San'y Glej	
1111	111	Č.	Sand	
110	120	2	Sand Loek	
			· · · · · · · · · · · · · · · · · · ·	
	<u>+</u>			
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		<u> </u>		
-				
<u> </u>				

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Krady Backies_ Well Driller

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Note- This wold was reamed to accompodate a big Jet purp. P. Bill Baggett of Lea Cas requested and formation oversize hole.

# WELL RECORD

Da	te of Receipt
	Name of permittee,
St	reet or P. O. Box 791
1.	Well location and description: The Shellof well is located in ME 4, 14
	casing above sea level, feet; diameter of hole,
	depth to water upon completion,63 feet; drilling was commenc <b>2880</b> 2
	and completed
	Box CAR ; Address, Lovington, H. H. ; Driller's License No. WD 144

2. Principal Water-bearing Strata:

FIELD ENGR. LOG

	Depth From	in Feet To	Thickness	Description of Water-bearing Formation
No. 1	60	70	10	Soft sandsone and sand
No. 2	80	120	40	Sand
No. 3				
No. 4			*****	
No. 5				

3. Casing Record:

Į,

Diameter	Pounds	Threads	Depth of Ca	sing or Liner	Feet of	Type of Shoe	Peri	oration
in inches	per it.	per inch	тор	Bottom	Casing	Type of Suce	From	10
	•••••	•••••						·····
	••••	•••••						
<u></u>				••••				
••••••				•••••	<b>-</b>			••••••
•••••				·····	<b>-</b>	••••••		
4. If above	construction	replaces	old well to	be abandone	d, give locat	ion:14	,¥	, ¹ ⁄4
of Section		, Townsh	ip	, Range	;	name and addr	ess of pluggin	ng contractor,

date of plugging .....

.....; describe how well was plugged: .....

16.36.15.212

	FILED
	MAY 1 / 1954
	O F F I C E GROUND WATER SUPERVISOR ROSWELL, NEW MEXICO
(P. Mar)	(m
L 2471	120m

Dom.





5. Log of Well:

1

Depth From	in Feet To	Thickness in feet	Description of Formation
Q	35	35	Calloba
35	60	25	Dry sand and rocky ledges
60	70	10	Sand and soft sandstone
70	80	10	Olsy
80	120	40	Sand with rocky ledges
200			
			L S Elev
			Depth to KTrc
	, 		
;		/	
	-		
4			
<u></u>	-		Hydro. SurveyField Check
		-	
<u></u>			
			COULCE DE LA LATIOU RIVER
·			
<u></u>			Line a Ly Anti Londing
			Other
<u></u>			· · ·
<b></b>			
		<u> </u>	

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

### Quarlos Prilling Co.

Quartes アス

#### Instructions

This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered should be as complete and accurate as possible.

1-2471

16.36.15.2.12





STATE ENGINEER OFFICE



WELL RECORD INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shell be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1	l

	(A) Owner of well herb Young	
	Street and Number 2011E 1, 10. 47 City Lovington	State New Mexico
···	Well was drilled under Permit No. 1-4574 Lot & Llock 1, 01-3504 Sub 1.1914 4 of Section 42	and is located in the Twp. 105 Rge. 2015
	(B) Drilling Contractor C. O. Aluredge Street and Number Box 379	License No79
	City Lovington	State New Mexico
	Drilling was commenced	19.01 01
L	Drilling was completed	

#### (Plat of 640 acres)

State whether well is shallow or artesian Bnallow Depth to water upon completion 62

Section	2		PRINC	IPAL WATER-BEARING STRATA	
	Depth in Feet		Thickness in	Description of Water-Bearing Formation	
NO.	No. From To Feet				
1	62	78	16	Light Water Sand	
2	78	87	9	Good hat er Sand	
3	87	90	3	Quick Sand	
4					
5					

Section 3	3			RECOR	D OF CAS	ING			
Dia	Dia Pounds Thre		eads Depth		Track	Tune Chee	Perforations		
in.	ft.	in	Top	Bottom	reet	Type Shoe	From	То	
70	d, Co.	unator p	ipe 5	teet lo	ng ceme	utea in t	op at well	· ·	

Section 4

#### **RECORD OF MUDDING AND CEMENTING**

					· ·
Depth in Feet		Diameter	Tons	No. Sacks of	Methods Used
$\mathbf{From}$	То	Hole in in.	Clay	Cement	
		7			No mud used
			<u></u>		

Sect	ti	on	5
	•••	· · ·	-

Name of Plugging Contractor		License No	*
Street and Number	City	State	
Tons of Clay used	Tons of Roughage used	Type of roughage	
Plugging method used		Date Plugged	
Plugging approved by:		Cement Plugs were placed as	s follows:

	No	Depth	of Plug	No. of Spolar Hand
Basin Supervisor		From	То	No. of Sacks Used
FOR USE OF STATE ENGINEER ONLY				
Date Received 12:1 Hd SI 907 1961				
File No. 6-4674 Use Dor	พ.,	Le	ocation No.	16.36.15,244

#### LOG OF WELL

From	n reet To	in Feet	Color	Type of Material Encountered
	1	1	Brown	Top Soil
	25	24	WIITE	Culickie Rock
	62	<u>&gt;7</u>	Brown	LEY SHING
	-78		Brown	Lient Huter 24a
78		9	hight br	owa Good Later Sand
	90	<u> </u>	Hed	Quick Sand
			······································	
	·			
	·			
<u> </u>				
	·			
		}		

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

C. O. aldredge. Well Driller

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HEIN THIN? LOG



STATE ENGINEER OFFICE

WELL RECORD



J. W. Hair

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1	1 • ¥ • 8	alr	
I	(A) Owner of well		
	Street and Numbergton	*	New Verico
	City	State	
	Well was drilled under Permit No.	15 1	and is located 3 the
		Ning Co.Twp.	Rge
	(B) Drilling Contractor II21 5. Love	D	icense No.
	Street and Numberston		llen Kexico
	City	State	
	Drilling was commenced	4	19.65
	Drilling was completed		19
(Plat of 640 acre	s)		100

Section	2

#### PRINCIPAL WATER-BEARING STRATA

No	Depth in Feet		Thickness in	Description of Water-Bearing Formation		
110.	From	Tão	Feet			
1						
2						
3						
4						
5						

Section 3	3			RECOR	D OF CAS	ING			
Dia	Dia Pounds		Threads Depth		Faat	Tupo Shoe	Perforations		
i <b>p</b> .	ft.	in	Тор	Botten	TOO	Type Silve	From	80 ^{To}	
	1							1	

Section 4

#### RECORD OF MUDDING AND CEMENTING

 Depth in Feet		Diameter	Tons	No. Sacks of	Methods Used	
 From	То	noie in in.	Ciay	Cement		
	1					

Section 5

Name of Plugging Contractor		License No.	
Street and Number	City	State	
Tons of Clay used	Tons of Roughage used	Type of roughage	
Plugging method used		Date Plugged	
Plugging approved by:		Cement Plugs were placed as follow	vs:

Basin Supervisor	No.	Depth From	of Plug To	No. of Sacks Used
FOR USE OF STATE ENGINEER ONLY				
1000 TEN 53 NU 51 56			<u> </u>	
File No. 4 5 5 3 9 Use	-0-7-	2-LL	ocation No	1636.15221

Don: - ok

LOG OF WELL

Depth	in Feet	Thickness	Color	Type of Material Presuntared
From	То	in Feet	COLOF	
0	70			3011
		- <u> </u>		<u> </u>
	21.	+		April
21	1.2			Sanda Clar
				a array a sull
42	70	<u>+</u> +-		Sand
70	100			Band & Veter
<u> </u>	·····	+		
	· · · · · · · · · · · · · · · · · · ·	<u> </u>		
	<u> </u>	+		
		╂		
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	<u> </u>			
		_ <b> </b>		
	+	-++		<u>, , , , , , , , , , , , , , , , , , , </u>
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<u></u>			······································	
	1			

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Otes Quett Well Driller

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# Form WR-23

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

	········	A) Owner of well <u>City of Lovington</u>	"Well No. 11"
		Street and NumberBox 265	
·	Margaret Containing	City Lovington	State
		Well was drilled under Permit No. Laussans	and is located in the
		<u><b>SE</b> 14 NW 14 NW 14 of Section</u> 15	Twp. 16 S Rge. 36 B
		(B) Drilling Contractor. Caybon Drilling Co	and License No. HD-183
		Street and Number Box 1021	
		City Lovington	State
		Drilling was commenced July 9	
		Drilling was completed July 12	

(Plat of 640 acres)

No Depth in	Feet Thickness in Feet	Description of Water-Bearing Formation	
	To Feet		
From			
1			
2			
3			
4			_
5			

Section 3 RECORD OF CASING									
Dia	Pounds	Threads D		Depth		Tupa Shee	Perforations		
in.	ft.	in	Тор	Bottom	m Feet	Type Shoe -	From	То	
12	35	Weld	0	130	130	None	90	130	

Section 4

#### RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter	Tons	Tons No. Sacks of	Methods Used		
From	То	Hole in in.	Clay Cement		metilous osea		
30	130	16	600 lbs.		Dry Mix		
					· · · · · · · · · · · · · · · · · · ·		
	) 						

#### Section 5

Name of Plugging Contractor		License No.	
Street and Number	City	State	
Tons of Clay used	Tons of Roughage used	Type of roughage	
Plugging method used		Date Plugged	19
Plugging approved by:		Cement Plugs were placed as follows:	:

*** * * * * * * * * * * * * * * * * * *			No.	Depth	of Plug	No. of Sacks Used
	Basin Supervisor			From	То	
FOR USE OF	STATE AUGINEEN ON			•		
Date Received	AUG 28 1957					
	O F F I C E GROUND WATER SUPERVISOR ROSWELL, NEW MEXICO					
File No. 2-455	-A-5 Use 7	Aur.		L	ocation No.	16.36.15.11424

LOG OF WELL

Depth i	in Feet	Thickness		Type of Material Resources
From	То	in Feet		Lype of material Ancountered
0	30	30		Old well open to 30 ft.
30	130	100		Drilled and reamed hole to 130 ft.
			· · · · · · · · · · · · · · · · · · ·	·
				······································
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		┨────╂─		
		+		
		+		LS Files
			<u></u>	Reptility in the
				LiDV DF F Francisco
				16.36.15.11424
				But finds ×
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		++		· · · · · · · · · · · · · · · · · · ·
				Subject for ALTITUDE STAFT
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<u> </u>			•	Balanting by the Location
		4		litter
				····
			·····	
			· · · · · · · · · · · · · · · · · · ·	

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

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TON WATER WELL DRILLING COMPANY CAY e Well Driller

and the second

Section 6

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STATE ENGINEER OFFICE





#### WELL RECORD INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging

accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed. Section 1
(A) Owner of well 5. F ArledgeStreet and Number  $So \chi$  189City Louington State W. Mi. Well was drilled under Permit No. L-313 D and is located in the N E 14 MH 14 NE 14 of Section 15 Twp. 16.5 Rge. 36.E(B) Drilling Contractor Grad g  $Sa \chi$  79/

 	City Lovington	State	IV.M.	
	Drilling was commenced	1 -	26	19 73
	Drilling was completed	) —	29	19 73

(Plat of 640 acres)

Section 2	2
-----------	---

#### PRINCIPAL WATER-BEARING STRATA

No.	Depth : From	in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	68	14	4	Water Sand
2	84	96	12	Quick Sand
3	112	122	10	Sand
4				
5				

Section 3 RECORD OF CASING									
Dia	Pounds	Threads	Depth		Fast	Tune Shee	Perforations		
in.	ft.	in	Тор	Bottom	reet	Type Shoe	From	То	
2	20	6	0	122	122	6	70	122	

Section 4

#### RECORD OF MUDDING AND CEMENTING

Depth	in Feet	Diameter	Tons	No. Sacks of			Meth	ode Heed	
From	То	Hole in in.	Clay	Cement			Wenn	ous useu	a" y ^{™ana} nana I y
									· · · · · · · · · · · · · · · · · · ·
·									
									1
									C0
······································	281.11.992.0992.0992.0992.0992.0992.0992.0	<u> </u>							
Section 5				PLUGGING	YECON	<b>ND</b>			0
Name of	Plugging	Contractor					L	icense No.	
Street an	id Number	r		City	y		Sʻ	tate	۲ -
Tons of C	Clay used		rons of Re	oughage used			Type of r	roughage	
Plugging	method u	ıseđ				Date	e Plugged	-	
Plugging	approved	by:				Cement	t Plugs wer	e placed as 2	follows:
						Depth	of Plug		
			Basin Supe	ervisor	No.	From	То	NO. OI	Sacks Used
<u> </u>	FOR USF	OF STATE EN	GINEER OF	NLY				······	
1						1			
Date F	Received					1	[]	 I	
	•••••••	,				1	I+	[	
1					L		<u> </u>		
	1	· · · · · · · · ·		<b>J</b>				11 = 1	· · ·
Ella No.	K	513-1	)	Use /KK	2	L/	ocation No/	16.36	15-212

#### LOG OF WELL

Depth i	in Feet	Feet Thickness Color		Type of Material Encountered
F FOM	10	*** * CCL		
0	2	2	Soil	
2	18	16	Caliche	
18	22	4	Bolderi	
22	68	46	Sandy (Ca	<i>t</i>
68	74	6	Water Sand	
74	84	10	Sandy Clay	
84	96	12	Quick Sand	
96	112	14	Sandy Clay	
112	122	10	Sand	
, ,				
•				
<u></u>				

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Mady Bocking Well Driller

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- C	•	12	100
		۰.	1.141

STATE ENGINEER OFFICE





INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

(A) Owner of well M F Whitaker Box 804	
City Lovington	State N. Mex.
Well was drilled under Permit No. L 313 A N 2 NE NE 4 of Section 15	and is located in the Twp.16 S• Rge. 36 E
(B) Drilling Contractor. Grady Backus Street and Number Box 791	License No.W D 322
 City Lovington	State N. Mex.
Drilling was commenced	
Drilling was completed	

(Plat of 640 acres)

96 ft. Elevation at top of casing in feet above sea level.... State whether well is shallow or artesian shallow 68 ft. 

Section 2

PRINCIPAL WATER-BEARING STRATA

No	No. Depth in Feet Thickness in From To Feet		Thickness in	Description of Water-Bearing Formation
110.			Feet	
1	68	76	8 ft.	Water Sand
2	86	96	10 ft.	quick Sand
3				
4				
5				

Section 3 RECORD OF C						F CASING			
Dia	Pounds	Threads	Depth		Foot	Turne Chan	Perforations		
in.	ft.	in	Тор	Bottom	reet	Type Shoe _	From	То	

Section 4

#### **RECORD OF MUDDING AND CEMENTING**

Depth From	in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
-					

#### Section 5

Name of Plugging Contractor		License No.	
Street and Number	City		
Tons of Clay used	Tons of Roughage used	Type of roughage	
Plugging method used	·	Date Plugged	19
Plugging approved by:		Cement Plugs were placed as follows:	

	No	Depth	of Plug	No. of Spake Used
Basin Supervisor	140.	From	То	NO. OI SACKS USED
FOR USE OF STATE ENGINEER ONLY II 19/1/500 Date Received 91/15/0 SI :8 WV 08 100 7961				
File No. L. 313. A. Use Dry M	Wo	m La	cation No.	16.36.15.220

Section 6			LOG OF WELL					
Depth	in Feet	Thickness	Color	Type of Material Recountered				
From	То	in Feet	Color					
0	1	1 ft.		Soil				
1	4	4 ft.		Rock				
4	16	12 ft		Caliche				
<b>1</b> 6	20	4 ft.		Bolder				
20	38	18 ft.		Sandy Clay				
38	2424	6 ft.		Sandy <b>Stay</b> e				
	68	24 ft.		Sandy Clay				
68	76	8 ft.		Water Sand				
76	85	9 ft.		Sand				
85	96	10 ft.		Quick Sand				
<u> </u>								
<u></u>								
<b></b> ,				, , , , , , , , , , , , , , , , , , ,				
			·····					
<b></b>			· · · · · · · · · · · · · · · · · · ·					
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	······································		- <u></u>					
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ąa								
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* <u></u>			<u> </u>					
· <u>····</u> ·····			v					
<b>Formanie an and Statistical Property of the Statistics</b>			₩₩					

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Grady Backus Well Driller





STATE ENGINEER OFFICE





INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Sect	ion	1

· · · · · · · · · · · · · · · · · · ·	(A) Owner of well John C. Tunnell		
	Street and Number		
	City Lovington	State	New Mexteo
	Well was drilled under Permit No. 1-5527	and	d is located in the
		Twp10 2	Rge. 30 E
	(B) Drilling Contractor p. & P. Drilling Go.	Lice	nse NoWD-281
	Street and Number		
	City Lovington	State	New Mexico
	Drilling was commenced		
	Drilling was completed Jan 21	*****	19.65

#### (Plat of 640 acres)

Se	cti	on	2

#### PRINCIPAL WATER-BEARING STRATA

No	No Depth in Feet		Thickness in	Description of Water-Bearing Formation				
	From	То	Feet					
1	. 69	100						
2								
3								
4								
5								

Section 3	3			RECOR	D OF CAS	ING			
Dia	Pounds	Threads	Depth		Fact	man Chas	Perforations		
in.	ft.	in	Тор	Bottom	reet	Feet Type Shoe	From	То	
7			0	- 100	100		70	80	
	to an international and the standards								
									_

Section 4

#### RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter	Tons	No. Sacks of	Methods Heed
From	То	Hole in in.	Clay	Cement	Methods Osed
			I sack		
	**************************************				

Section 5	PLUGGING RE	ECORD	
Name of Plugging Contractor.		License No.	
Street and Number	City	State	
Tons of Clay used		Type of roughage	
Plugging method used		Date Plugged	19
Plugging approved by:		Cement Plugs were placed as follows:	
	[,	Depth of Plug	

Basin Supervisor	NO.	From	То	NO. OI SACKS Used
FOR USE OF STATE ENGINEER ONLY				
21:8 HM 22 MM 5961				
File No. 4-5527 Use 16	2:∟	Lo	ocation No.	16.36,15-223

Dom-ok

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#### LOG OF WELL

Depth in From	a Feet To	Thickness in Feet	Color	Type of Material Encountered
0	2			Sed 1
2	ī4			Clichie
IL	69			Sand
69	100			Sand & Water
				· · · · · · · · · · · · · · · · · · ·
	· · · · · · · · · · · · · · · · · · ·			
	······································			
	<u></u>			
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	······································			
		+		· · · · · · · · · · · · · · · · · · ·

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Otes Privett Well Driller

STATE ENGINEER OFFICE



#### WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

|--|

	~	(A) Owner of well
		Street and Number
		CityStateState
		Well was drilled under Permit No. 7, 3(1),7
		1/ 1/4 1/4 1/3 1/4 of Section 1/5 Twp. 155 Rge. 34
		(B) Drilling Contractor. (1) and Fature License No.
		Street and Number
		City State State
		Drilling was commenced 1955 1955
L		Drilling was completed 19.5
(1	Plat of 640 acres)	

(Plat of 640 acres)

Elevation at top of casing in feet above sea level minimum Total depth of well 

Section	2		PRINCIPAL WATER-BEARING STRATA					
	Depth in Feet		Thickness in	Description of Water-Bearing Formation				
140.	No. From To	Feet						
1	1.15	90	25	ater conda				
2		· · · · ·						
3								
4								
5								

Section 3 RECORD OF CASING									
Dia	Pounds	Threads Depth		epth		Tune Shee	Perforations		
in.	ft.	in	Тор	Bottom	reet	Feet Type Shoe -	From	То	
		·							
			1						

Se	cti	on	4
$\sim c$	~ ~ ~	011	- 74

#### RECORD OF MUDDING AND CEMENTING

Depth From	in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
an an an de defension an administration and an analysis an					· · · · · · · · · · · · · · · · · · ·
PP. (	 			· · · · · · · · · · · · · · · · · · ·	

Section 5

Name of Plugging Contractor		License	No
Street and Number	City	State	
Tons of Clay used	ons of Roughage used		e
Plugging method used		Date Plugged	
Plugging approved by:		Cement Plugs were placed	l as follows:

	No.	Depth	1 of Plug	No. of Sacks Used
Basin Supervisor		From	То	
FOR USE OF STATE ENGINEER ONLY				
Date Received		 		
OPTICE OROUND WATER POPERVISOR RESIVELL, NEW MEXICO			Location No.	16.36.157230

S	ec	tion	6

LOG OF WELL

Depth	in Feet	Thickness	~ .	Turne of Medanial Encountered		
Tom	То	in Feet	Color	Type of Material Encountered		
O	5	5	rod	Sandy soil		
ц	25	20	white	inliche and modir		
25		10	red	Sandstone		
 / pu		20		intra gonda		
	05	<u>ر ب</u>		Alogr Banus		
	- 90	5	white			
	}					
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

lo lande co Well Driller out have

(This form is to be executed in triplicate)

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Az.

# WELL RECORD

Name of permit		•	••••
Street or P. O	.0VINGTON	, Ci	ty and State
1. Well location an	d description: The	Allow or artesian)	located in NW 1/4, SW
	of Section	5, Township	6S, Range; Elevation of top
casing above sea	level,	feet; diameter of	hole,
depth to water u	pon completion,	6.5 feet; drillir	ng was commenced DEC. 15
and completed	Ĥ€C		of drilling contractor
	; Address	SLOVINGTO	N., M., Driller's License No
2. Principal Water	-bearing Strata:		
Dept From	h in Feet	Thickness	Description of Water-bearing Formation
No. 1	75	10	LIGHT WATER SAND
No. 2	90	15	GOOD WATED SAND
No. 3	100	10	QUICK SAND
No. 4		αια	
No. 5			
3. Casing Record: Diameter Pound in inches per fi	s Threads Dept per inch	th of Casing or Liner Top Bottom	Feet of Perforation Casing Type of Shoe From To
3. Casing Record: Diameter Pound in inches per fi	s Threads Dept per inch NOT CASED	th of Casing or Liner Top Bottom	Feet of Perforation Casing Type of Shoe From To
3. Casing Record: Diameter Pound in inches per fi	s Threads Dept per inch NO.T. C.ASED	th of Casing or Liner Top Bottom	Feet of Perforstion Casing Type of Shoe From To
3. Casing Record: Diameter Pound in inches per fi	s Threads Dept	th of Casing or Liner Top Bottom	Feet of Perforation Casing Type of Shoe From To
3. Casing Record: Diameter Pound in inches per fi	s Threads Depr per inch NO.T. C.ASED	th of Casing or Liner Top Bottom	Feet of Perforation Casing Type of Shoe From To
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per fit</li> <li>4. If above constru</li> </ol>	s. Threads Depr per inch Depr NO.T. C.ASF.D	th of Casing or Liner Top Bottom	Feet of Perforation Casing Type of Shoe From To give location:
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per fit</li> <li>4. If above constru of Section</li> </ol>	S. Threads Depr per inch Depr NO.T. C.ASF.D 	th of Casing or Liner Top Bottom	Feet of Perforation Casing Type of Shoe From To give location: 1/4, 1/4,
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per ft</li> <li>4. If above constru of Section</li> </ol>	s Threads Dept per inch Dept NO.T. C.ASED ction replaces old	th of Casing or Liner Top Bottom well to be abandoned, 	Feet of Type of Shoe From To
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per fit</li> <li>4. If above constru of Section</li> </ol>	s Threads Dept per inch Dept NO.T. C.ASED	th of Casing or Liner Top Bottom	Feet of Type of Shoe From To
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per ft</li> <li>If above constru- of Section</li> <li>date of plugging</li> </ol>	s Threads Depi per inch Depi NO.T. C.ASED ction replaces old , Township	th of Casing or Liner Top Bottom well to be abandoned, 	Feet of Casing       Type of Shoe       Performing         give location:       1/4,       1/4,        ; name and address of plugging contraction
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per fit</li> <li>4. If above constru- of Section</li> <li>date of plugging</li> </ol>	s Threads Depi per inch Depi NO.T. C.ASED ction replaces old , Township	th of Casing or Liner Top Bottom	Feet of Casing       Type of Shoe       Performing         give location:       1/4,       1/4,        ; name and address of plugging contraction:
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per fit</li> <li>4. If above constru of Section</li> <li>date of plugging</li> </ol>	s Threads Depi per inch Depi NO.T. C.ASED	th of Casing or Liner Top Bottom	Feet of Casing       Type of Shoe       Performing         give location:       1/4,       1/4,
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per fit</li> <li>4. If above constru- of Section</li> <li>date of plugging</li> </ol>	s Threads Depr per inch Depr NO.T. C.ASED ction replaces old , Township	th of Casing or Liner Top Bottom	Feet of Casing       Type of Shoe       Perforation From         give location:       1/4,       1/4,         ; name and address of plugging contraction       1/4,
<ol> <li>Casing Record:</li> <li>Diameter Pound in inches per fit</li> <li>4. If above constru- of Section</li> <li>date of plugging</li> </ol>	s Threads Depi per inch Depi NO.T. C.ASED	th of Casing or Liner Top Bottom well to be abandoned, Range	Feet of Casing     Type of Shoe     Perforation From       give location:     1/4,     1/4,       ; name and address of plugging contract
<ol> <li>Casing Record:</li> <li>Diameter Pound in inohes per ft</li> <li>If above constru of Section</li> <li>date of plugging</li> </ol>	s Threads Depi per inch Depi NO.T. C.ASF.D	th of Casing or Liner Top Bottom well to be abandoned, 	Feet of Type of Shoe From To give location: 1/4, 1/4, ; name and address of plugging contract describe how well was plugged: R 3 1954
<ol> <li>Casing Record:</li> <li>Diameter Pound in inohes per fit</li> <li>If above constru of Section</li> <li>date of plugging</li> </ol>	s Threads Depi per inch Depi NO.T. C.ASF.D	th of Casing or Liner Top Bottom well to be abandoned, 	Feet of Casing Type of Shoe From To give location: 1/4, 1/4, ; name and address of plugging contract describe how well was plugged: R 3 1954 OFFICE

5. Log of Well:

. .

Depth From	in Feet To	Thickness in feet	Description of Formation
0	3	3	SOIL
_3	10	7	LIME ROCK
10	20	10	CALICHIE
20	65	45	DRY SAND
65	75	10	LIGHT WATER SAND
75	90	15	GOOD WATER SAND
90	100	10	QUICK SAND
		·	
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4 ¹	<i></i>		• • • • • • • • • • • • • • • • • • •

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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driffer 1 3

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Instructions

1.5

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This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered should be as complete and accurate as possible.

5 1 S. .

WEL	_L F	REC	ORD
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m.,

File No._

INSTRUCTIONS: This form should be typewritten, and filed in the office of the State Engineer, (P.O. Box 1079) Santa Fe, New Mexico, unless the well is situated in the Roswell Artesian Basin, in which case it should be filed in the office of the Artesian Well Supervisor, Roswell, New Mexico. Section 5 should be answered only if an old artesian well has been plugged. All other sections should be answered in full in every case, regardless of whether the well drilled is shallow or artesian in character. This report must be subscribed and sworn to before a Notary Public.

Sec. 1	-			. <i>,</i> , , , ,	
	Owner of w	ell	J. V	Blanner	<i>[</i>
NWNE	Street and N	umber			
	Post Office	BOX	4.81	. S. Fritter p. 1	·····
	Well was dr	, illed under F	ermit No. 🗄	(). 6. 6. 7.	and
	is located in	the NW	.n. Sirv		f Section
	Township	165		Range	
	Drilling Cor	tractor 7	5 7.11	lug de c	Chairman .
	Street and N	umbar		Ŧ	
(Plat of 640 acres) Locate Well Accurately	Breet and R	The second	· · · · · · · · · · · · · · · · · · ·		
Drilling was commenced	Post Office	Juli Blokerer O S M Duilli	nd man aarra	land in the second second	2
Drilling was commenced		דווחדע געיי <b>ש</b>	ng was comj	Sleted	
State whether well is shallow or a	rtesion				
Total denth of well	feet			· · · · · · · · • • • • · · · · · · · ·	
Sec. 2	PRINCIPAL W	ATER.REAL	RING STRA	ТЪ	
No. 1. from to to	Thickne	es in feet		Formation	
No. 2. from	Thickne	ess in fact	· · / · · · · · · · · · · · · · · · · ·	Formation 4.	Z. 2 - (
No. 3, from	Thickne	ss in feet		Formation	· · · · · · · · · · · · · · · · · · ·
No. 4, from	Thickne	ess in feet		Formation	
No. 5. from to	. Thickne	ess in feet		Formation	
Sec. 3	REC	ORD OF CA	.SING		
DIAMETER POUNDS THREADS		FEET OF	TYPE OF	PERFORATED	}
IN INCHES PER FOOT PER INCI	MANUPACTURE	RCASING	SHOE	FROM TO	PURPOSE
Sec. 4	RECORD	OF MUDDING	G AND CEM	LENTING	
	SACKA				TONE OF
HOLE IN INCHES OF CEM	ENT	METHODS U	SED	OF MUD	CLAY USED
				·····	
Sec. 5	PLUGGI	NG RECORD	OF OLD W	ELL	
Well is located in the	<b>V4</b>		Section	, Townshij	<b>)</b> ,
Range Name of p	lugging contracto	<b>r</b>			
Street and Number		Post	Office	· · · · · · · · · · · · · · · · · · ·	••••••••••••••••••
Tons of clay used	. Tons of rough	age used		Type of roughag	e
	· · · · · · · · · · · · · · · · · · ·	Was	plugging ap	proved by Artesian \	Vell Supervisor
Cement plugs were placed as follow	WS:				
No. I was placed at	• • • • • • • • • • • • • • • • • • • •	. feet Num	ber of sacks	s of cement used	
No. 2 was placed at	· · · · · · · · · · · · · · · · · · ·	. feet Num	ber of sacks	s of cement used	· · · · · · · · · · · · · · · · · · ·
No. 3 was placed at	• • • • • • • • • • • • • • • • • •	feet Num	ber of sacks	s of cement used	· · <i>,</i> · · · · · · · · · · · · · · · · · · ·
No. 4 was placed at		. feet Nun	ber of sacks	s of cement used	••••••
No. 5 was placed at		feet Nuw (OVER)	ber of sacks	s of coment used	

Sec: 6

#### LOG OF WELL

FROM (depth in feet)	TO (depth in feet)	THICKNESS IN FEET	CLASSIFICATION OF FORMATION
$\mathcal{D}$	1	2	Top Same
	3 0	29	O QUIL
5			Cality
30	(v /	3/	down plaine
61	62	]	Porne Indita
62	28	1 6	8 and Store
r7 6	80		
			really really
	·		
	·	·	
	· · · · · · · · · · · · · · · · · · ·		
	· · · · · · · · · · · · · · · · · · ·		
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	1		

Form WR-23



STATE ENGINEER OFFICE

#### WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

S	e	С	t	i	0	n	L	1

		· · · · · · · · · · · · · · · · · · ·	(A) Owner of well MRS M. C. CASTLEEERRY	
			City State	
			Well was drilled under Permit No. L-207 and is located <u>NN 14 SN 14 NE 14</u> of Section 15 Twp. 16 Section Rge. 36	in the
			(B) Drilling Contractor P & P DRILLING CO. License No. WD- Street and Number II2I S. Love	2 <del>81</del>
	·	<u> </u>	 City LOVINGTON State N. H.	
			Drilling was commenced Jan 15 19 Drilling was completed 18	- <del>66</del>
(P	Not of Re	() acres)		QQ

Section	1 <b>2</b>	• •	PRINCIPAL WATER-BEARING STRATA				
No.	Depth From	in Feet	Thickness in Feet	Description of Water-Bearing Formation			
1							
2			*				
3	-						
4		-					
5	··· •·································						

Section 3	\$			RECOR				
Dia Pounds	Threads	eads Depth		Treed	Tune Shee	Perforations		
in.	ft.	in	Тор	Bottom	reet	Type Shoe	From	То

Section 4

#### RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter	Tons	No. Sacks of	Methods Used		
From	То	Hole in in.	Clay Cement				
	1						

Section 5

Name of Plugging Contractor		License No			
Street and Number	City	State			
Tons of Clay used	edT	ype of roughag <b>e</b>			
Plugging method used	Date Pl	lugged			
Plugging approved by:	Cement Plu	ugs were placed as fo	ollows:		
	Depth of	Plug			

	Basin Supervisor		From	То	No. of Sacks Used
FOR USE OF	STATE ENGINEER ONLY				
Data Passivad	Elling and an				
Date Received	······································				
	0133 330	······	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
File No L-JC	$\sqrt{7}$ Use $\sqrt{7}$	ir,	I	ocation No.	6,36,15,231

LOG OF WELL

· ·

Depth i	in Feet	Thickness		1		
From	То	in Feet	Color	Type of Material Encountered		
				THIE IS A REPAIR JOB		
	·			CLEANED WELL BB 83 ft to TOO ft_		
		·				
		·				
······						
	·					
<u> </u>						
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				·		
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well. Well Driller

:

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STATE ENGINEER OFFICE





INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

	(A) Owner of well	and the second
	Street and Number 2012 2020	State State
	Well was drilled under Permit No. L-2862	and is located in the TwpRge
	(B) Drilling Contractor Corton Contractor Street and Number Box 1001	License No
	- City Fordington	State State
	Drilling was commenced	19 55
(Plat of 640 scres)	Drilling was completed	19 5

(Plat of 640 acres)

55

Section	2		PRINCIPA	WATER-BEARING STRATA
No.	Depth in Feet From To		Thickness in Feet	Description of Water-Bearing Formation
1	120	1. 199 A. 1. 199 A.	e `	2 11
2	$CI_{\psi}$	9.5		••• • • • • • • • • • • • • • • • • •
3				
4	** UM P. Vermerverside F.F.e. and	-		
5	-			

Section 3	;			RECOR	D OF CAS	ING			
Dia	Pounds	Threads	Depth		Foot	Turne Shee	Perforations		
in.	in. ft. in Top Bottom Feet	reet	Type Shoe	From	То				
ŕ				1 14	1.1.1	11011/			
		an a							
a	· · · · · · · · · · · · · · · · · · ·								

Section 4

#### RECORD OF MUDDING AND CEMENTING

Depth in Feet From To		in Feet To	Diameter Tons Hole in in. Clay		No. Sacks of Cement	Methods Used

Section 5

Name of Plugging Contrac	tor		I	license No	
Street and Number		City	S	tate	
Tons of Clay used		ed	Type of	roughage	
Plugging method used			Date Plugged		9
Plugging approved by:			Cement Plugs wer	e placed as follows:	
		No	Depth of Plug	No. of Cooler Head	

Basin Supervisor	No.	From	To	- No. of Sacks Used
FOR USE OF STATE ENGINEER ONLY				
Date Received (June 10, 1955				111N 50 1955
				TOUSLOND VILLE
File No	om	Lo	ocation N	Io

16.36.15.233

LOG OF WELL

Depth in Feet		Thickness	Colar	Tune of Motorial Encountered		
From	То	in Feet	Color	Type of Material Encountered		
0	3	3		Soil		
3	8	5		Nock		
<u>.</u>	14	.6		Callcho		
14	20	6		liock		
20	22	2		Boulder		
22	30	\$		Sand & Gallein Calicha		
30	50	20		Sand & Clay		
50	70	20		Sand & Calcium		
70	78	8		Sand		
78	84	6		Sandy Clay		
84	92	8		Quick Sand		
92	94	2		Rock		
<u></u>						

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well. /

ack ( Well Driller

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STATE ENGINEER OFFICE



INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1		
	(A) Owner of well Darrel 1. Di triore	
	City	. State
	Well was drilled under Permit NoL=5226 	wp. <u>16.2</u> Rge. <u>36</u>
	(B) Drilling Contractor Street and Number 127 S. Love	License No. <b>%D-281</b>
	City Lovington Drilling was commenced	State
(Plat of 640 pares)	Drilling was completed Sept. 10	

(Plat of 640 acres)

#### PRINCIPAL WATER-BEARING STRATA

No	Depth	in Feet	Thickness in	Description of Water-Bearing Formation		
NO.	From	To	- Feet			
1	70	105				
2						
3						
4						
5						

Section :	3			RECOR	D OF CAS	ING			
Dia	Pounds	Threads	Depth		Foot	Tuno Cheo	Perforations		
in.	ft.	in	Тор	Bottom	reel	Type Shoe	From	То	
	10				***				
C1	6		U U		110		10		
					]				
***								· · · · · · · · · · · · · · · · · · ·	

Sect	ion	4	
Dect	ion	т	

#### RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter	Tons	No. Sacks of	Methods Used
From	То	Hole in in.	Clay	Cement	
			······		
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			V DRUVIL		
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·····		1	<u>                                      </u>		
	1	ſ			

Section 5 P	LUGGING I	JGGING RECORD						
Name of Plugging Contractor		License No.						
Street and Number	City		State					
Tons of Clay used	age used	ge used						
Plugging method used	-+	Date Plugged19						
Plugging approved by:		Cement Plugs were placed as follows:						
Basin Supervise	)r	No.	Depth From	of Plug To	No. of Sacks Used			
FOR USE OF STATE ENGINEER ONLY								
Date Received								
File No. $-5226$ Use		ên	<u> </u>	ocation No	16.36.15,240			
01:8 111 8-120 8651		Ŕ	)om -	OK				

1.1

#### LOG OF WELL

Depth in Feet		Thickness		Two of Material Transmissional			
From	То	in Feet	Color	Type of Material Encountered			
	Ŧ						
	22			Clickie			
<b>A</b>	46						
				Wry band			
	45			Sandy Clay			
				Um Hand			
_ 60	70		1	Sandy Clay			
- 70	IO						
	110			·//86 • • • • • • • • • • • • • • • • • • •			
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	1	1	1				

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.  $\sim$ 

Well Driller -----



1



# STATE ENGINEER OFFICE



**INSTRUCTIONS:** This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Image: Construction of the construction of	ection 1	,			- of wall	Gerold	4 Bean				
City     Capitan     State       Well was drilled under Permit No.     Ind is located in th       Well was drilled under Permit No.     Ind is located in th       Well was drilled under Permit No.     Ind is located in th       Well was drilled under Permit No.     Ind is located in th       Well was drilled under Permit No.     Izi Y. Love       License No.     License No.       Street and Number     Izi Y. Love       City     Jan 30       State     Total depth of well       Drilling was completed     Io       Jording was completed     Io       Jording was completed     Io       Jording was completed     Io       Jording was completed     Total depth of well       Jording was completed     Total depth of w	i			Street and	Number.	Ex	0x 68		· • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	
Weil was drilled under Permit No.     1-553     and is located in the set of the set o	1	1		City Car	pitan				State	Vexico	
M. SE     M. SE     M. Set M. Set M. Settion     15     Twp. 10.5     Regn_201       (B) Drilling Contractor     (B) Drilling Contractor     License No.       (B) Drilling was completed     Jan. 30     19				Well was d	irilled un	der Perm	it No. 1,-55.5	3	and i	s located in the	
(B) Drilling Contractor     IZI 5: Love     License No.       Street and Number     IZI 5: Love     For Textor       Street and Number     IZI 5: Love     For Textor       City     Jan 30     19.65       Drilling was completed     Jan 30     19.65       City     Drilling was completed     100       Street and Number     Total depth of well     100       Street and Number     Depth to water upon completion     75       Street and Number     Total depth of well     75       Street and Number     Total depth of well     75       Section 2     PRINCIPAL WATER-BARING STRATA     76       No.     Depth in Feet     Thickness in     Description of Water-Bearing Formation       1     70     Tot     Feet     Type Shoe       1     Tot     Tot     Tot     70       2     Data     Performation     70     50       2     Data     Performation     70     50       2     Data     Performation     70     50       3     Data     Performations     70     70       5     Tot     Dot     Tot     70     50       5     Tot     Tot     No. Secks of     No. Secks of       Section		_			<u>SR</u> 4	NE 14	of Section	<u>,</u>	p. 16 8	Rge 36 %	
Street and Number     146.7 + 1.000       City     Street and Number     State     65       City     Jan 30     State     65       Drilling was completed     Jan 30     19     65       (Plat of 460 acres)     Drilling was completed     Total depth of well     100       State whether well is shallow or artesian     Shallor     Depth to water upon completion     75       Section 2     PRINCIPAL WATER-BEARING STRATA     Section 1     Thickness in     Description of Water-Bearing Formation       1     70     JOC     2     2     2     2     2       3       Description of Water-Bearing Formation     75       Section 3     RECORD OF CASING     Perforstions       Dia     Pounds     Threads     Depth       5     0     IO1     100     70       5     76     0     IO1     70       6     5/B     0     IO1     70       5     0     IO1     100     70       5     0     IO1     100     100       5     0     IO1     100     100       5     0     IO1     100     100       5     0     IO1     IO2     10		1	·····	(B) Drillin	ig Contra	ictor	· WELLAND, ···		License	No	
City     City     State     State       Drilling was commenced     Jan 30     19. 65       Orland 640 acres)     Drilling was completed     19       State whether well is shallow or artesian     Total depth of well     10       Section 2     PRINCIPAL WATER-BEARING STRATA     Total depth of well       No.     Depth in Feet     Thickness in Pret     Description of Water-Bearing Formation       1     70     J00     10     10       2     Image: Strate well of the strate				Street and	Number	112.	5. Love		Ner	NEXIDO	
Image: construction of the set of the		 	·····	City			-Ian 3()	;	State	65	
Image: Constraint of the second se				Drilling wa	as comme	enced	Jan. 30			19 <del>6</del> 5	
100         State whether well is shallow or artesian         Total depth of well         State whether well is shallow or artesian         Depth in Section 2         PRINCIPAL WATER-BEARING STRATA         No.         Depth in Feet       Thickness in Peet         1       70       JOC         2       1       1         3       1       70         4       1       1         5       1       100         Section 3         RECORD OF CASING         Diation         10       100         To T	(P	Plat of 640 a	cres)	⊥ Drilling wa	is complet	ted			•	19	
State whether well is shallow or artesian       Shallow       Depth to water upon completion         Section 2       PRINCIPAL WATER-BEARING STRATA         No.       Depth in Feet       Thickness in       Description of Water-Bearing Formation         1       70       700       Too         2	Revatior	n at top of	casing in	feet above sea	level		Total de	oth of w	IOO vell		
Section 2         PRINCIPAL WATER-BEARING STRATA           No.         Depth in Feet From         Thickness in Feet         Description of Water-Bearing Formation           1         70         JO2	State wh	nether well	l is shallov	w or artesian	⁵ hall	LON	Depth to wa	ter upor	n completic	75 on	
No.       Depth in Feet       Thickness in Peet       Description of Water-Bearing Formation         1       70       70       70         2       1       70       70         3       1       1       70         4       1       1       100         3       1       1       100         4       1       1       100         5       1       10       100       100         Section 3       RECORD OF CASING       Performing       Top         5       1       10       100       100       100         5       0       100       100       100       100       100         5       0       100       100       100       100       100       100         5       0       100       100       100       100       100       100       100         Section 4       RECORD OF MUDDING AND CEMENTING       Depth in Feet       Diameter       Tons       No. 5acks of Cement I Methods Used       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100 <td>Section 2</td> <td>).</td> <td>i mitan</td> <td>PRINC</td> <td>CIPAL WA</td> <td>TER-BEAR</td> <td>ING STRATA</td> <td></td> <td>_</td> <td></td>	Section 2	).	i mitan	PRINC	CIPAL WA	TER-BEAR	ING STRATA		_		
No.         From         To         Feet         Description of meet bearing contractor.           1         70         JOC		Depth ir	Feet	Thickness in		Der		- Peering	Tomation	2-18 Million	
1       70       100         2       3       4         3       4       5         3       5       100         Dia       Pounds       Threads       Dopth         Top       Boitom       Feet       Type Shoe       Perforations         Top       Top       Boitom       Feet       Type Shoe       Perforations         Top       Top       Boitom       Feet       Type Shoe       Perforations         Top       Top       Dopth       Top       50       To         Section 4       RECORD OF MUDDING AND CEMENTING       Section 4       Record of MUDDING AND CEMENTING         Dopth in Feet       Diameter       Tons       Clay       Cement       Methods Used         Section 5       PLUGGING RECORD       State       State       Tons of Roughage used       Type of roughage         State       Tons of Roughage used       Type of roughage       19       Date Plugging approved by:       Cement Plugs were placed as follows:         No       Tor State       Ton       Ton       Ton       No. of Sacks Used         Date Received       -       -       -       No. of Sacks Used       19         Date Received	No.  -	From	To	Feet	_	100 E	Cription of wate.	-Bearing	Formation		
2       3       4         3       4       5         Section 3         RECORD OF CASING         Diameter Top Bottom Feet Type Shoe From To	1	70	100				<u></u>				
3       4         3       4         5       5         Section 3         RECORD OF CASING         Dia treads Depth Top Bottom Feet Type Shoe       Perform To         5       O       ICO       Perform To         5       Dia treads Depth Top Bottom Feet Type Shoe       Perform To         6       5/8       0       ICO       ICO       70       \$0       \$0         Section 4         RECORD OF MUDDING AND CEMENTING         Depth in Feet       Diameter       Tons       No. Sacks of Cement       Methods Used         Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.       State         Street and Number       Cots of Roughage used       Type of roughage       19         Plugging method used       Date Plugged       19       Pluggs were placed as follows:         Method Flug         Tool to flug         Basia Supervisor         No. of Sacks Used         Prom         To         Date Recepived <td col<="" td=""><td>2</td><td>· · · · · · · · · · · · · · · · · · ·</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td>	<td>2</td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	2	· · · · · · · · · · · · · · · · · · ·								
4       5       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1 <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<>	3				,		9-16-16-16-16-16-16-16-16-16-16-19-16-16-19-16-16-16-16-16-16-16-16-16-16-16-16-16-	····		10 ¹²	
Section 3         RECORD OF CASING         Dia Pounds Intreads Intreads Intereds       Depth Top Bottom Feet Type Shoe       Perforations Too         5       O ICO ICO ICO ICO ICO ICO ICO ICO ICO IC	······································				at a second						
Section 3       RECORD OF CASING         Dia in. in. 5.5/5       Threads in. 0       Depth Top Bottom       Feet From 100       Type Shoe       Perforations From 70       Top 50         Section 4       RECORD OF MUDDING AND CEMENTING         Section 4       RECORD OF MUDDING AND CEMENTING         Depth in Feet From To       Diameter Hole in in. Clay       No. Sacks of Cement       Methods Used         Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No. Street and Number       License No. State         Tons of Roughage used Plugging method used       Date Plugged 19.       19.         Plugging approved by:       Cement Plugs were placed as follows:         No.       Depth of Plug From To       No. of Sacks Used         For USE OF STATE ENGINEER ONLY Date Received Coment Plugs       No. of Sacks Used         No.       Location No.       Section So. Section No.	5	• • • • • • • • • • • • • • • • • • • •								a \$15 dilaman o ranon, d.,	
Section 3       RECORD OF CASING         Dia in       It       Threads in       Depth Top       Feet       Type Shoe       Perforations To         6.5/8       0       100       100       100       100       70       50         Section 4       RECORD OF MUDDING AND CEMENTING         Depth in Feet       Diameter Hole in in.       Tons Clay       No. Sacks of Cement       Methods Used         Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging approved by:       Cement Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:         No.       Depth of Plug       No. of Sacks Used         Plugging approved by:       Tons of Roughage used       Type of roughage         Plugging approved by:       Cement Plugs were placed as follows:         No.       Peth of Plug       No. of Sacks Used         Section 5       From Too       No. of Sacks Used         Plugging approved by:       You Licention No. (b. B backs Used         Section No.       You Licention No. (b. B backs Used) <td></td> <td><u> </u></td> <td></td> <td>·····</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b></b></td>		<u> </u>		·····						<b></b>	
Dia     Pounds     Threads     Depth     Feet     Type Shoe     Form       70     50     0     100     100     100     70     50       6     5/8     0     100     100     100     70     50       Section 4     RECORD OF MUDDING AND CEMENTING       Depth in Feet     Diameter     Tons     No. Sacks of Cement     Methods Used       From     To     Hole in in.     Clay     Cement     Methods Used       Section 5     PLUGGING RECORD       Name of Plugging Contractor     License No.       Street and Number     City.     State       Tons of Clay used     Tons of Roughage used     Type of roughage       Plugging approved by:     Cement Plugged     19       Plugging approved by:     Cement Plugs were placed as follows:       No.     Depth of Plug       No.     Depth of Plug       No.     Sacks Used       Fion No.     10       Plug Received     10       State     No. of Sacks Used       Fine No.     10	Section a	3		 I Den	RECOR	D OF CAS		<u>.</u>	Barfora	·• ·	
65/76       0       100       100       100       70       50         Section 4       RECORD OF MUDDING AND CEMENTING         Depth in Feet       Diameter       Tons       No. Sacks of Cement       Methods Used         From       To       10       10       10       10       10         Section 4       RECORD OF MUDDING AND CEMENTING       Methods Used       10       10       10         Section 5       PLUGGING RECORD       Methods Used       10       10       10       10         Section 5       PLUGGING RECORD       License No.       10       10       10       10         Section 5       PLUGGING RECORD       State       10       10       10       10         Section 5       PLUGGING RECORD       Date Plugged       19       10       10       10       10         Street and Number       City       State       10       10       10       10       10         Plugging method used       Tons of Roughage used       Type of roughage       19       19       19       10       10       10       10       10       10       10       10       10       10       10       10       10       1	Dia in.	Pounds ft.	Threads in	s Top	b Bottom	Feet	Type Shoe	Fr	rom	To	
Section 4       RECORD OF MUDDING AND CEMENTING         Depth in Feet       Diameter       Tons       No. Sacks of Cement       Methods Used         From       To       Hole in in.       Clay       No. Sacks of Cement       Methods Used         Section 5       PLUGGING RECORD       Street and Number       License No.       Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage       19         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No. of Sacks Used         FOR USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       No. of Sacks Used         Comparison       To         For No.       Location No. (K. B %// 5.246	6 5/8				100	100	+		70		
Section 4       RECORD OF MUDDING AND CEMENTING         Depth in Feet       Diameter       Tons       No. Sacks of Cement       Methods Used         From       To       Hole in in.       Clay       Cement       Methods Used         Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage.         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No. of Sacks Used         For USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       No. of Sacks Used         Contractor       Sack of the plug         Date Received       No. of Sacks Used         File No       L - 553.3         Use       Pluge Ino		-						1			
Section 4       RECORD OF MUDDING AND CEMENTING         Depth in Feet       Diameter       Tons       No. Sacks of Cement       Methods Used         From       To       Hole in in.       Clay       Cement       Methods Used         Section 5       PLUGGING RECORD       State       Section 5         Name of Plugging Contractor       License No.       State         Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:       No. of Sacks Used         FOR USE OF STATE ENGINEER ONLY       No. of Sacks Used       Image: Plugging No. of Sacks Used         Date Received       Image: Plugging No. of Sacks Used       Image: Plugging No. of Sacks Used         File No       L       Sign Production No.       Sign Production No.	· · · · · · · · · · · ·	1.1 m					Statisticands - 499 9 998 58 de dada - mar o manage a sa April A. Adams - 1	ramata dalaké di manalapi napi pi pi pi pi pi pi pi pi			
Section 4       RECORD OF MUDDING AND CEMENTING         Depth in Feet       Diameter       Tons       No. Sacks of Cement       Methods Used         From       To       Hole in in.       Clay       Cement       Methods Used         Section 5       PLUGGING RECORD       State       Section 5         Name of Plugging Contractor       License No.       State         Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:         For USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       1       Intervision         File No       L       55 3 3       Use       Centor No.       Sacks/5, 2.4.6											
Depth in Feet       Diameter       Tons       No. Sacks of Cement       Methods Used         From       To       Iole in in.       Clay       No. Sacks of Cement       Methods Used         Section 5       PLUGGING RECORD       Iole in in.       Iole in in.       Iole in in.       Iole in in.         Section 5       PLUGGING RECORD       Iole in in.       Iole in in.       Iole in in.       Iole in in.         Section 5       PLUGGING RECORD       Iole in in.       Iole in in.       Iole in in.       Iole in in.         Section 5       PLUGGING RECORD       Iole in in.       Iole in in.       Iole in in.       Iole in in.         Section 5       PLUGGING RECORD       Iole in in.       Iole in in.       Iole in in.       Iole in in.         Section 5       PLUGGING RECORD       Iole in in.       Iole in in.       Iole in in.       Iole in in.         Section 5       PLUGGING RECORD       Iole in in.       Iole in in.       Iole in in.       Iole in in.         Street and Number       Tons of Roughage used       Type of roughage.       Iole in in.       Iole in in.         Plugging approved by:       Cement Plugs were placed as follows:       Iole in in.       Iole in in.       Iole in in.         Date       Received       Iol	Section 4	4		RECORE	OF MUE	DDING AN	ID CEMENTING				
From       To       Hole II III.       Casy       Cancel         Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:         For USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       Image: Monor State Sta	Depth	n in Feet	Diamete	er Tons	No. Sa	icks of		Metho	ods Used		
Section 5       PLUGGING RECORD         Name of Plugging Contractor.       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Image: State sta	From	То	Ноје н	in. Ciay			<u> </u>				
Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No.         FOR USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       Image: Place Place Place         Image: Place Place Place Place       Place Place Place Place         Image: Place Place Place Place Place Place       Place Place Place Place         Image: Place Place Place Place Place       Place Place Place Place         Image: Place Place Place Place Place       Place Place Place Place         Image: Place Place Place Place Place       Place Place Place Place         Image: Place Place Place Place Place Place Place Place       Place Place Place Place Place         Image: Place	••••••••••••••••••••••••••••••••••••••									, g , allen av av gege al a d a da an	
Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No.         For USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       No.         Image: No.       Image: No. of Sacks Used         File No.       Location No.         Keile No.       Location No.			_	······	_						
Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No. d Sacks Used         FOR USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       Image: State of Stat								· · · · · · · · · · · · · · · · · · ·		<u> </u>	
Section 5       PLUGGING RECORD         Name of Plugging Contractor       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Image: State sta				!	1	I					
Name of Plugging Contractor       License No.         Street and Number       City         Tons of Clay used       Tons of Roughage used         Plugging method used       Date Plugged         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No.         FOR USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       1-000         File No       Location No.         Keile No       Location No.	Section f	5			PLUGE	JING REC	ORD				
Street and Number       City       State         Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:       19         Plugging approved by:       Cement Plugs were placed as follows:       19         Plugging approved by:       Cement Plugs were placed as follows:       19         Plugging approved by:       No.       Depth of Plug       No. of Sacks Used         FOR USE OF STATE ENGINEER ONLY       No.       From To       No. of Sacks Used         Date Received       10       10       10       10         File No       Location No.       K. 3.6.15.2.4.6       10	Name of	f Plugging	; Contracto	ə <b>r</b>				Lie	cense No		
Tons of Clay used       Tons of Roughage used       Type of roughage         Plugging method used       Date Plugged       19         Plugging approved by:       Cement Plugs were placed as follows:         Basin Supervisor       No.       Depth of Plug         FOR USE OF STATE ENGINEER ONLY       No. of Sacks Used         Date Received       10         12:0       10         12:0       10         12:0       10         13:0       10         14:0       100         15:0       10         16:0       10         17:0       10         16:0       10         16:0       10         16:0       10         16:0       10         16:0       10         16:0       10         16:0       10         16:0       10         16:0       10         16:0       10         16:0       10         16:0       10         17:0       10         16:0       10         16:0       10	Street a	nd Numbe	؛r			City		Sta	ate		
Plugging method used     Date Plugged     19       Plugging approved by:     Cement Plugs were placed as follows:       Basin Supervisor     No.     Depth of Plug       FOR USE OF STATE ENGINEER ONLY     No. of Sacks Used       Date Received     Image: Social S	Tons of (	Clay used		Tons of Re	oughage v	used	Ty	pe of ro	oughage		
Plugging approved by: Cement Plugs were placed as follows: No. Depth of Plug No. of Sacks Used No. of Sacks Used No. of Sacks Used Date Received No. of Sacks Used Date Received No. of Sacks Used Date	Plugging	g method v	ıseđ		<b></b>		Date Plu	ugged			
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File No $L = 5533$ Use $\sqrt{27}$ Location No. $(k, 36)/57246$	·····	·····		Basin Supe	ervisor	<b></b>	From	To			
Date Received $1-0.5$ $3.01$ File No $L = 5533$ Use $Location No. (6.36.15.246)$	1	FOR USI	e of stati	E ENGINEER OF	NLY						
Date Received $\frac{1}{12}$ $\frac{1}{1$							_				
File No $L = 5533$ Use $100$ Location No. $16.36.15240$	Date	Received -	<u> </u>		/	·			- 8 6 MIL 1 - 8		
File No $L = 5533$ Use $L_{0.11}$ Location No. $(6.36.1524)$		•-℃-♂. /	- 4-83	it con							
File No $L = 5533$ Use $\int (0.21)$ Location No. $\int (6.36e/5) 24e$											
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Sec	tion	6									
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LOG OF WELL

Depth	in Feet	Thickness	Color	Type of Material Encountered
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2!	32			
32	70			Sund & Band
70	100			
				Sand à bater
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

-----Well Driller

## Form WR-23

STATE ENGINEER OFFICE



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WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1	<u>S</u> E	NE		(A) Owner of well	arvey Blancett		
		Jul.		Street and Number City Lovington		State	New Mexico
	7	07	م اسر	(B) Drilling Contractor	4 of Section 15 Claude Tatum 24 W. Washingto	n an Twp. 16 Lice	a is located in the Rge. 36 ense No. WD33
				City Lovingon,		State	New Mex1co
				Drilling was commenced.	December 2		19 69
				Drilling was completed	December 7		<u>19_68</u>
(PI	at of 64	l0 acres)		5 .			

Elevation at top of casing in feet above sea	level	tal depth	of w	ell 112
State whether well is shallow or artesian	Shallow Depth	to water	upon	completion 70

Section	2		PRINCI	PAL WATER-BEARING STRATA
No.	Depth From	in Feet   To	Thickness in Feet	Description of Water-Bearing Formation
1	70	112	42	Water Sands
2				
3				
4				
5				

Section 3				RECOR	D OF CAS	NG		
Dia	Pounds	Threads	Depth		Depth		Perforations	
in.	ft.	in	Top	Bottom	reet	Type Shoe -	From From	То
7 OD	15	10	0	112	112	None	90	112
	-							
				-				l 
			1		) )			

Section 4

### RECORD OF MUDDING AND CEMENTING

Depth	in Feet	Diameter	Tons	No. Sacks of	Methods IIsed
From	То	Hole in in.	Clay	Cement	Methods obed
42-777-88449/FB 18 8-4775-98844 ⁹⁶ 9					
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	1				

Section 5

## PLUGGING RECORD

Name of Plugging Contractor		License No	
Street and Number	City	State	
Tons of Clay used	Tons of Roughage used	Type of roughage	
Plugging method used		Date Plugged	
Plugging approved by:		Cement Plugs were placed as fo	llows:
	P		

Basin Supervisor	No.	Depth From	of Plug To	No. of Sacks Used
FOR USE OF STATE ENGINEER ONLY				
Date Received				
52 38 121 S - ELLI - 0151	L	l	l 	
File No. 44433 Use 7	DoiN	L	ocation No	16.36.15. 24142

Section 6

LOG OF WELL

Depth	in Feet	Thickness		
From	То	in Feet	Color	Type of Material Encountered
0	5	-5	Ped	Ton Sendr Boil
5	- 25	20	White	Celliche & Rock
25	70	45	Red	Sandstone
70	112	42	Red	Quicksend
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99.0 ⁴⁴ 10.044111 91.0744 1001119203 (M. 1011) 10.02411939 20110				
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

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Kauke Talunk Well Driller 1 į ι.

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NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION Notice Is hereby diven that pinsuant to the New Mexico Water, Quality Source Commercient Security in the Security of the Security Securit STATE OF NEW MEXICO County of Bernalillo SS Control Commission Regulations, the ollowing discharge plan applications has been submitted to the Director of Bill Tafoya being duly sworn declares and says that he is Classified the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mex-Advertising manager of The Albuquerque Journal, and that this newspaper ico 87505, Telephone (505) 827-7131: (GW-201) - NALCO/EXXON ENER-GY CHEMICALS, L.P., ?.O. BOX 87, Sugar Land, Texas, 77487-0087 has submitted in Dis-harge plan application for their fibbs facility located in the SE/4, Section 35, Township 16 South, Range 37 Township 18 South, Range 37 is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is ship 18 South, Range NMPM, Leas County, N hereto attached, was published in said paper in the regular daily edition, Maxico All effluents that a d at the fu ility will _times, the first publication being of the  $\frac{1}{2}$  day for cted in a clo d too tank and transported offsite for disposal at an OCD approved facility; of Ċ 1995, and the subsequent consecutive publications Groundwater most (ikely to affected by a split, leak, accidental discharge to the surf , 1995 ÓI on CLA th of app:culman tank discribed ( dration of approxit Sworn and subscribed to before me, a notary Public in 1.1.1 #钟献 !!!!! and for the County of Bernalillo and State of New われれ、おけいのかくし Nh day of 1995 Mexico, this_ SOTAR/ FUELK STATE OF NEW MEXICO 5-20-98 My Commission Expires PRICE Statement to come at end of month. Megan Harcin it the te 811932 CLA-22-A (R-1/93) ACCOUNT NUMBER likely its effected by i i op 6 H H Welking the I Pricity. vitien it has four V Chi

7131

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# Affidavit of Publication

STATE OF NEW MEXICO

COUNTY OF LEA

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Joyce Clemens being first duly sworn on oath Adv. Director deposes and says that he is of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

#### Notice Of Publication

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	<u> </u>
County, Nexe Mexico, was published in	a regular and
entire issue of THE LOVINGTON DAILY not in any supplement thereof, once and	LEADER and
same day of the week, for one (1)	day
consecutive weeks, beginning with the iss	sue of
June 23	<b>95</b>
and ending with the issue of	
June 23	
And that the cost of publishing sai 48.24 sum of \$	d notice is the

which sum has been (Paid) (Assessed) as Court ( $O_{1}$	Costs
Subscribed and sworn to before me this	26th
day of 19	95
Jean Serier	
// Notary Public, Lea County, New Me	exico
My Commission Expires	98

#### LEGAL NOTICE NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan applications has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505)827-7131:

(GW-201) - NALCO/EXXON ENERGY CHEMICALS, L.P., P.O. BOX 87, Sugar Land, Texas, 77487-0087 has submitted a Diacharge plan application for their Hobbs facility located in the SE/4, Section 35, Township 18 South, Range 37 East, NMPM, Lea County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank and transported offsite for disposal at an OCD approved facility; Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 100 mg/L. The discharge plan addresses how spilla, leaks, and other accidental discharges to the surface will be managed.

(GW:202) PRO-KEM INC. PO/BOX/1506, 2400 South Main, Lovington, NM, 88260 has submitted a Discharge plan application for their Lovington facility located in the SE/4 NW/4, Section 15, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank and transported offsite for disposal at an OCD approved facility; Groundwater most likely to be affected by a apill, leak, or accidental discharge to the surface is at a depth of approximately 26 feet with a total dissolved solids concentration of approximately 100 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

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If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of the State of New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 9th day of June, 1995.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION WILLIAM J. LEMAY Director

Published in the Lovington Daily Leader June 23, 1995.

SEAL

**NOTICE OF PUBLICATION** 



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(GW-202) -PRO-KEM, INC., P.O. BOX 1506, 2400 South Main, Lovington, NM, 88260 has submitted a Discharge plan application for their Lovington facility located in the SE/4 NW/4, Section 15, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico. All effluents that may be generated at the facility will be collected in a closed top tank and transported offsite for disposal at an OCD approved facility; Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 26 feet with a total dissolved solids concentration of approximately 100 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 9th day of
June 9, 1995. The described action will have no effect on listerinsperies of NEW ACEVICO
wales the important with the ment of the MEXICO
OIL CONSERVATION DIVISION
Date June 15, 1995
Consultation # GW950CD1
SEAL WILLIAM J. LEMAY, Director
Approved by Bran Bann
U.S. FISH and WILDLIFE SERVICE
ALBUQUERQUE, NEW MEXICO

11-18-96 DNS -see Gw-202 (Pit Cluse) file [R], Groundwater depth per consultants well search shows groundwater more like 60'.

#### STATE OF NEW MEXICO

) ss.

(0 - 73 - 95

#### COUNTY OF LEA

being first duly sworn on oath Joyce Clemens deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitl

Notice Of Publication

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County XEVEX XXXXXXX was published in a regular and	the
entire issue of THE LOVINGTON DAILY LEADER and	Fa
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canagantikexweeks, beginning with the issue of	
June 14	
and ending with the issue of .	
And that the cost of publishing said notice is the	
sum of \$	

My Commission' Expires Sept. 28 19.98

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LEGAL NOTICE NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY, MINERALS AND NATUFAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION Notice is hereby given that pursuant to New Mexico Water

Quality Control Commission Regulations (the following dis charge plantrenevral application) has been submitted to the Director of the Cil Conservation Division, 2040 South Pacheo, Santa Fe, New Mexico 87505, Telephone (505)827-7131:

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GIVEN under the Seal of the State of New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 9th day of June, 1995.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION WILLIAM J. LEMAY Director

SEAL

Published in the Lovington Daily Leader June 14, 1995.



# ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION 2040 S. PACHECO SANTA FE, NEW MEXICO 87505 (505) 827-7131

June 12, 1995

## CERTIFIED MAIL RETURN RECEIPT NO. Z-765-962-700

Mr. Gerald Phillips President PRO-KEM, INC. P.O. Box 1506 Lovington, NM 88260

## RE: Discharge Plan GW-202 PRO-KEM,Inc. Lovington facility Lea County, New Mexico

Dear Mr. Phillips:

The NMOCD has received the proposed PRO-KEM Inc. discharge plan application for the facility located in SE/4 NW/4, Section 15, Township 16 South, Range 36 East, NMPM, Lea County, New Mexico. The application filing fee in the amount of \$50 and flat fee of \$1380 was received by the NMOCD along with the discharge plan application. The NMOCD has prepared and sent out the public notice for the PRO-KEM Inc. facility as stated in WQCC section 3-108 and has performed a preliminary review of the discharge plan as proposed by PRO-KEM Inc. as received by the OCD on June 7, 1995.

The following comments and request for additional information are based on the review of the PRO-KEM Inc. application. Please note that unless otherwise stated, response to all comments shall be received and reviewed by the OCD prior to approval of the discharge plan application.

Refer to the application page submitted by PRO-KEM Inc. as signed by Mr. Gerald Phillips on May 24, 1995.

A. UNDER ITEM X. - Submit a procedure outlining routine inspection and maintenance plan to ensure permit compliance.

Mr. Gerald Phillips June 12, 1995 Page 2

- B. UNDER ITEM XI. -Submit a contingency plan for reporting and dealing with clean-up of spills or releases. Include NMOCD Rule 116 and WQCC 1-203 spill reporting measures.
- C. UNDER ITEM XII. Submit geological and Hydrological parameters- NOTE: NMOCD referenced State Engineer records in order to obtain TDS and depth to groundwater in order to publish the public notice for this facility: TDS(total dissolved solids)=100 mg/l and depth to groundwater=26'
- D. UNDER ITEM XIII. Submit a statement agreeing to comply with NMOCD Rule 116 and WQCC 1-203 spill reporting requirements.

Submittal of the requested information and commitments in a timely fashion will expedite the final review of the application and approval of the discharge plan.

If you have any questions, please feel free to call me at (505)-827-7156.

Sincerely,

Patricio W. Sanchez Petroleum Engineer

xc: Mr. Wayne Price-Environmental Engineer

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Immediately upon completion of publication, please send the following to this office:

- 1. Publisher's affidavit in duplicate.
- 2. Statement of cost (also in duplicate.)
- 2. CERTIFIED invoices for prompt payment.

We should have these immediately after publication in order that the legal notice will be available for the hearing which it advertises, and also so that there will be no delay in your receiving payment.

Please publish the notice no later than _____lune_16____, 1995.

Sincerely,

Martinez

Administrative Secretary

Attachment

VILLAGRA BUILDING - 408 Galisteo Forestry and Resources Conservation Division P.O. Box 1948 87504-1948 827-5830 Park and Recreation Division P.O. Box 1147 87504-1147 827-7485 2040 South Pecheco Office of the Secretary 827-5950 Administrative Services 827-5925 Energy Conservation & Management 827-5900 Mining and Minerals 827-5970 Oli Conservation 827-7131

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- 1. Publisher's affidavit in duplicate.
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Please publish the notice no later than ______ June 16______, 1995.

Sincerely,

the entire notice.

Sally E. Martinez Administrative Secretary

Attachment

VILLAGRA BUILDING - 408 Galistee

Forestry and Resources Conservation Division P.O. Box 1948 87504-1948 827-5830 Park and Recreation Division P.O. Box 1147 87504-1147 827-7465 Office of the Secretary 827-5950 Administrative Services 827-5925 Energy Conservation & Management 827-5900

2040 South Pacheco

Mining and Minerals 827-5970 Oil Conservation 827-7131



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Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 9th day of June 9, 1995.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION 0 WILLIAM J. LEMAY, Director

SEAL

## ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

CUARDIANA SAFETY @CLARKE AMERICIAN

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I hereby acknowledge recei	pt of check No. dated 5-255
or cash received on $6-13$	3-95 in the amount of $c$ 142000
from PRO-KEM	INC
forGW-22	LOVINGTAN SERVICE ERALLITY
(Tenility Neme) Submitted by:	COP Na.
Submitted to ASD by . CH	Dis Eustine
Received in ASD by	Date: 6-13-75
Filing Fee	Date: 0-13-95
Modification (New	Facility _V_ Renewal
	(pei/y)
Organization Code 525	Applicable Fy 95
To be deposited in the Wate	er Quality Management Fund.
Full Payment or	Annual Increment
Full Payment or	Annual Increment
Full Payment or	Annual Increment
Full Payment or	Annual Increment Western Commerce Bank
Full Payment or	Annual Increment Western Commerce Bank Lovington, NM Tel (505) 396-2831
Full Payment or <b>PRO-KEM, INC.</b> BOX 1506 396-7433 LOVINGTON, NM 88260	Annual Increment Western Commerce Bank Lovington, NM Tel (505) 396-2831
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