

GW - 278

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

---

1997-1988



**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

August 21, 1997

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-765-962-964**

Mr. Bob Patterson  
Rowland Trucking  
P.O. Box 99  
Eunice, New Mexico 88231

**Re: Inspection Report  
Carlsbad Facility  
Carlsbad, New Mexico**

Dear Mr. Patterson:

The New Mexico Oil Conservation Division (OCD) would like to thank you for your cooperation during the July 29, 1997 inspection of the Carlsbad facility located in Carlsbad, New Mexico. Comments from the inspection conducted are as follows:

1. **Drum Storage:** All drums that contain materials other than fresh water must be stored on an impermeable pad (i.e. concrete, asphalt, or other suitable containment) with curbing. All Empty drums should be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad with curbing.

Empty drums, and drums containing fluids were located within the facility that were not properly stored.

All drums should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill, or ignite.

2. **Process Area:** All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

The KCl mixing vat needs containment to prevent discharge to the ground surface.

The areas around the truck wash and the frac tank clean-out show evidence that leaks and spills are reaching the ground surface.

Mr. Bob Patterson

August 21, 1997

Page 2

3. **Above Ground Tanks:** All above ground tanks which contain fluids other than fresh water or alcohol must be bermed to contain a volume of one-third more than the total volume of the largest or all interconnected tanks. All new facilities or modifications to existing facilities must have the tanks placed on an impermeable pad so that leaks can be identified.

The above ground tanks holding frac tank clean-out wastes does not have proper berming.

The brine storage area does not have proper berming.

The used motor oil container does not have proper berming.

4. **Above Ground Saddle Tanks:** Above ground saddle tanks must have pad and curb type of containment below them unless they contain alcohol or fluids which are gases at normal atmospheric pressure and temperature. No berms are required for saddle tanks.
5. **Tank Labeling:** All tanks should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill, or ignite.
6. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing and visual inspection of cleaned out tanks /or sumps.

The wastes collected in the below grade sump at the truck wash area are non-exempt and need to be tested for hazardous constituents and receive OCD approval prior to disposal at an OCD approved site. Please test the truck wash wastes and submit the results to the OCD by October 1, 1997.

Fluids are present in the leak detection system at the frac tank washout. The fluids need to be removed and the leak detection system monitored monthly for leaks in the washout. Frac tank washout fluids are exempt wastes and should be disposed of properly.

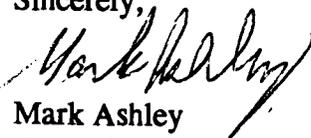
7. **Underground Process/Wastewater Lines:** All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter. Companies may propose various methods for testing such as pressure testing or other means acceptable to the OCD.

Mr. Bob Patterson  
August 21, 1997  
Page 3

8. **Housekeeping:** All systems designed for spill collection/prevention should be inspected frequently to ensure proper operation and to prevent overtopping or system failure.
9. **Spill Reporting:** All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the appropriate OCD District Office.

Once again, thank you for your time during our recent visit to your facility. If you have any questions, please call me at (505) 827-7155.

Sincerely,



Mark Ashley  
Geologist

xc: OCD Artesia Office

P 288 258 964

US Postal Service  
**Receipt for Certified Mail**  
No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to	
Street & Number	
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PS Form 3800 April 1995

# ROWLAND TRUCKING COMPANY

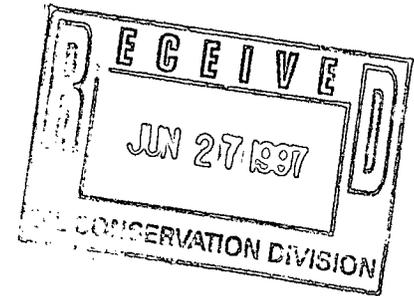
PHONE  
(505) 397-4994

418 SOUTH GRIMES  
HOBBS, NEW MEXICO 88240

PHONE  
(505) 393-9023

June 25, 1997

State of New Mexico  
Energy, Minerals and Natural Resources Dept.  
Oil Conservation Division  
2040 S Pacheco  
Santa Fe, NM 87505



RE: Discharge Plan GW-278  
Carlsbad Facility (Rowland Trucking Co., Inc.)  
Eddy County, New Mexico

Dear Mr. LeMay,

Enclosed you will have a check payable to NMED Water Quality Management in the amount of \$1,430 to cover the \$50 filing fee and the \$1,380 for oil field service companies five year discharge plan.

Thank you for your assistance in preparing our approved plan.

Sincerely,

ROWLAND TRUCKING CO., INC.

  
Peter M. Turner  
Vice-president

PMT/lg

ROWLAND TRUCKING CO., INC

ACCOUNT NO.		NMED WATER QUALITY MANAGEMENT			CHECK NO: 21324	
VOUCHER	INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	
	FIVE YEAR DISCHARGE PLAN FILING FEE			1,380.00 50.00		
				CHECK TOTAL	\$1,430.00	

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Personal	Time 2:25 PM	Date 6-10-97
<u>Originating Party</u> MARK ASHCY		<u>Other Parties</u> PETE TURNER
<u>Subject</u> ROMANO TRUCKS - CARLSBAD YARD (GW-2PO) VACUUM TRAILERS & FRK TANK WASTES.		
<u>Discussion</u> I ASKED PETE TO DETERMINE IF THE WASTES WERE EXEMPT OR NON-EXEMPT		
<u>Conclusions or Agreements</u> PETE STATED THAT THE WASTES FROM THE VACUUM TRAILERS & FRK TANKS WERE EXEMPT		
<u>Distribution</u>	Signed Mark Ashcy	

NOTICE OF PUBLICATION

RECEIVED

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

Environmental Bureau  
Oil Conservation Division

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**(GW-278) - Rowland Trucking Company, Inc., Pete M. Turner, (505) 885-2053, 1609 East Green, Carlsbad, New Mexico 88220, has submitted a discharge application for the Carlsbad Terminal located in Section 33 and 34, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico. All wastes generated will be stored in closed top receptacles prior to offsite disposal or recycling at an OCD approved site. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 1,500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.**

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 applications, 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 a public hearing may be requested by any interested person. Requests for a 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.

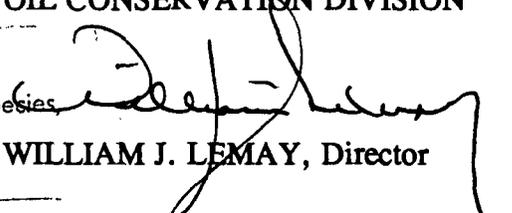
If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on the information in the discharge plan application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 19th day of March 1997.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

NO EFFECT FINDING

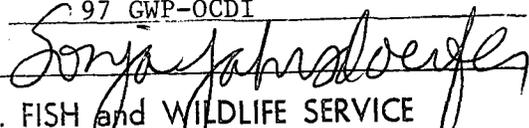
The described action will have no effect on listed species, wetlands, or other important wildlife resources.

  
WILLIAM J. LEMAY, Director

SEAL

Date April 17, 1997

Case submission # 97 GWP-OCDI

Approved by 

U.S. FISH and WILDLIFE SERVICE  
NEW MEXICO ECOLOGICAL SERVICES FIELD OFFICE  
ALBUQUERQUE, NEW MEXICO

# Affidavit of Publication

No 19054

State of New Mexico,  
County of Eddy, ss.

Amy McKay,  
being first duly sworn, on oath says:

That she is Business Manager  
of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

March 28, 19 97  
\_\_\_\_\_, 19 \_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_

That the cost of publication is \$ 43.32,  
and that payment thereof has been made and will be assessed as court costs.

Amy McKay

Subscribed and sworn to before me this

1st day of April, 19 97

Donna Crump

My commission expires 08/01/98  
Notary Public

March 28, 1997

## 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 through Friday. Prior to ruling on any proposed discharge plan applications, 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 a public hearing may be requested by any interested person. Requests for a 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 the information in the discharge plan application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 19th day of March 1997.

STATE OF NEW MEXICO  
OIL CONSERVATION  
DIVISION

WILLIAM J. LEMAY, Director

OK NAA  
4-7-97

# The Santa Fe New Mexican

Since 1849. We Read You.

NM OIL DIVISION

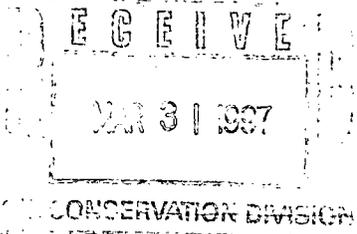
MA OK  
#2-97

AD NUMBER: 620370

ACCOUNT: 56689

LEGAL NO: 61432

P.O. #: 96-199-002997



168	LINES	ONCE	at \$	67.20
Affidavits:				5.25
Tax:				4.53
Total:				\$ 76.98

### AFFIDAVIT OF PUBLICATION

#### 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 renewal application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico, 87505, Telephone (505) 827-7131:

(GW-278) - Rowland Trucking Company, Inc., Pete M. Turner, (505) 885-2053, 1609 East Green, Carlsbad, New Mexico 88220, has submitted a discharge application for the Carlsbad Terminal located in Section 33 and 34, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico. All wastes generated will be stored in closed top receptacles prior to offsite disposal or recycling at an OCD approved site. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 1,500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

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 applications, 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 a public hearing may be requested by any interested person. Requests for a 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 renewal based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan renewal based on the information in the discharge plan application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 19th day of March 1997.

STATE OF NEW MEXICO  
OIL CONSERVATION  
DIVISION  
WILLIAM J. LEMAY,  
Director  
Legal #61432  
Pub. March 26, 1997

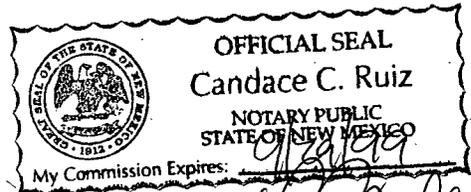
STATE OF NEW MEXICO  
COUNTY OF SANTA FE

I, BETSY PERNER being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily news paper 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 # 61432 a copy of which is hereto attached was published in said newspaper once each WEEK for ONE consecutive week(s) and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 26 day of MARCH 1997 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ Betsy Perner  
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 26 day of MARCH A.D., 1997

Notary Commission Expires \_\_\_\_\_



Candace C. Ruiz



**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

March 21, 1997

**CARLSBAD CURRENT ARGUS**  
P. O. Box 1629  
Carlsbad, New Mexico 88221

**RE: NOTICE OF PUBLICATION**

**ATTN: ADVERTISING MANAGER**

Dear Sir/Madam:

Please publish the attached notice one time immediately on receipt of this request. Please proofread carefully, as any error in a land description or in a key word or phrase can invalidate the entire notice.

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.)**
3. **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 March 28, 1997.

Sincerely,

*Sally E. Martinez*  
Sally E. Martinez  
Administrative Secretary

Attachment

P 269 262 670

US Postal Service  
Receipt for Certified Mail  
No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to	Carlsbad Current
Street & Number	Argus
Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	Published March 26th in the "New Mexican"

PS Form 3800 April 1995

NOTICE OF PUBLICATION

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

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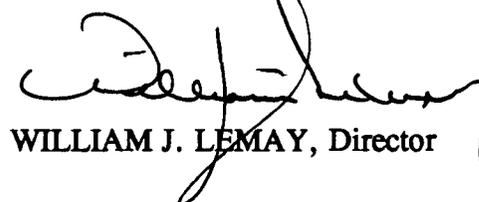
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If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on the information in the discharge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

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 19th day of March 1997.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY, Director

S E A L

● NOTICE OF PUBLICATION ●

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

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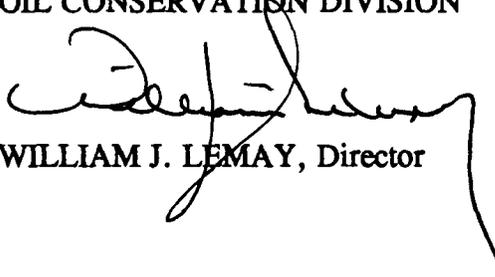
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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 19th day of March 1997.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
WILLIAM J. LEMAY, Director

S E A L



TRUCKING CO., INC.

P.O. BOX 340

HOBBS, NEW MEXICO 88241

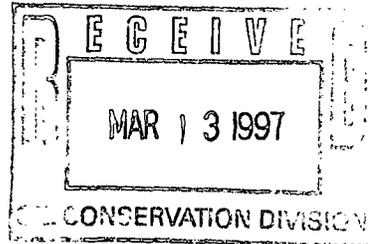
MARCH 11, 1997

fw-278

PHONE  
{505} 397-0199

FAX  
{505} 397-0392

OIL CONSERVATION DIVISION  
2040 SOUTH PACHECO  
SANTA FE, NEW MEXICO 87505



ATTN: ENVIRONMENTAL DIVISION  
MR. MARK ASHLEY

DEAR SIR,

ENCLOSED IS THE DISCHARGE PLAN FOR THE CARLSBAD TERMINAL. IF YOU HAVE ANY QUESTIONS OR NEED MORE INFORMATION PLEASE CONTACT BOB PATTERSON AT THE EUNICE TERMINAL. (505) 394-2581 OR P. O. BOX 99, EUNICE, NM 88231.

SINCERELY,

BOB PATTERSON

State of New Mexico  
Energy, Minerals and Natural Resources Department  
**OIL CONSERVATION DIVISION**  
P.O. Box 2088  
Santa Fe, NM 87501

6W-278

**DISCHARGE PLAN APPLICATION FOR OILFIELD SERVICE FACILITIES**

(Refer to OCD Guidelines for assistance in completing the application.)

- I. TYPE: Oil & Gas Service Company
- II. OPERATOR: Rowland Trucking Company, Inc.  
ADDRESS: 1609 East Green, Carlsbad, New Mexico 88220  
CONTACT PERSON: Pete M. Turner PHONE: 885-2053
- III. LOCATION: 1/4 LOT/4 Section 33 & 34 Township 21 South Range 17 East  
Submit large scale topographic map showing exact location.
- IV. Attach the name and address of the landowner of the disposal facility site.
- V. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tank on the facility.
- VI. Attach a description of all materials stored or used at the facility.
- VII. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
- VIII. Attach a description of current liquid and solid waste collection/treatment/disposal procedure:
- IX. Attach a description of proposed modifications to existing collection/treatment/disposal system:
- X. Attach a routine inspection and maintenance plan to ensure permit compliance.
- XI. Attach a contingency plan for reporting and clean-up of spills or releases.
- XII. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact fresh water. Depth to and quality of ground water must be included.
- XIII. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.
- XIV. **CERTIFICATION**  
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Pete M. Turner Title: Manager

Signature: Pete M. Turner Date: 3-10-97

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

## LIST OF ATTACHMENTS

- A. Notification of Hazardous Waste Activity
- B. Site Location Map & Site Layout Map
- C. Discharge Plan
- D. CRI Shipping Documents
- E. Material Safety Data Sheets
- F. Summary of Sampling Activities
- G. Summary of Analytical Results
- H. Chain of Custody

**ATTACHMENT A**

4-10-87  
DA



ACKNOWLEDGEMENT OF NOTIFICATION  
OF HAZARDOUS WASTE ACTIVITY  
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA ID NUMBER   ▶   NML982004707

ROWLAND TRUCKING CO  
HESSELSCHWERDT ED  
PO BOX 127  
CARLSBAD

NM   88220

INSTALLATION ADDRESS   ▶

1009 E GREEN  
CARLSBAD

NM   88220

R.V.  
3-31-89  
DA  
4-5-89

United States Environmental Protection Agency  
Washington, DC 20480  
**EPA Notification of Hazardous Waste Activity**  
Please refer to the instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

1021  
9492

**For Official Use Only**

Comments	
C	
C	
Approved	Date Received (yr. mo. day)
E F	98-256-4767
T/A C	1

I. Name of Installation  
ROWLAND TRUCKING COMPANY

II. Installation Mailing Address  
Street or P.O. Box  
3 P O B O X 1 2 7  
City or Town State ZIP Code  
CARLSBAD NM 813220

DS

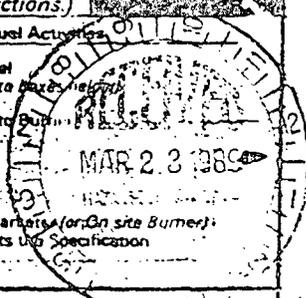
III. Location of Installation  
Street or Route Number  
51609 E. GREEN  
City or Town State ZIP Code  
CARLSBAD NM 813220

IV. Installation Contact  
Name and Title (last, first, and job title) Phone Number (area code and number)  
2 E D H E S S E T S C H W E R D T 5 0 5 8 8 5 2 0 5 3

V. Ownership  
A. Name of Installation's Legal Owner B. Type of Ownership (enter code)  
R U N I C H E M I N T E R N A T I O N A L P

VI. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to instructions.)

A. Hazardous Waste Activity		B. Used Oil Fuel Activities	
<input checked="" type="checkbox"/> 1a. Generator	<input checked="" type="checkbox"/> 1b. Less than 1,000 kg/mo.	<input type="checkbox"/> 6. Off-Specification Used Oil Fuel (enter 'X' and mark appropriate boxes below)	
<input type="checkbox"/> 2. Transporter		<input type="checkbox"/> a. Generator Marking to Burner	
<input type="checkbox"/> 3. Treater/Storer/Disposer		<input type="checkbox"/> b. Other Marketer	
<input type="checkbox"/> 4. Underground Injection		<input type="checkbox"/> c. Burner	
<input type="checkbox"/> 5. Market or Burn Hazardous Waste Fuel (enter 'X' and mark appropriate boxes below)		<input type="checkbox"/> 7. Specification Used Oil Fuel Marking (for On-site Burner) Who First Claims the Oil Meets the Specification	
<input type="checkbox"/> a. Generator Marking to Burner			
<input type="checkbox"/> b. Other Marketer			
<input type="checkbox"/> c. Burner			



VII. Waste Fuel Burning: Type of Combustion Device (enter 'X' in all appropriate boxes to indicate type of combustion devices) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.  
 A. Utility Boiler  B. Industrial Boiler  C. Industrial Furnace

VIII. Mode of Transportation (transporters only — enter 'X' in the appropriate box(es))  
 A. Air  B. Rail  C. Highway  D. Water  E. Other (specify)

IX. First or Subsequent Notification  
Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.  
 A. First Notification  B. Subsequent Notification (complete item C)  
C. Installation's EPA ID Number

ID - For Official Use Only										
C										T/A/C
W										1

X. Description of Hazardous Wastes (continued from front)

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 CFR Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
7	8	9	10	11	12

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. Listed Infectious Wastes. Enter the four-digit number from 40 CFR Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54
----	----	----	----	----	----

E. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. (See 40 CFR Parts 261.21 - 261.24)

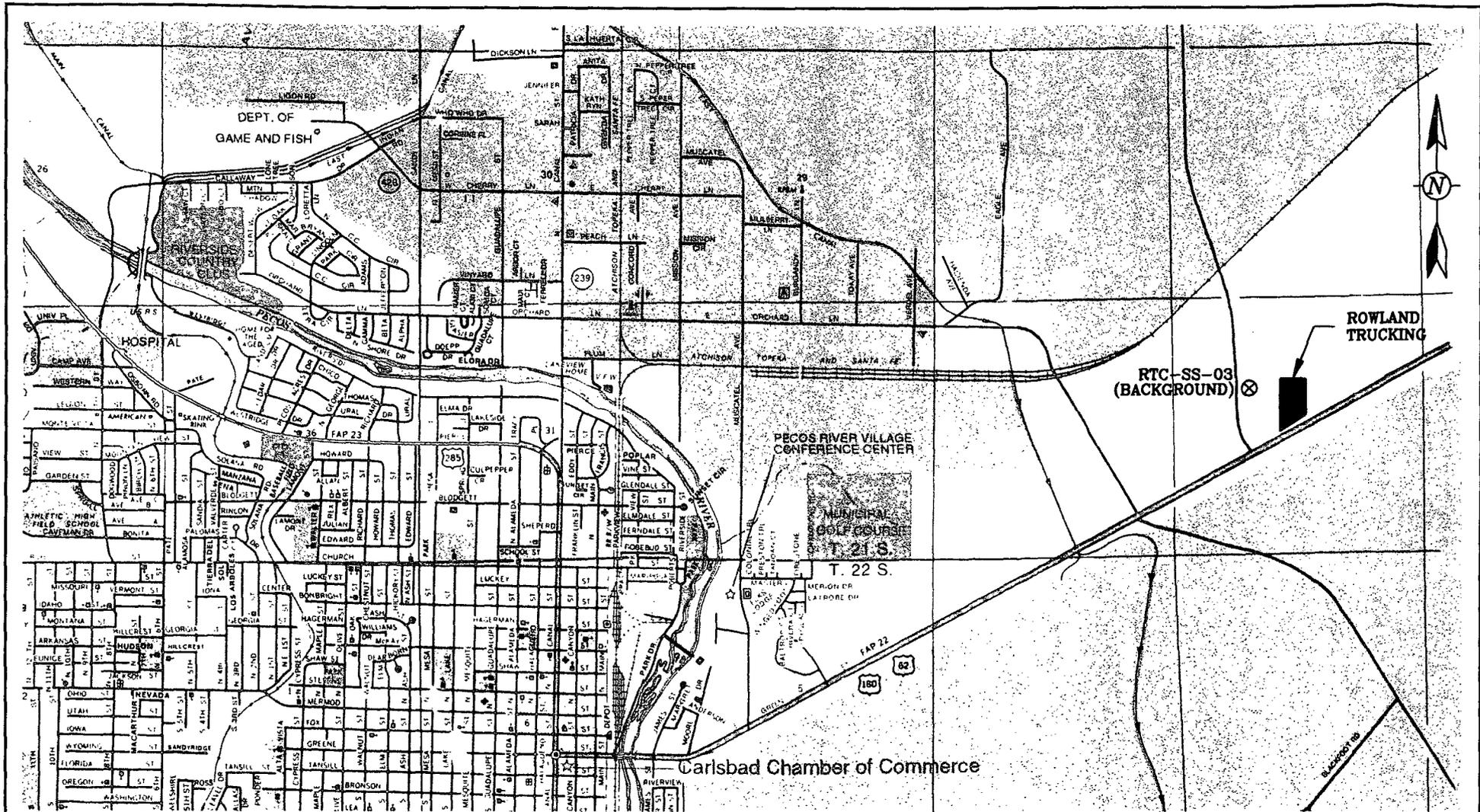
1. Ignitable (D001)     
  2. Corrosive (D002)     
  3. Reactive (D003)     
  4. Toxic (D004)

XI. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature <i>Charles N. Root</i>	Name and Official Title (type or print) Charles N. Root Regulatory Aff Dir	Date Signed 2-24-89
-------------------------------------	---	------------------------

**ATTACHMENT B**



ROWLAND TRUCKING

RTC-SS-03 (BACKGROUND) ⊗

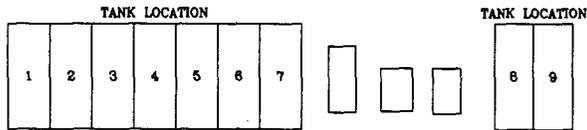
ROWLAND TRUCKING CO.  
CARLSBAD, NEW MEXICO

FIGURE 3-1  
SITE LOCATION AND  
SAMPLING LOCATION MAP

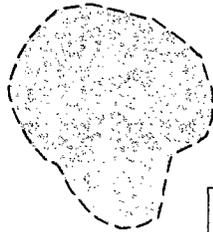
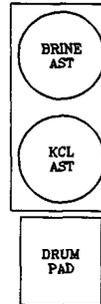


Tetra Tech EM Inc.

SOURCE: MODIFIED FROM RILEY MARKETING INC., 1998



STORAGE BINS



CEMENT PIT UNDER CONSTRUCTION

RTC-SL-01  
RTC-SL-01D

TRUCK WASH RAMP



AST

TOOL SHED

RTC-SS-02A & .2B  
RTC-SS-02AD & -02BD



HILLSIDE

TRUCK PARKING

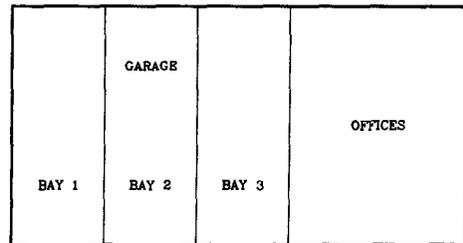


ELECTRIC POLE

REFUEL STATION

WHITE AST

PROPANE TANK

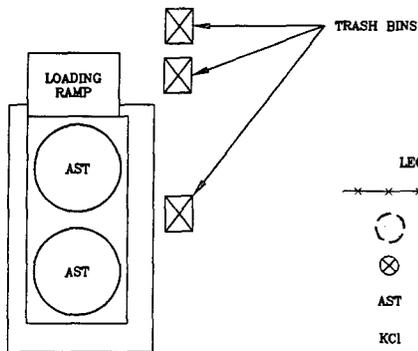


DRIVE BAYS

OFFICE PARKING

HILLSIDE

EMPLOYEE PARKING



LEGEND:

--- FENCE

○ AREAS DELINEATED DURING EM31 SUBSURFACE SURVEY

⊗ SAMPLING LOCATION

AST ABOVEGROUND STORAGE TANK

KCl POTASSIUM CHLORIDE

ROWLAND TRUCKING CO.  
CARLSBAD, NEW MEXICO

FIGURE 3-2  
SITE LAYOUT AND  
SAMPLING LOCATION MAP



Tetra Tech EM Inc.

**ATTACHMENT C**



TRUCKING CO., INC.

P. O. BOX 340  
HOBBS, NEW MEXICO 88241

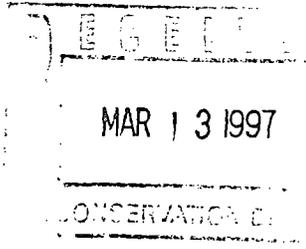
MARCH 11, 1997

PHONE  
[505] 397-0199

FAX  
[505] 397-0392

fw-278

OIL CONSERVATION DIVISION  
2040 SOUTH PACHECO  
SANTA FE, NEW MEXICO 87505



ATTN: ENVIRONMENTAL DIVISION  
MR. MARK ASHLEY

DEAR SIR,

ENCLOSED IS THE DISCHARGE PLAN FOR THE CARLSBAD TERMINAL. IF YOU HAVE ANY QUESTIONS OR NEED MORE INFORMATION PLEASE CONTACT BOB PATTERSON AT THE EUNICE TERMINAL. (505) 394-2581 OR P. O. BOX 99, EUNICE, NM 88231.

SINCERELY,

BOB PATTERSON

State of New Mexico  
Energy, Minerals and Natural Resources Department  
**OIL CONSERVATION DIVISION**  
P.O. Box 2088  
Santa Fe, NM 87501

6W-278

**DISCHARGE PLAN APPLICATION FOR OILFIELD SERVICE FACILITIES**

(Refer to OCD Guidelines for assistance in completing the application.)

- I. TYPE: Oil & Gas Service Company
  
- II. OPERATOR: Rowland Trucking Company, Inc.  
ADDRESS: 1609 East Green, Carlsbad, New Mexico 88220  
CONTACT PERSON: Pete M. Turner PHONE: 885-2053
  
- III. LOCATION: 1/4 LOT/4 Section 33 & 34 Township 21 South Range 17 East  
Submit large scale topographic map showing exact location.
  
- IV. Attach the name and address of the landowner of the disposal facility site.
  
- V. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tank on the facility.
  
- VI. Attach a description of all materials stored or used at the facility.
  
- VII. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
  
- VIII. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
  
- IX. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
  
- X. Attach a routine inspection and maintenance plan to ensure permit compliance.
  
- XI. Attach a contingency plan for reporting and clean-up of spills or releases.
  
- XII. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact fresh water. Depth to and quality of ground water must be included.
  
- XIII. Attach such other information as is necessary to demonstrate compliance with any other OCM rules, regulations and/or orders.
  
- XIV. **CERTIFICATION**  
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Pete M. Turner Title: Manager  
Signature: *Pete M. Turner* Date: 3-10-97

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

STATE OF NEW MEXICO  
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
2040 SOUTH PACHECO  
SANTA FE, NEW MEXICO 87505

**DISCHARGE PLAN APPLICATION**

ROWLAND TRUCKING CO., INC.  
1609 EAST GREEN  
CARLSBAD, NEW MEXICO 88220

**I. TYPE OF OPERATION**

AN OIL AND GAS SERVICE COMPANY THAT PROVIDES TRANSPORTATION OF FLUIDS, USED FOR, OR IN CONJUNCTION WITH, THE DISCOVERY, DEVELOPMENT, PRODUCTION, REFINING, PROCESSING, AND OR STORAGE OF NATURAL GAS AND PETROLEUM, AND ITS PRODUCTS AND BY-PRODUCTS.

**II. NAME OF OPERATOR**

ROWLAND TRUCKING CO., INC.  
1609 EAST GREEN  
CARLSBAD, NEW MEXICO 88220  
(505) 885-2053  
PETE M. TURNER, MANAGER

**III. LOCATION OF DISCHARGE PLAN**

LOT 4 OF THE INDUSTRIAL PARK SUBDIVISION LOCATED IN PARTS OF SECTIONS 33 & 34, TOWNSHIP 21 SOUTH, RANGE 37 EAST  
(SEE LOCATION MAP, EXHIBIT I)

**IV. LANDOWNER**

ROWLAND TRUCKING CO., INC.  
P. O. BOX 340  
HOBBS, NEW MEXICO 88240

**V. FACILITY DESCRIPTION**

SEE EXHIBIT II.

**VI. STORED MATERIAL DESCRIPTION**

SEE EXHIBIT III.

**VII. SOURCES AND ESTIMATED QUANTITIES OF WASTES**

1. VACUUM TRAILER WASTES: VACUUM TRAILERS ARE WASHED OUT WITH FRESH WATER INTO A WASH-OUT PIT. THE FREE WATER GENERATED BY THIS PROCESS IS APPROXIMATELY TEN BARRELS A DAY. A MINOR AMOUNT OF SOLIDS ARE GENERATED FROM THIS TRAILER WASHOUT.

2. FRAC TANK WASTES: FRAC TANKS ARE JETTED AND WASHED OUT WITH FRESH WATER INTO A WASH-OUT PIT. THE FREE WATER GENERATED BY THIS PROCESS IS APPROXIMATELY FORTY BARRELS A DAY. APPROXIMATELY ONE YARD PER DAY OF SOLID MATERIAL (MOSTLY FRAC SAND) IS GENERATED FROM THIS PROCESS.

3. MOTOR OIL & LUBRICATION WASTES: ENGINE OILS WHICH ARE DRAINED DURING VEHICLE MAINTENANCE PROGRAMS GENERATE APPROXIMATELY 220 GALLONS PER MONTH.

4. USED OIL FILTERS: OIL FILTERS ARE DRAINED FOR 24 HOURS INTO THE WASTE MOTOR OIL TANK. APPROXIMATELY TWENTY-FIVE FILTERS PER MONTH ARE GENERATED.

5. USED SOLVENT FILTERS: A SOLVENT TYPE PARTS CLEANER IS USED IN THE MAINTENANCE SHOP. THE SOLVENT IS FILTERED AND RECYCLED THROUGH THE MACHINE. THE FILTERS ARE CHANGED ABOUT FOUR TIMES A YEAR.

**VIII. DESCRIPTION OF LIQUID AND SOLID WASTE COLLECTION & DISPOSAL**

1. VACUUM TRAILERS AND FRAC TANK WASTES: THE FREE WATER, BS&W, AND SAND SOLIDS FROM THESE SOURCES ARE COLLECTED INTO A CONCRETE PIT. THIS PIT HAS A DOUBLE LINED POLYETHYLENE GEOMEMBRANE WITH A LEAK DETECTION SYSTEM UNDER IT. THE LIQUIDS ARE SIPHONED OFF THE TOP OF THE PIT AND TRANSPORTED TO ROWLAND TRUCKING CO., INC. BONES SPRINGS SWD FOR DISPOSAL. THE SOLIDS ARE LOADED INTO DUMP TRUCKS AND HAULED TO CONTROL RECOVERY, INC., A NEW MEXICO LICENSED SOLID WASTE DISPOSAL FACILITY. THIS SOLID WASTE DISPOSAL IS PERMITTED ON NMOCD FORM C-117. (SEE EXHIBIT IV)

2. MOTOR OIL & LUBRICATION WASTES: THIS WASTE OIL IS STORED IN A 1000 GALLON TANK , MARKED "USED MOTOR OIL ONLY". THIS OIL IS PERIODICALLY PICKED UP BY INDUSTRIAL SERVICE CORPORATION. A HAZARDOUS WASTE MANIFEST IS ISSUED TO ROWLAND TRUCKING CO., INC. PRIOR TO REMOVAL.

3. USED OIL FILTERS: AFTER A "USED OIL FILTERS ONLY" DRUM IS FILLED, IT IS TRANSPORTED TO ROWLAND TRUCKING RIG-UP SHOP, WHERE THE FILTERS ARE CRUSHED AND EVENTUALLY PICKED UP BY INDUSTRIAL SERVICE CORPORATION, A PERMITTED HAZARDOUS WASTE FACILITY.

4. USED SOLVENT FILTERS: THESE FILTERS ARE ALSO SHIPPED TO ROWLAND RIG-UP SHOP AND CRUSHED AND DISPOSED IN A LIKE MANNER OF THE OIL FILTERS.

#### **IX. PROPOSED MODIFICATIONS**

ROWLAND TRUCKING CO., INC. PROPOSES TO CONSTRUCT AN ADDITIONAL CLEAN-OUT PIT ADJACENT TO THE EXISTING PIT. (SEE EXHIBIT II FOR LOCATION) THE PROPOSED PIT WILL BE 30' WIDE, 71' LONG AND SLOPE 7' FRONT TO BACK. IT WILL HAVE A DOUBLE LINED POLYETHYLENE GEOMEMBRANE WITH A LEAK DETECTION SYSTEM UNDER IT. (SEE EXHIBIT V ) IT WILL HAVE A 50' x 71' CONCRETE SLAB TO DRAIN AND DRY SOLIDS. THIS DRYING SLAB WILL ALSO HAVE A GEOMEMBRANE UNDER IT WHICH WILL BE TIED BACK TO THE CLEAN-OUT PIT. THIS NEW PIT WILL ALLOW ROWLAND TRUCKING TO DEAL WITH A LARGER VOLUME BEFORE HAVING TO DISPOSE. IT WILL ALSO BE MORE SAFE TO TRANSPORT DRIED SOLIDS RATHER THAN LIQUID.

#### **X. ROUTINE INSPECTION AND MAINTENANCE PLAN**

VISUAL CHECKS ARE MADE DAILY BY DRIVERS AND SUPERVISORY PERSONNEL. A FACILITY SAFETY/ENVIRONMENTAL INSPECTION IS MADE ON A MONTHLY BASIS AND KEPT ON FILE. (SEE EXHIBIT VI )

#### **XI. CONTINGENCY PLAN FOR REPORTING AND CLEAN-UP OF SPILLS OR RELEASES**

1. SPILL REPORTING FORM (SEE EXHIBIT VII )
2. LOCAL RESPONSE PERSONNEL AND EMERGENCY PHONE NUMBERS (SEE EXHIBIT VIII )

#### **XII. GEOLOGICAL/HYDROLOGICAL EVIDENCE**

1. NO BODIES OF WATER, STREAMS, OR CANALS ARE LOCATED WITHIN A ONE MILE RADIUS OF THIS FACILITY. THERE ARE FOUR DOMESTIC WATER WELLS IN SEC.26, TWP.21, RGE. 27 THAT RANGE IN DEPTH FROM 58 FEET TO 80 FEET.

*TDS ≈ 1,500 mg/l*

(DISCHARGE PLAN--PAGE 4)

2. TOTAL DEPTH TO THE GROUND WATER IS APPROXIMATELY 50 FEET. THIS WATER IS USED PRIMARILY FOR DOMESTIC AND MINING USE.

3. SOIL TYPE:

0' TO 4'--CAP ROCK

4' TO 38'--CALICHE

38' TO 50'--YELLOW CONGLOMERATE

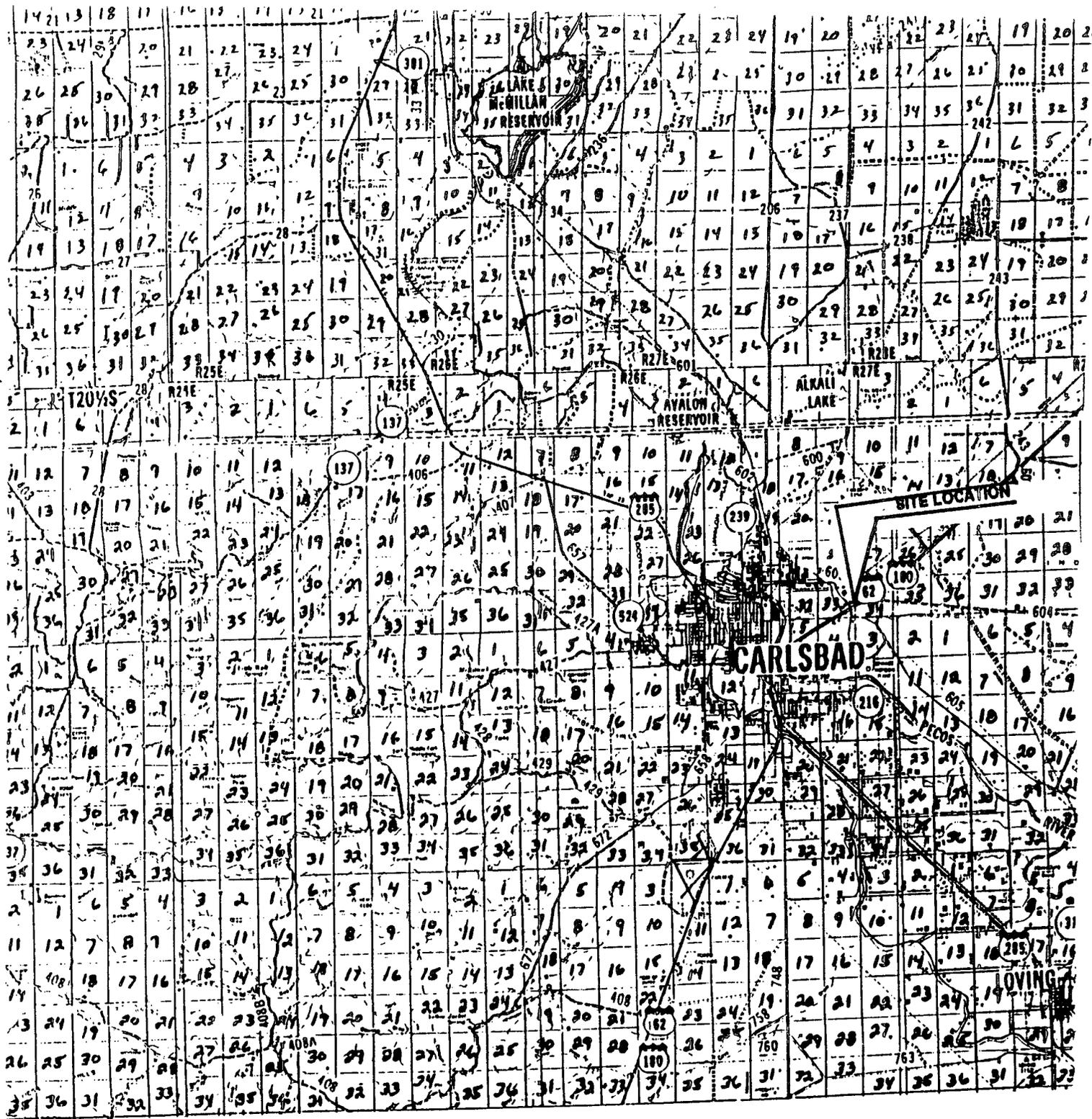
50' TO 120'--WHITE LIME

120' TO 130'--YELLOW LIME

**XIII OTHER INFORMATION THAT DEMONSTRATES COMPLIANCE**

1. ALL HYDROCARBON TRANSPORTATION SUCH AS TANK CLEANINGS ARE PERMITTED ON OCD FORM C-117.

2. PROPOSED EXPANSION OF CLEAN-OUT PIT IN ORDER TO SEPARATE LIQUIDS AND SOLIDS MORE EFFICIENTLY.



# SITE LOCATION MAP

**CARLSBAD TERMINAL**  
1609 EAST GREEN

LOT 4 IN PARTS OF  
SEC. 33&34, T21S, R27E.



EXHIBIT II

Fence

M.

A.

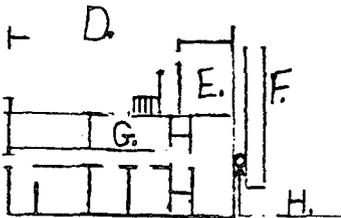


C.

U.S. 62-180

DIRT UNBANKMENT

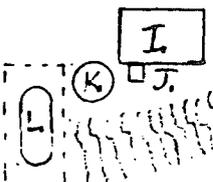
N.



- A. Fresh Water
- B. Wash Bay
- C. Service Bay
- D. Maintenance Bay
- E. Shop Supplies
- F. Tire Storage - Air Comp.
- G. Offices
- H. Used Motor Oil
- I. Fuel Island
- J. Diesel Pump
- K. Diesel Tank
- L. Propane Tank
- M. Chemical Storage Island
- N. Brine & KCL Storage
- O. Clean Out Pit
- P. Pump House
- Q. Fresh Water Tank
- R. Pit Water Storage

ACCESS ROAD

HIGH LOW



ROWLAND TRUCKING CO., INC.  
 CARLSBAD TERMINAL  
 PARTS OF SEC. 33 & 34 TOWNSHIP 27 S RANGE 27 E  
 NOT TO SCALE  
 11-25-96  
 R.G.F.

Proposed Clean-Out Pit



R.

R.

**ROWLAND TRUCKING CO. INC.**  
**CARLSBAD TERMINAL**

**MATERIAL STORAGE DESCRIPTION**

<b>PRODUCT NAME</b>	<b>MAXIMUM AMT. GALLONS</b>	<b>AVERAGE AMT. GALLONS</b>	<b>DAYS ON SITE</b>	<b>CONTAINER TYPE</b>	<b>LOCATION ID BY MAP</b>
CHEVRON MOTOR OIL	250	125	365	STEEL	C
DIESEL MOTOR FUEL	11,300	3000	365	STEEL	K
PROPANE	2000	1000	365	STEEL	L
USED MOTOR OIL	1150	250	365	STEEL	H
USED OIL FILTERS	110	50	365	STEEL	D
<b>UNICHEM PRODUCTS</b>					
TH-370	400	100	365	FIBERGLASS	M
TC-420	400	100	365	FIBERGLASS	M
TS-255	400	100	365	FIBERGLASS	M
TH-377	400	100	365	FIBERGLASS	M
ANTIFREEZE II	400	100	365	FIBERGLASS	M
<b>AGRI-EMPRESA PRODUCTS</b>					
KCL (POWDERED)	35000 LBS.	20000 LBS.	365	BAGS/BULK	A
<b>ZEP PRODUCTS</b>					
DYNA-143	40	30	365	STEEL	C
<b>ECCO PRODUCTS</b>					
BROWN TRUCK WASH	40 LBS	20 LBS	365	CARDBOARD	C
<b>BAKER CHEMICAL PRODUCTS</b>					
EB-8100	100	50	365	FIBERGLASS	M
PT-2072	100	25	365	FIBERGLASS	M
<b>TRUCK &amp; FRAC TANK WASTE</b>					
PIT WATER	400 BBL.	25 BBL.	365	STEEL	R
SOLIDS	12 CU. YDS.	5 CU. YDS.	365	CONCRETE PIT	O

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-07  
DISTRICT III  
1000 Rio Brazos Rd, Artesia, NM 87410

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Revised 4-1-91  
PERMIT NO. A-9928

TANK CLEANING, SEDIMENT OIL REMOVAL, TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS AND DISPOSAL PERMIT

Operator or Owner Reynolds Trucking Address PO Box 127 Carlisle, NM 88526  
Lease or Facility Name CARLISLE YARD Location \_\_\_\_\_  
U.L. - Sec. - Twp. - Rge. \_\_\_\_\_

OPERATION TO BE PERFORMED:

Tank Cleaning  Sediment Oil Removal  Transportation of Miscellaneous Hydrocarbons

DEC 20 '96

Operator or Owner Representative authorizing work H. T. L.

Date Work to be Performed 12-18-96 Available Office \_\_\_\_\_

TANK CLEANING DATA Tank Number \_\_\_\_\_ Volume \_\_\_\_\_

Tank Type \_\_\_\_\_ Volume Below Lead Line \_\_\_\_\_

SEDIMENT OIL OR MISCELLANEOUS HYDROCARBON DATA

Sediment Oil from:  Pit  Cellar  Other \_\_\_\_\_

MISCELLANEOUS OIL

Tank Bottoms from:  Pipeline Station  Crude Terminal  Refinery  Other\* \_\_\_\_\_

Catchings from:  Gasoline Plant  Gathering Lines  Salt Water Disposal System  Other\* \_\_\_\_\_

Pipeline Break Oil or Spill

\*Other (Explain) Reynolds yard P.O. CARLISLE, NM

VOLUME AND DESTINATION:

Estimated Volume 7 YARDS Bbls. Field use volume of good oil \_\_\_\_\_ Bbls.  
(Must include price to Division approved)

Destination (Name and Location of treating plant or other facility) \_\_\_\_\_

DESTRUCTION OF SEDIMENT OIL BY:

Burning  Pit Disposal  Use on Roads or firewalls  Other \_\_\_\_\_

(Explain) \_\_\_\_\_

Location of Destruction URI

Justification of Destruction \_\_\_\_\_

CERTIFICATION: (APPLICATION MAY BE MADE BY EITHER OF THE FOLLOWING)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Owner \_\_\_\_\_

Transporter NOT RECORDED

By \_\_\_\_\_

Address \_\_\_\_\_

Title \_\_\_\_\_

Signature Reynolds

Date \_\_\_\_\_

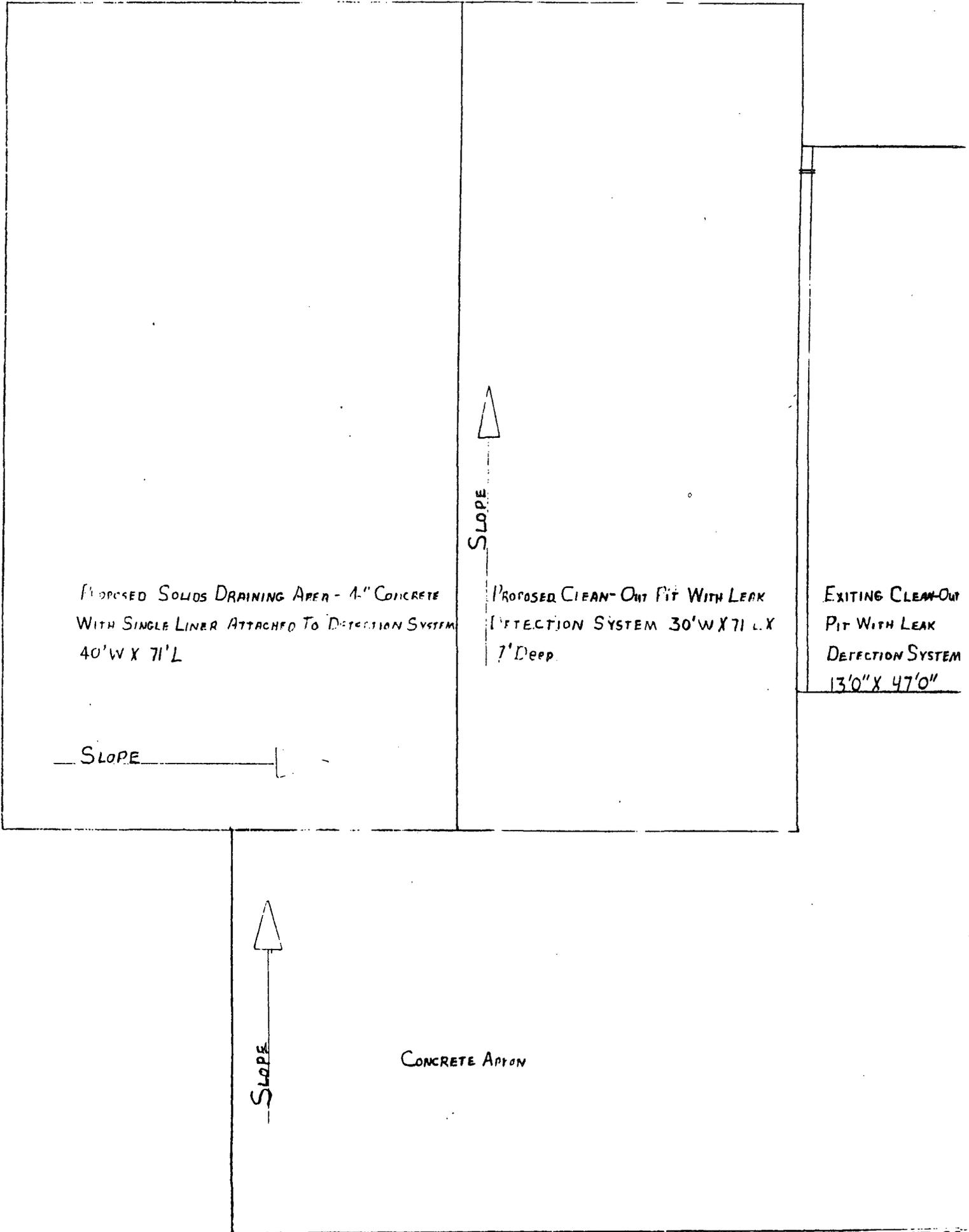
Title DISPATCH Date 12-18-96

OIL CONSERVATION DIVISION

Approved By ORIGINAL SIGNED BY BETTY ROLLINS Title \_\_\_\_\_ Date DEC 31 1996

A COPY OF THIS FORM MUST BE ON LOCATION DURING TANK CLEANING, REMOVAL OF SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS, AND MUST BE PRESENTED WITH TANK BOTTOMS, SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS AT THE TREATING PLANT TO WHICH IT IS DELIVERED.

DISTRIBUTION BY OCS	
_____	Scene Po
_____	File
_____	Operator
_____	Transporter (R)



PROPOSED SOLIDS DRAINING AREA - 4" CONCRETE  
WITH SINGLE LINER ATTACHED TO DETECTION SYSTEM  
40'W X 71'L

SLOPE

SLOPE

PROPOSED CLEAN-OUT PIT WITH LEAK  
DETECTION SYSTEM 30'W X 71'L X  
7' DEEP

EXITING CLEAN-OUT  
PIT WITH LEAK  
DETECTION SYSTEM  
13'0" X 47'0"

SLOPE

CONCRETE APRON

FACILITY SAFETY/ ENVIRONMENTAL INSPECTION CHECKLIST					
MONTH					
LOCATION					
INSPECTOR					
PERSON ACCOMPANYING INSP.					
		DATE	DATE	DATE	DATE
ITEM	COMMENTS				
Fire extinguishers	Inspected monthly, charged and in place				
First Aid Kits	Maintain contents, & eye wash solution				
Eye Washes	Sterile, current date				
MSDS	All chemicals, accessible, including reaq.				
Signs	Appropriate and legible				
Security	Locks, lights, etc.				
Bulk Tanks	No leaks, trucks using bonding cables				
a. Dikes	No standing water, intact, sump empty				
b. Hazcom labels	Appropriate, legible				
c. Valves & Plugs	Closed, no leaks				
d. Spill buckets	Carried on truck & under valves if inside				
Drums					
a. Dikes	No standing water, no leaks				
b. Empties	Horizontal, no holes, bunged, chocked				
c. Concrete	Not on dirt				
d. Labels	Hazcom, DOT, appropriate and legible				
Spill Kits	Available and full of pigs, tyvek, labels				
Salvage drum	Available, labeled				
Hazardous waste storage	Properly labeled, log sheet, location, leaks				
Monthly hazardous waste rep	Reports monthly				
Personal protective equip.	Available and being used				
Housekeeping	Neat, no trash, no chemicals,				
Eye wash and shower	Eye wash in all locations, and operable				
Trucks	Inspected daily, in good repair,				
Sewers/Drains/Sinks	No chemicals down sewer, sign on sink				
Electrical	GFCI 6' of sinks, grounded plugs, to code				
SCBA	Inspected monthly, charged and clean				
Forklifts	Condition, backup alarm				
DOT	Trucks placarded, driver files OK				
SARA records	LEPC notified of chemical stored				
Safety meetings	Held monthly, documented				
H2S Monitors	Monthly calibration, and recorded				
Containers (all sizes)	Tops on and labeled				
Field Samples	No accumulation, proper disposal				
Facility inspections	Being performed and documented				
Soil spots ( Are there any?)	Loading area, yard, warehouse				
Inventory	Not over 6 mo.				
Place a checkmark in the column if the inspected item is OK.					
Place an X in the column if the inspected item is unacceptable.					
Correct it if you can. Report it to your supervisor if you cannot.					
COMMENTS (Use back if necessary)					

SPILL REPORT FORM

DIRECTIONS ON REVERSE SIDE

No.:

Substance Trade Name: \_\_\_\_\_

Date Spill Occurred/Discovered: \_\_\_\_\_ Time: \_\_\_\_\_ Time to cleanup: \_\_\_\_\_

Location (Be Specific): \_\_\_\_\_

Location Address: \_\_\_\_\_ County: \_\_\_\_\_ St: \_\_\_\_\_

Size/Type of Container: \_\_\_\_\_ Physical State: \_\_\_\_\_

Volume or Weight of Spill: \_\_\_\_\_ Qty. Material Collected: \_\_\_\_\_

Describe all persons and events leading to the spill: \_\_\_\_\_

Describe methods, tools, equipment, and materials used in containment & cleanup: \_\_\_\_\_

List of all persons participating in cleanup and containment: \_\_\_\_\_

Reported by: \_\_\_\_\_ Reported to: \_\_\_\_\_

Date Reported: \_\_\_\_\_ Time Reported: \_\_\_\_\_

FOR OFFICE USE ONLY

Constitutients	Percent	RQ Value

Lab Tests by: \_\_\_\_\_ pH: \_\_\_\_\_ Flash Point: \_\_\_\_\_

Disposal Procedures: \_\_\_\_\_

ADDITIONAL REPORTS

Agency Name(s): \_\_\_\_\_ Phone #: \_\_\_\_\_

Individuals Contacted: \_\_\_\_\_ Ext. Report#: \_\_\_\_\_

Reported By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Comments: \_\_\_\_\_

Dollars assigned to spill: \_\_\_\_\_

REPORT FORM 1091B

**ROWLAND TRUCKING CO., INC.**  
**CARLSBAD TERMINAL**

**EMERGENCY TELEPHONE NUMBERS**

24 HOURS A DAY TELEPHONE NUMBER  
(505) 885-2053

**ALL EMERGENCIES--911**

EMERGENCY CONTACT PERSONNEL  
ROWLAND TRUCKING

<b>NAME</b>	<b>TITLE</b>	<b>PHONE NUMBER</b>
PETE M. TURNER	MANAGER	392-5005
JOHN (HUTCH) HUTCHESON	ASST. MANAGER	885-1095
GARY MICHAEL	SUPERVISOR	885-0230
MARK PERRY	SUPERVISOR	887-4932
C.W. WILLIAMS	SUPERVISOR	885-4842
JAMES PARKER	SUPERVISOR	885-8755
GENE BUTLER	SAFETY DIRECTOR	392-4721
	<b>MEDICAL FACILITY</b>	
COLUMBIA MEDICAL CENTER		887-4100
	<b>LAW ENFORCEMENT AGENCIES</b>	
CARLSBAD POLICE		885-2111
STATE POLICE		885-3137
SHERIFF DEPARTMENT		887-7551
	<b>FIRE DEPARTMENT AND AMBULANCE</b>	
FIRE DEPARTMENT		885-2111
AMBULANCE		885-2111
	<b>NEW MEXICO C.C.P.</b>	
ARTESIA OFFICE		748-1283

**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 application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**(GW-278) - Rowland Trucking Company, Inc., Pete M. Turner, (505) 885-2053, 1609 East Green, Carlsbad, New Mexico 88220, has submitted a discharge application for the Carlsbad Terminal located in Section 33 and 34, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico. All wastes generated will be stored in closed top receptacles prior to offsite disposal or recycling at an OCD approved site. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 1,500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.**

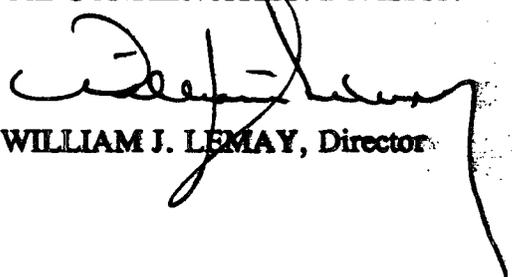
Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan applications, 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 a public hearing may be requested by any interested person. Requests for a 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.

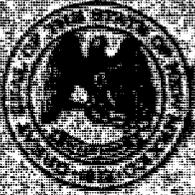
If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on the information in the discharge plan application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 19th day of March 1997.

SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
WILLIAM J. LEMAY, Director



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. ALBUQUERQUE  
SANTA FE, NEW MEXICO 87505  
PHONE 927-3131

June 10, 1997

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-288-758-931**

Mr. Pete Turner  
Rowland Trucking Company, Inc.  
P.O. Box 340  
Hobbs, New Mexico 88240

RE: Discharge Plan GW-278  
Carlsbad Facility  
Eddy County, New Mexico

Dear Mr. Turner:

The ground water discharge plan GW-278, for the Rowland Trucking Company, Inc. (Rowland) Carlsbad Facility located in Sections 33 and 34, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico, is hereby approved under the conditions contained in the enclosed attachment. The discharge plan consists of the original discharge plan application dated March 10, 1997. Enclosed are two copies of the conditions of approval. Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 14 working days of receipt of this letter.

The discharge plan was submitted pursuant to Section 3103 of the New Mexico Water Quality Control Regulations (NMQCR) Regulations. It is approved pursuant to Section 3109.A. Please note Section 3109.F, which provide for possible future amendments or modifications of the plan. Please be advised that approval of this plan does not relieve Rowland of liability should operations result in pollution of surface waters, ground water, or the environment.

Please be advised that all exposed pits, including lined pits and open tanks (tanks exceeding 10 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Mr. Pete Turner  
June 10, 1997  
Page 2

Please note that Section 3104 of the regulations require "When a facility has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C, Rowland is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.G.4., this plan is for a period of five years. This approval will expire on June 10, 2002, and Rowland should submit an application in ample time before this date. Note that under Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan renewal.

The discharge plan application for the Rowland Trucking Company, Inc. Carlsbad Facility is subject to WOCC Regulation 3114. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of \$50 plus a flat fee of \$1,380 for oil field service companies. The OCD has not received the filing fee or the flat fee. The filing fee and the flat fee are due upon receipt of this approval. The flat fee may be paid in a single payment due on the date of the discharge plan approval or in five equal installments over the expected duration of the discharge plan. Installment payments shall be remitted yearly, with the first installment due on the date of the discharge plan approval.

Please make all checks payable to: NMED-Water Quality Management and addressed to the OCD Santa Fe Office.

On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



William E. Turner  
Director

WIL/mwa  
Attachment

cc: OCD Artesia Office

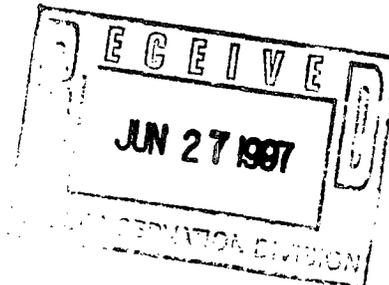
# ROWLAND TRUCKING COMPANY

PHONE  
(505) 397-4994

418 SOUTH GRIMES  
HOBBS, NEW MEXICO 88240

PHONE  
(505) 393-9023

June 25, 1997



State of New Mexico  
Energy, Minerals and Natural Resources Dept.  
Oil Conservation Division  
2040 S Pacheco  
Santa Fe, NM 87505

RE: Discharge Plan GW-278  
Carlsbad Facility (Rowland Trucking Co., Inc.)  
Eddy County, New Mexico

Dear Mr. LeMay,

Enclosed you will have a check payable to NMED Water Quality Management in the amount of \$1,430 to cover the \$50 filing fee and the \$1,380 for oil field service companies five year discharge plan.

Thank you for your assistance in preparing our approved plan.

Sincerely,

ROWLAND TRUCKING CO., INC.

  
Peter M. Turner  
Vice-president

PMT/lg

**ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH**

I hereby acknowledge receipt of check No. [REDACTED] dated 6/26/97  
 or cash received on \_\_\_\_\_ in the amount of \$ 1430.00  
 from Rowland Trucking  
 for Coalsbad GW-278

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Submitted to ASD by: R. C. Anderson Date: 7/31/97  
 Received in ASD by: \_\_\_\_\_ Date: \_\_\_\_\_

Filing Fee  New Facility  Renewal \_\_\_\_\_  
 Modification \_\_\_\_\_ Other \_\_\_\_\_

Organization Code 521.07 Applicable FY 98

To be deposited in the Water Quality Management Fund.

Full Payment  or Annual Increment \_\_\_\_\_

**ROWLAND TRUCKING CO., INC.**  
 P.O. BOX 340  
 HOBBS, NM 88241  
 (505) 397-0199

NORWEST BANK  
 NEW MEXICO, N.A. 0320  
 P.O. BOX 1290  
 HOBBS, NM  
 95-189/1122

CHECK NO.	CHECK DATE	VENDOR NO.
<span style="background-color: black; color: black;">[REDACTED]</span>	6/26/97	

AY \*\*\*\*\* ONE THOUSAND FOUR HUNDRED THIRTY & NO/100 \*\*\*\*\*

CHECK AMOUNT
***** \$1,430.00 *****

TO THE  
 ORDER OF NMED WATER QUALITY MANAGEMENT

R. C. Anderson  
 AUTHORIZED SIGNATURE

ATTACHMENT TO THE DISCHARGE PLAN GW-278  
ROWLAND TRUCKING COMPANY, INC.  
CARLSBAD FACILITY  
DISCHARGE PLAN APPROVAL CONDITIONS  
(June 10, 1997)

1. **Payment of Discharge Plan Fees:** The filing fee and the flat fee shall be submitted upon receipt of this approval. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.
2. **Rowland Commitments:** Rowland will abide by all commitments submitted in the discharge plan application dated March 10, 1997.
3. **Waste Disposal:** All wastes shall be disposed of at an NMOCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous by characteristics may be disposed of at an NMOCD approved facility upon proper waste characterization per 40 CFR Part 261.
4. **Drum Storage:** All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.
5. **Process Areas:** All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
6. **Above Ground Tanks:** All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
7. **Above Ground Saddle Tanks:** Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
8. **Labeling:** All tanks, drums and containers should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill, or ignite.
9. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade

tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing. Test results will be submitted to the OCD Santa Fe Division office within 30 days of testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter, or prior to discharge plan renewal. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing. Test results will be submitted to the OCD Santa Fe Division office within 30 days of testing.

11. Housekeeping: All systems designed for spill collection/prevention should be inspected to ensure proper operation and to prevent overtopping or system failure.

Any non-exempt contaminated soils that are collected at the facility will be tested for hazardous constituents, and after receiving OCD approval, will be disposed of at an OCD approved site.

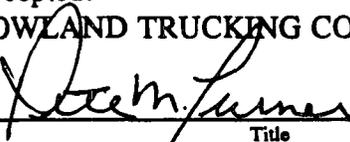
12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Artesia District Office.

13. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

14. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulation in effect at the time of closure.

15. Certification: Rowland, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Rowland further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:  
ROWLAND TRUCKING COMPANY, INC.

by  \_\_\_\_\_  
Title



**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

N. JONES

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

August 21, 1997

**CERTIFIED MAIL  
RETURN RECEIPT NO. 7-765-962-964**

Mr. Bob Patterson  
Rowland Trucking  
P.O. Box 99  
Eunice, New Mexico 88231

Re: **Inspection Report  
Carlsbad Facility  
Carlsbad, New Mexico**

Dear Mr. Patterson:

The New Mexico Oil Conservation Division (OCD) would like to thank you for your cooperation during the July 29, 1997 inspection of the Carlsbad facility located in Carlsbad, New Mexico. Comments from the inspection conducted are as follows:

1. **Drum Storage:** All drums that contain materials other than fresh water must be stored on an impermeable pad (i.e. concrete, asphalt, or other suitable containment) with curbing. All Empty drums should be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad with curbing.

Empty drums, and drums containing fluids were located within the facility that were not properly stored.

All drums should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill, or ignite.

2. **Process Area:** All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

The KCI mixing vat needs containment to prevent discharge to the ground surface.

The areas around the truck wash and the frac tank clean-out show evidence that leaks and spills are reaching the ground surface.

MAY 7 1998  
OCD

Mr. Bob Patterson

August 21, 1997

Page 2

3. **Above Ground Tanks:** All above ground tanks which contain fluids other than fresh water or alcohol must be bermed to contain a volume of one-third more than the total volume of the largest or all interconnected tanks. All new facilities or modifications to existing facilities must have the tanks placed on an impermeable pad so that leaks can be identified.

The above ground tanks holding frac tank clean-out wastes do not have proper berming.

The brine storage area does not have proper berming.

The used motor oil container does not have proper berming.

4. **Above Ground Saddle Tanks:** Above ground saddle tanks must have pad and curb type of containment below them unless they contain alcohol or fluids which are gases at normal atmospheric pressure and temperature. No berms are required for saddle tanks.

5. **Tank Labeling:** All tanks should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill, or ignite.

6. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation and must incorporate secondary containment and leak detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing and visual inspection of cleaned out tanks /or sumps.

The wastes collected in the below grade sump at the truck wash area are non-exempt and need to be tested for hazardous constituents and receive OCD approval prior to disposal at an OCD approved site. Please test the truck wash wastes and submit the results to the OCD by October 1, 1997.

Fluids are present in the leak detection system at the frac tank washout. The fluids need to be removed and the leak detection system monitored monthly for leaks in the washout. Frac tank washout fluids are exempt wastes and should be disposed of properly.

7. **Underground Process/Wastewater Lines:** All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter. Companies may propose various methods for testing such as pressure testing or other means acceptable to the OCD.

Mr. Bob Patterson

August 21, 1997

Page 3

8. **Housekeeping:** All systems designed for spill collection/prevention should be inspected frequently to ensure proper operation and to prevent overtopping or system failure.
9. **Spill Reporting:** All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the appropriate OCD District Office.

Once again, thank you for your time during our recent visit to your facility. If you have any questions, please call me at (505) 827-7155.

Sincerely,



Mark Ashley  
Geologist

xc: OCD Artesia Office

**ROWLAND TRUCKING CO., INC.**

**P.O. BOX 99**

**EUNICE, NM 88231**

**(505) 394-2581**

**JANUARY 21, 1998**

State of New Mexico  
Energy, Minerals, and Natural Resources Department  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, NM 87501

ATTN: Mr. Mark Ashley

SUBJECT: Approval of proposed clean out pit at the Carlsbad Terminal

Dear Mr. Ashley,

Enclosed is a drawing of the proposed clean out pit to be constructed at the Carlsbad Terminal. This pit was proposed in the discharge plan under Section IX. Proposed Modifications. Construction is scheduled to begin upon receiving written approval from your office. Please address any questions or comments to Bob Patterson at the above telephone number or box number.

Sincerely,



Bob Patterson,  
Rowland Trucking Co., Inc.



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

February 6, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-288-259-014**

Mr. Bob Patterson  
Rowland Trucking  
P.O. Box 99  
Eunice, New Mexico 88231

Re: Clean Out Pit Approval  
Carlsbad Facility  
Eddy, New Mexico

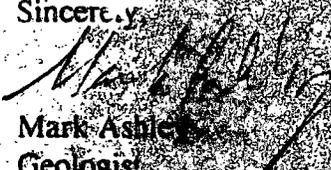
Dear Mr. Patterson:

The New Mexico Oil Conservation Division (OCD) has reviewed the Rowland Trucking Company, Inc. (Rowland) letter dated January 21, 1998. It contains the plans for the proposed clean out pit located at the Carlsbad facility in Carlsbad, New Mexico. The proposed clean out pit was included as a modification in discharge plan renewal that was approved by the OCD on the June 10, 1997. The OCD hereby approves of the proposed plans under the conditions contained in the discharge plan renewal (GW-278) dated June 10, 1997.

Please be advised that Rowland is not relieved of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please call me at (505) 827-7155.

Sincerely,

  
Mark Ashie  
Geologist

cc: OCD Artesia Office

**ATTACHMENT D**

# CONTROLLED RECOVERY INC.

P. O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: Rowland

LEASE NAME: YARD: Carlsbad

TRUCKING COMPANY: Rowland

TIME: 11:30  AM  PM

DATE: 2-25-98

VEHICLE No.: Dump TR.

DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS
- TANK BOTTOMS
- EXEMPT FLUIDS
- COMPLETION FLUIDS
- GAS PLANT WASTE
- C-117 No.: \_\_\_\_\_
- CONTAMINATED SOIL
- OTHER MATERIAL
- Pit No.: 001

### DESCRIPTION

SAND & WATER with liner  
FROM WASH PIT.

VOLUME OF MATERIAL  BBLs.  YARD 3  GALLONS \_\_\_\_\_

WASH OUT  CALL OUT  AFTER HOURS  DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: Pat C.W. Williams (Carlsbad Yard) Bryan Paul  
(SIGNATURE)

CRI REPRESENTATIVE: [Signature]  
(SIGNATURE)

TANK NO.

OFFICE USE:

OIL LEVELS	FEET	INCHES	GROSS BBLs.	DEDUCTIONS
1ST GAUGE				NET BBLs.
2ND GAUGE				
MEASURE RECEIVED				
BS& W		%		
FREE WATER			BBLs.	

1-98-500-4pi-26501

No 026641

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

P.O. BOX 369 • HOBBS, NEW MEXICO 88241

(505) 393-1079

To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: \_\_\_\_\_

LEASE NAME: \_\_\_\_\_

*Rowland  
Culstad Yard*

TRUCKING COMPANY: \_\_\_\_\_

*Ram*

TIME: *200*

AM  PM

DATE: *2 25 98*

VEHICLE No.: \_\_\_\_\_

DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

DRILLING FLUIDS

TANK BOTTOMS

EXEMPT FLUIDS

COMPLETION FLUIDS

GAS PLANT WASTE

C-117 No.: \_\_\_\_\_

CONTAMINATED SOIL

OTHER MATERIAL

EPA No.: *000*

### DESCRIPTION

*Pit Sludge*

VOLUME OF MATERIAL

BBLS. \_\_\_\_\_

*5*

YARD

GALLONS \_\_\_\_\_

WASH OUT

CALL OUT

AFTER HOURS

DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: \_\_\_\_\_

(SIGNATURE)

*[Signature]*

*Supervisor*

CRI REPRESENTATIVE: \_\_\_\_\_

(SIGNATURE)

TANK NO. \_\_\_\_\_

OFFICE USE:

OIL LEVELS	FEET	INCHES	GROSS BBLS.	DEDUCTIONS
1ST GAUGE				NET BBLS.
2ND GAUGE				
MEASURE RECEIVED				
BS&W		%		
FREE WATER		BBLS.		

1-98-500-4pt-28501

Nº 026642

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

P. O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: Rowland

LEASE NAME: Carpenter Yard

TRUCKING COMPANY: Rowland TIME: 10:00 AM - PM

DATE: 1-26-98 VEHICLE No.: 89 DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS
- COMPLETION FLUIDS
- CONTAMINATED SOIL
- TANK BOTTOMS
- GAS PLANT WASTE
- OTHER MATERIAL
- EXEMPT FLUIDS
- C-117 No. \_\_\_\_\_
- Pit No.: OCD

### DESCRIPTION

Wash pit sludge

VOLUME OF MATERIAL  BBLs.  YARD 10  GALLONS \_\_\_\_\_

WASH OUT  CALL OUT  AFTER HOURS  DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: [Signature]  
(SIGNATURE)

CRI REPRESENTATIVE: [Signature]  
(SIGNATURE)

### TANK NO.

### OFFICE USE:

OIL LEVELS	FEET	INCHES	GROSS BBLs.	DEDUCTIONS
1ST GAUGE				NET BBLs.
2ND GAUGE				
MEASURE RECEIVED				
BS&W		%		
FREE WATER		BBLs.		

No 026452

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

P. O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: Rowland

LEASE NAME: Carl's band yard

TRUCKING COMPANY: Rowland TIME: 1:15 AM  PM

DATE: 1-26-98 VEHICLE No.: \_\_\_\_\_ DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS                       TANK BOTTOMS                       EXEMPT FLUIDS
- COMPLETION FLUIDS                       GAS PLANT WASTE                       C-117 No.: \_\_\_\_\_
- CONTAMINATED SOIL                       OTHER MATERIAL                       Pit No.: \_\_\_\_\_

### DESCRIPTION

Swamp wastes

VOLUME OF MATERIAL     BBLs. 10     YARD     GALLONS

WASH OUT                       CALL OUT                       AFTER HOURS                       DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: [Signature]  
(SIGNATURE)

CRI REPRESENTATIVE: [Signature]  
(SIGNATURE)

TANK NO.

OFFICE USE:

OIL LEVELS	FEET	INCHES	GROSS BBLs.	DEDUCTIONS
1ST GAUGE				NET BBLs.
2ND GAUGE				
MEASURE RECEIVED				
BS&W		%		
FREE WATER		BBLs.		

N<sup>o</sup> 026461

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

P. O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: Rowland

LEASE NAME: Carlsbad Yard

TRUCKING COMPANY: Rowland TIME: 1100  AM  PM

DATE: 11 22 97 VEHICLE No.: 89 DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS
- TANK BOTTOMS
- EXEMPT FLUIDS
- COMPLETION FLUIDS
- GAS PLANT WASTE
- C-117 No.: \_\_\_\_\_
- CONTAMINATED SOIL
- OTHER MATERIAL
- Pit No.: 000

### DESCRIPTION

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

VOLUME OF MATERIAL  BBLs.  YARD 10  GALLONS \_\_\_\_\_

WASH OUT  CALL OUT  AFTER HOURS  DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: Jerry [Signature]  
(SIGNATURE)

CRI REPRESENTATIVE: \_\_\_\_\_  
(SIGNATURE)

TANK NO. \_\_\_\_\_

OFFICE USE:

OIL LEVELS	FEET	INCHES	GROSS BBLs.	DEDUCTIONS
1ST GAUGE				NET BBLs.
2ND GAUGE				
MEASURE RECEIVED				
BS&W		%		
FREE WATER		BBLs.		

Nº 026105

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

P. O. BOX 369 • HOBBS, NEW MEXICO 88241

(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: \_\_\_\_\_

LEASE NAME: \_\_\_\_\_

TRUCKING COMPANY: \_\_\_\_\_

TIME: \_\_\_\_\_

AM  PM

DATE: 11 22 97

VEHICLE No.: \_\_\_\_\_

89

DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

DRILLING FLUIDS

TANK BOTTOMS

EXEMPT FLUIDS

COMPLETION FLUIDS

GAS PLANT WASTE

C-117 No.: \_\_\_\_\_

CONTAMINATED SOIL

OTHER MATERIAL

No.: 000

### DESCRIPTION

VOLUME OF MATERIAL

BBLs. \_\_\_\_\_

YARD \_\_\_\_\_

10

GALLONS \_\_\_\_\_

WASH OUT

CALL OUT

AFTER HOURS

DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: \_\_\_\_\_

(SIGNATURE)

CRI REPRESENTATIVE: \_\_\_\_\_

(SIGNATURE)

TANK NO. \_\_\_\_\_

OFFICE USE:

OIL LEVELS	FEET	INCHES	GROSS BBLs.	DEDUCTIONS
1ST GAUGE				NET BBLs.
2ND GAUGE				
MEASURE RECEIVED				
BS&W				
FREE WATER		BBLs.		

No **026106**

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

P.O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: Rowland

LEASE NAME: Carrsbad Yard

TRUCKING COMPANY: Rowland TIME: 11:50 AM/PM

DATE: 10-21-97 VEHICLE No.: \_\_\_\_\_ DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS
- TANK BOTTOMS
- EXEMPT FLUIDS
- COMPLETION FLUIDS
- GAS PLANT WASTE
- C-117 No.: \_\_\_\_\_
- CONTAMINATED SOIL
- OTHER MATERIAL
- Pit No.: \_\_\_\_\_

Sump sludge DESCRIPTION

VOLUME OF MATERIAL 8 BBLs. 8 YARD :  GALLONS

WASH OUT  CALL OUT  AFTER HOURS  DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: [Signature]  
(SIGNATURE)

CRI REPRESENTATIVE: [Signature]  
(SIGNATURE)

TANK NO.				OFFICE USE:	
OIL LEVELS	FEET	INCHES	GROSS BBLs	DEDUCTIONS	
1ST GAUGE				NET BBLs	
2ND GAUGE					
MEASURE RECEIVED					
BS & W		%			
FREE WATER		BBLs			

25879

# CONTROLLED RECOVERY INC.

P.O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: Rowland Co

LEASE NAME: Carlsbad yard

TRUCKING COMPANY: Rowland TIME: 4:10 AM/PM

DATE: 10-21-97 VEHICLE No.: \_\_\_\_\_ DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS
- TANK BOTTOMS
- EXEMPT FLUIDS
- COMPLETION FLUIDS
- GAS PLANT WASTE
- C-117 No.: \_\_\_\_\_
- CONTAMINATED SOIL
- OTHER MATERIAL
- Pit No.: \_\_\_\_\_

### DESCRIPTION

Sump sludge

VOLUME OF MATERIAL  BBLs. YARD 10  GALLONS

WASH OUT  CALL OUT  AFTER HOURS  DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations, exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: [Signature]  
(SIGNATURE)

CRI REPRESENTATIVE: [Signature]  
(SIGNATURE)

TANK NO.				OFFICE USE:	
OIL LEVELS	FEET	INCHES	GROSS BBLs	DEDUCTIONS	
1ST GAUGE				NET BBLs	
2ND GAUGE					
MEASURE RECEIVED					
BS & W		%			
FREE WATER		BBLs			

25882

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

P.O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: \_\_\_\_\_

LEASE NAME: Rowland  
Crabtree Yard

TRUCKING COMPANY: Rowland TIME: 320 AM/PM

DATE: 91897 VEHICLE No.: 88 DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS
- TANK BOTTOMS
- EXEMPT FLUIDS
- COMPLETION FLUIDS
- GAS PLANT WASTE
- C-117 No. \_\_\_\_\_
- CONTAMINATED SOIL
- OTHER MATERIAL
- Det No.: 05A

### DESCRIPTION

Wash Pit Sludge

VOLUME OF MATERIAL  BBLS. 4 6 :  GALLONS

WASH OUT  CALLOUT  AFTER HOURS  DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: David Brewer  
(SIGNATURE)

CRI REPRESENTATIVE: \_\_\_\_\_  
(SIGNATURE)

TANK NO. \_\_\_\_\_ OFFICE USE: \_\_\_\_\_

OIL LEVELS	FEET	INCHES	GROSS BBLS	DEDUCTIONS
1ST GAUGE				NET BBLS
2ND GAUGE				
MEASURE RECEIVED				
BS & W		%		
FREE WATER			BBLS	

**NR 25654**

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

P.O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: Rowland

LEASE NAME: Calls bar yard

TRUCKING COMPANY: Rowland TIME: 12:45 AM/PM

DATE: 9-11-97 VEHICLE No.: 88 DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS
- TANK BOTTOMS
- EXEMPT FLUIDS
- COMPLETION FLUIDS
- GAS PLANT W/STE
- C-117 No.:
- CONTAMINATED SOIL
- OTHER MATERIAL
- PIT No.: OCP

### DESCRIPTION

Wash pit sludges

VOLUME OF MATERIAL  BBLS.  YARD 6  GALLONS

WASH OUT  CALL OUT  AFTER HOURS  DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: [Signature]  
(SIGNATURE)

CRI REPRESENTATIVE: [Signature]  
(SIGNATURE)

TANK NO. \_\_\_\_\_ OFFICE USE: \_\_\_\_\_

OIL LEVELS	FEET	INCHES	GROSS BBLS	DEDUCTIONS
1ST GAUGE				NET BBLS
2ND GAUGE				
MEASURE RECEIVED				
BS & W		%		
FREE WATER		BBLS		

42 25653

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

# CONTROLLED RECOVERY INC.

B.O. BOX 369 • HOBBS, NEW MEXICO 88241  
(505) 393-1079

Bill To: \_\_\_\_\_

Address: \_\_\_\_\_

COMPANY/GENERATOR: Rowland

LEASE NAME: Carlsbad yard

TRUCKING COMPANY: Rowland TIME: 10:35  AMP

DATE: 9-18-97 VEHICLE No.: 88 DRIVER No.: \_\_\_\_\_

### TYPE OF MATERIAL

- DRILLING FLUIDS
- TANK BOTTOMS
- EXEMPT FLUIDS
- COMPLETION FLUIDS
- GAS PLANT WASTE
- C-11/ No.: \_\_\_\_\_
- CONTAMINATED SOIL
- OTHER MATERIAL
- Pit No.: \_\_\_\_\_

### DESCRIPTION

Wash pit sludges

VOLUME OF MATERIAL  BBLs. 6  YARD 6 :  GALLONS

WASH OUT       CALL OUT       AFTER HOURS       DEBRIS CHARGE

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: [Signature]  
(SIGNATURE)

CRI REPRESENTATIVE: [Signature]  
(SIGNATURE)

### TANK NO.

### OFFICE USE:

OIL LEVELS	FEET	INCHES	GROSS BBLs	DEDUCTIONS
1ST GAUGE				NET BBLs
2ND GAUGE				
MEASURE RECEIVED				
BS & W		%		
FREE WATER		BBLs		

25652

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

**ATTACHMENT E**

Rec'd  
4/29/98  
JP

Product Name: TECHNI-FOAM 593

Section: 01 PRODUCT IDENTIFICATION

UNICHEM INTERNATIONAL INC.	Emergency Telephone	505-393-7751
P.O. BOX 1499	Previous Version Date	6/16/86
707 N. LEECH	Date Prepared	11/11/93
HOBBS, NM 88241-1499	Version: 0000002	

Product Name: TECHNI-FOAM 593

Trade Name: Defoamer

Chemical Description:  
Proprietary blend of alcohols and silicones.

Section: 02 HAZARDOUS INGREDIENTS

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
2-ethyl hexanol	000104-76-7	< 95%
petroleum distillate	068476-34-6	< 10%

Section: 03 PHYSICAL DATA

Freezing Point: - 32 Deg.F.  
 Specific Gravity(H2O=1) : 0.840 Solubility in water: Insoluble  
 Appearance and Odor: Clear, amber liquid; hydrocarbon odor.

Section: 04 FIRE AND EXPLOSION HAZARD DATA

Flash Point (Test Method): 178 Deg.F TCC

Extinguishing Media

CO2, dry chemical, water spray or fog, or foam. Use water to keep containers cool. Isolate "fuel" supply from fire. Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Do not enter confined fire space without proper personal protective equipment including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.

Unusual Fire and Explosion Hazards

This material is combustible and under certain conditions may release vapors that pose a severe fire hazard. These vapors may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static

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Section: 04 FIRE AND EXPLOSION HAZARD DATA    CONTINUED

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discharge, or other ignition sources at locations distant from material handling point. Containers may explode from internal pressure if confined to a fire. Keep unnecessary people away.

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Section: 05 HEALTH HAZARD DATA

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Effects of Overexposure

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Eye Contact: can cause severe irritation. Can cause permanent injury if not promptly treated.

Skin Contact: can cause moderate irritation. Prolonged or repeated contact can result defatting and drying the skin which may result in dermatitis. Can cause allergic skin reaction. Liquid is moderately toxic and may cause central nervous system depression if absorbed through the skin.

Inhalation: may cause irritation of the nose, throat and respiratory tract. High vapor concentration may cause central nervous system depression evidenced by giddiness, headache, dizziness and nausea. In extreme cases, unconsciousness and death may occur.

Ingestion: can cause gastrointestinal distress, headache, nausea, vomiting, central nervous system depression and unconsciousness. If this material is aspirated during ingestion or during vomiting, can cause chemical pneumonia, lung damage and death.

Medical Conditions Aggravated by Exposure: preexisting eye, skin and respiratory disorders may be aggravated by exposure.

Other Information: 2-ethylhexanol has been reported to be teratogenic (to cause birth defects in laboratory rats when administered orally to pregnant Wistar rats. Subsequent studies have shown not to cause birth defects in rats when administered by inhalation or dermally. It is believed that occupational exposure by inhalation or dermal route poses no significant threat to the embryo/fetus. Selected for NTP carcinogenesis studies, April 1990

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Emergency and First Aid Procedures

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SKIN

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Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

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Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

Product Name:      TECHNI-FOAM 593

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Section: 05 HEALTH HAZARD DATA

CONTINUED  
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INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

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Section: 06 REACTIVITY DATA

Stable (Y=Yes/N=No): Y

Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents, strong alkalies, and strong mineral acids.

Hazardous Decomposition Products

Smoke, carbon dioxide, carbon monoxide, oxides of nitrogen.

Hazardous Polymerization May Occur (Y=Yes/N=No): N

Hazardous Polymerization -- Conditions to Avoid

None

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Section: 07 SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled

Eliminate sources of ignition. Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled materials with sand or earth. Recover undamaged and minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S.EPA and/or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of

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Section: 07 SPILL OR LEAK PROCEDURES

CONTINUED  
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the Resource Conservation and Recovery Act (40 CFR 260-271).

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Section: 08 SPECIAL PROTECTIVE INFORMATION  
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Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure organic vapor type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation

The use of mechanical dilution ventilation is recommended whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

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Section: 09 SPECIAL PRECAUTIONS  
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Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

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. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with

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Section: 09 SPECIAL PRECAUTIONS

CONTINUED

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adequate ventilation. Wash thoroughly after handling.  
Containers should be grounded and bonded to receiving  
container(s) when being emptied. Containers should not be  
washed out and used for other purposes.  
FOR INDUSTRIAL USE ONLY

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Section: 10 REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act Of 1986(SARA) Title III

Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning  
Quantities (TPQs) and release reporting based on Reportable  
Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311  
and 312). These values are subject to change and the  
regulations should be consulted to verify current statutory  
requirements.

Components present in this product at a level which  
could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
**NONE**			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may  
require submission of reports (chemical list, MSDS, Tier I &  
Tier II) to the State Emergency Response Commission, Local  
Emergency Response Committee and the local fire department.  
The SARA physical and health hazards related to this product  
are:

<input checked="" type="checkbox"/> Acute Health Hazard	<input type="checkbox"/> Sudden Release of Pressure	<input checked="" type="checkbox"/> Fire
<input checked="" type="checkbox"/> Chronic Health Hazard	<input type="checkbox"/> Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject  
to the reporting requirements of Section 313 of the  
Emergency Planning and Community Right-to-Know Act of 1986  
(40 CFR 372). This information should be included in all  
MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
**NONE**		

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and  
Liability Act of 1980 (CERCLA) requires notification of the  
National Response Center 1-800-424-8802 of any release of a  
Hazardous Substances equal to or greater than the reportable  
quantities (RQs) listed in 40CFR 302.4. Values are given in  
pounds for the component and not the mixture, if applicable.



Product Name:      TECHNI-HIB 370

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Section: 01 PRODUCT IDENTIFICATION  
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UNICHEM INTERNATIONAL INC.	Emergency Telephone	505-393-7751
P.O. BOX 1499	Previous Version Date	9/07/93
707 N. LEECH	Date Prepared	9/21/93
HOBBS, NM 88241-1499	Version: 0000004	

Product Name: TECHNI-HIB 370

Trade Name: Corrosion Inhibitor

Chemical Description:  
Proprietary blend of cationic compounds-----  
Section: 02 HAZARDOUS INGREDIENTS  
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<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
isopropyl alcohol	00067-63-0	< 25%
methanol	00067-56-1	< 5%

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Section: 03 PHYSICAL DATA  
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Freezing Point:      2 Deg.F.  
Boiling Point, 760 mm Hg: appx 190 Deg.F  
Specific Gravity(H2O=1) :      0.956              Solubility in water: Complete  
Appearance and Odor: Clear amber liquid; pungent odor.

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Section: 04 FIRE AND EXPLOSION HAZARD DATA  
-----Flash Point (Test Method):      98 Deg.F TCCExtinguishing Media

CO2, dry chemical, water spray or fog, or foam. Use water to keep containers cool. Isolate "fuel" supply from fire.  
Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Do not enter confined fire space without proper personal protective equipment including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.

Unusual Fire and Explosion Hazards

This material is volatile and readily gives off vapors that may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other

Product Name:     TECHNI-HIB 370

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**Section: 04 FIRE AND EXPLOSION HAZARD DATA**    CONTINUED

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ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Containers may explode from internal pressure if confined to fire. Keep containers cool. Keep unnecessary people away.

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**Section: 05 HEALTH HAZARD DATA**

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Effects of Overexposure

**Eye Contact:** the liquid is irritating to the eyes and produces intense stinging and burning. If not promptly removed, may cause eye damage.

**Skin Contact:** repeated or prolonged contact with the skin may cause irritation and dermatitis.

**Inhalation:** vapors may cause irritation of the eyes, nose, and throat. Prolonged exposures may cause nausea, headache, dizziness, unconsciousness, cardiac depression, optic complications and death.

**Ingestion:** can cause burning of the gastrointestinal tract, nausea, vomiting, bleeding, CNS depression, hemolysis, blindness and pulmonary damage. Can be fatal.

**Chronic Exposure:** For methanol, chronic poisoning from repeated exposure has been manifested by conjunctivitis, headache, giddiness, sleeplessness, gastric disturbances and failure of vision.

Emergency and First Aid ProceduresSKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

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**Section: 06 REACTIVITY DATA**

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Stable (Y=Yes/N=No):    Y

Product Name:      TECHNI-HIB 370

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Section: 06 REACTIVITY DATA

CONTINUED

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Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents, strong alkalies, and strong mineral acids.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce smoke, carbon monoxide and carbon dioxide.

Hazardous Polymerization May Occur (Y=Yes/N=No): N

Hazardous Polymerization -- Conditions to Avoid

None

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Section: 07 SPILL OR LEAK PROCEDURES

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Steps to be Taken if Material is Released or Spilled

Eliminate sources of ignition. Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled materials with sand or earth. Recover undamaged and minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S.EPA and/or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271).

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Section: 08 SPECIAL PROTECTIVE INFORMATION

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Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure organic vapor type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation

The use of mechanical dilution ventilation is recommended

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Section: 08 SPECIAL PROTECTIVE INFORMATION CONTINUED

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whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

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Section: 09 SPECIAL PRECAUTIONS

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Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

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. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.

FOR INDUSTRIAL USE ONLY

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Section: 10 REGULATORY INFORMATION

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Superfund Amendments and Reauthorization Act Of 1986(SARA) Title III

Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the

Section: 10 REGULATORY INFORMATION

CONTINUED

regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
**NONE**			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

<input checked="" type="checkbox"/> Acute Health Hazard	<input type="checkbox"/> Sudden Release of Pressure	<input checked="" type="checkbox"/> Fire
<input checked="" type="checkbox"/> Chronic Health Hazard	<input type="checkbox"/> Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
methanol	00067-56-1	< 5%

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

<u>Component Name</u>	<u>CAS #</u>	<u>CERCLA RQ</u>
methanol	00067-56-1	5000

OSHA Exposure Limits

<u>Component Name</u>	TWA ppm:	TWA MG/M3:	STEL ppm:	STEL MG/M3:	Other
isopropyl alcohol	400.0	980.0	500.0	1225.0	
methanol	200.0	260.0	250.0	325.0	Skin: X

National Fire Protection Agency

<u>2</u> Health	<u>3</u> Fire
<u>0</u> Reactive	Other

Product Name:      TECHNI-HIB 370

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Section: 10 REGULATORY INFORMATION

CONTINUED  
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Department of Transportation Shipping Information

Proper Shipping Name: Flammable liquids, n.o.s.

Hazard Class: 3

Identification: UN1993

Packaging Group: PG III

Contains: methanol, isopropyl alcohol

Hazardous Substance RQ: 100000#

Emergency Response Guide Number: 27

Labels: Flammable liquid

Toxic Substances Control Act (TSCA), 40 CFR 261

This product (or components if product is a mixture) is in compliance with TSCA.

--

Section 10 information is to remain attached to the material safety data sheet for this product.

--

While UNICHEM INTERNATIONAL believes that the above data is correct, UNICHEM INTERNATIONAL expressly disclaims liability for any loss or injury arising out of the use of this information or the use of any materials designated.

--

END OF MSDS

Product Name: **TECHNI-HIB 756**

**Section: 01 PRODUCT IDENTIFICATION**

UNICHEM	Emergency Telephone	505-393-7751
A DIVISION OF BJ SERVICES CO.	Previous Version Date	9/21/93
707 N. LEECH	Date Prepared	10/01/96
HOBBS, NM 88241-1499	Version: 0000003	

Product Name: **TECHNI-HIB 756**

Trade Name: **Scale Inhibitor**

Chemical Description:  
 Proprietary blend of organic phosphonates.

**Section: 02 HAZARDOUS INGREDIENTS**

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
hydrochloric acid	07647-01-0	< 2%
phosphoric acid	07664-38-2	< 1%

**Section: 03 PHYSICAL DATA**

Freezing Point: 2 Deg.F.  
 Specific Gravity(H2O=1) : 1.180 Solubility in water: Soluble  
 Appearance and Odor: Amber liquid; alcohol odor.

**Section: 04 FIRE AND EXPLOSION HAZARD DATA**

Flash Point (Test Method): WILL NOT FLASH

Extinguishing Media

Material is not combustible. Use extinguishing agent appropriate for surrounding fire. Keep containers cool. Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Fire fighters should wear self-contained breathing apparatus with a full facepiece operated in the pressure-demand or positive-pressure mode.

Unusual Fire and Explosion Hazards

None

**Section: 05 HEALTH HAZARD DATA**

Effects of Overexposure

Eye Contact: may irritate or burn the eyes. May damage the eyes if not promptly removed.  
 Skin Contact: may cause irritation upon brief contact. May

Product Name: TECHNI-HIB 756

Section: 05 HEALTH HAZARD DATA

CONTINUED

cause burns if not promptly removed.

Inhalation: mists or vapors may irritate mucuous membranes.

Ingestion: aspiration into the lungs may cause lung damage and may be fatal.

Routes of entry: eye and skin contact or inhalation.

Emergency and First Aid Procedures

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

Section: 06 REACTIVITY DATA

Stable (Y=Yes/N=No): Y

Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce smoke, carbon monoxide and carbon dioxide.

Hazardous Polymerization May Occur (Y=Yes/N=No): N

Hazardous Polymerization -- Conditions to Avoid

None

Section: 07 SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled



Product Name: TECHNI-HIB 756

## Section: 09 SPECIAL PRECAUTIONS

CONTINUED

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

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. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.

FOR INDUSTRIAL USE ONLY

## Section: 10 REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title IIISection 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
**NONE**			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

<input checked="" type="checkbox"/> Acute Health Hazard	<input type="checkbox"/> Sudden Release of Pressure	<input type="checkbox"/> Fire
<input checked="" type="checkbox"/> Chronic Health Hazard	<input type="checkbox"/> Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the

Product Name: TECHNIB 756

Section: 10 REGULATORY INFORMATION CONTINUED

Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
hydrochloric acid	07647-01-0	< 2%
phosphoric acid	07664-38-2	< 1%

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

<u>Component Name</u>	<u>CAS #</u>	<u>CERCLA RQ</u>
hydrochloric acid	07647-01-0	5000
phosphoric acid	07664-38-2	5000

OSHA Exposure LimitsComponent Name

hydrochloric acid

Ceiling ppm: 5.0 Ceiling MG/M3 7.0  
phosphoric acid

TWA MG/M3: 1.0 STEL MG/M3: 3.0

National Fire Protection Agency2 Health0 Fire0 ReactiveACID OtherDepartment of Transportation Shipping Information

Proper Shipping Name: Corrosive liquids, n.o.s.

Hazard Class: 8

Identification: UN1760

Packaging Group: PG II

Contains: phosphonic acid, hydrochloric acid

Hazardous Substance RQ: 250000# Emergency Response Guide Number: 154

Labels: Corrosive

Toxic Substances Control Act (TSCA), 40 CFR 261

This product, or components if product is a mixture, is/are listed on the Toxic Substances Control Act (TSCA) inventory.

Section 10 information is to remain attached to the material safety data sheet for this product.

While UNICHEM believes that the above data is correct, UNICHEM expressly disclaims liability for any loss or injury

Product Name:     TECHNI-HIB 756

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Section: 10 REGULATORY INFORMATION

CONTINUED  
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arising out of the use of this information or the use of any  
materials designated.

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END OF MSDS

Product Name: TECHNIB 756

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Section: 11 LABEL INFORMATION  
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DANGER! CAUSES SEVERE EYE AND SKIN BURNS  
MAY BE HARMFUL IF SWALLOWED OR INHALED  
---  
---

Do not get in eyes, on skin or on clothing.  
Avoid breathing vapors. Keep container closed.  
Use with adequate ventilation. Wash thoroughly after handling.

FIRST AID  
=====

IN CASE OF SWALLOWING:

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or a poison control center. Never give anything by mouth to an unconscious person.

IN CASE OF CONTACT:

Immediately flush eyes and skin with plenty of water for 15 minutes while removing contaminated clothing and shoes. Discard contaminated shoes. Launder clothing before reuse. Call a physician.

IN CASE OF INHALATION:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

CONTAINER HANDLING AND STORAGE:

Keep container tightly closed. Keep closure up to avoid leakage. Drum must not be washed out or used for other purposes. Replace closure after each withdrawal. Do not use pressure to empty drum. Do not transfer this material to improperly marked container. Keep out of reach of children.

IN CASE OF SPILLAGE:

Absorb spill with inert materials (e.g., dry sand or earth). Place in a chemical waste container. Flush spill area with water spray. For large spill, dike for later disposal.

CONTAINER DISPOSAL:

This container will contain traces of hazardous material when emptied. Do not cut or weld on empty container. Follow local, state and federal regulations for disposal.

Product Name:      TECHNI-SPERSE 251

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Section: 01 PRODUCT IDENTIFICATION  
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UNICHEM INTERNATIONAL INC.	Emergency Telephone	505-393-7751
P.O. BOX 1499	Previous Version Date	8/05/86
707 N. LEECH	Date Prepared	5/06/93
HOBBS	Version: 0000001	
NM	88241-1499	

Product Name: TECHNI-SPERSE 251

Trade Name: Paraffin Dispersant

## Chemical Description:

Proprietary blend of inhibitors and surfactants in water.  
-----Section: 02 HAZARDOUS INGREDIENTS  
-----

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
methanol	00067-56-1	< 20%
isopropyl alcohol	00067-63-0	< 15%
2-butoxyethanol	00111-76-2	< 5%
heavy aromatic naphtha	64741-68-0	< 5%
xylene	01330-20-7	< 5%

  
-----Section: 03 PHYSICAL DATA  
-----

Freezing Point: - 1 Deg.F.  
Specific Gravity(H2O=1) :      .960              Solubility in water: Soluble  
Appearance and Odor: Clear, amber liquid; pungent odor.

  
-----Section: 04 FIRE AND EXPLOSION HAZARD DATA  
-----Flash Point (Test Method):    98   Deg.F TCCExtinguishing Media

CO2, dry chemical, water spray or fog, or foam. Use water to keep container cool. Isolate "fuel" supply from fire. Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Do not enter confined fire space without proper personal protective equipment including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.

Unusual Fire and Explosion Hazards

This material is volatile and readily gives off vapors that may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters,

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Section: 04 FIRE AND EXPLOSION HAZARD DATA    CONTINUED

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smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Containers may explode from internal pressure if confined to fire. Keep containers cool. Keep unnecessary people away.

---

Section: 05 HEALTH HAZARD DATA

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Effects of Overexposure

**Eye Contact:** may cause moderate irritation, including burning sensation, tearing, redness, swelling and blurred vision. Can cause corneal injury if not promptly treated.

**Skin Contact:** may produce skin irritation, defatting and dermatitis. Frequent or widespread contact may result in the absorption of potentially harmful amounts, with possible injury to kidneys, liver, blood and/or bone marrow.

**Inhalation:** can cause nasal and respiratory irritation, coughing, shortness of breath, dizziness, drowsiness, intoxication, weakness, fatigue, headache, numbness, tremors, impaired memory, nausea, lack of appetite, vomiting, collapse, unconsciousness, optic complications, cardiac depression and coma. Moderate liver enlargement, kidney enlargement and even death is possible if exposure is not controlled.

**Ingestion:** can cause gastrointestinal irritation, acidosis, nausea, vomiting, headache, diarrhea, weakness, incoordination, dizziness, drowsiness, mental confusion, slurred speech, stupor, unconsciousness, ocular toxicity ranging from diminished visual capacity to complete blindness, and death.

**Chronic Overexposure:** can cause damage to liver, kidneys, eyes, lungs, blood, spleen, testis, brain and nervous system.

---

Emergency and First Aid Procedures

---

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if

Product Name:      TECHNI-SPERSE 251

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Section: 05 HEALTH HAZARD DATA

CONTINUED

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not breathing. If breathing is difficult, administer oxygen.  
Keep person warm, quiet and get medical attention.

INGESTION

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Call a physician immediately. Give victim a glass of water.  
Do NOT induce vomiting unless instructed by a physician or  
poison control center. Never give anything by mouth to an  
unconscious person.

---

Section: 06 REACTIVITY DATA

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Stable (Y=Yes/N=No): Y

---

Stability -- Conditions to Avoid

None known.

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Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents, strong alkalies,  
and strong mineral acids.

---

Hazardous Decomposition Products

Thermal decomposition or combustion may produce smoke,  
carbon monoxide and carbon dioxide.

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Hazardous Polymerization May Occur(Y=Yes/N=No): N

---

Hazardous Polymerization -- Conditions to Avoid

None

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Section: 07 SPILL OR LEAK PROCEDURES

---

Steps to be Taken if Material is Released or Spilled

Eliminate sources of ignition. Persons not wearing suitable  
personal protective equipment should be excluded from area  
of spill until clean-up has been completed. Shut off source  
of spill if possible to do so without hazard. Prevent mater-  
ial from entering sewers or watercourses. Provide adequate  
ventilation. Contain spilled materials with sand or earth.  
Recover undamaged and minimally contaminated material for  
reuse or reclamation. Place all collected material and spill  
absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous  
substance (see Section 10), notify the U.S.EPA and/or the  
National Response Center. Additional notification pursuant  
to SARA Section 302/304 (40 CFR 355) may also be required.

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Waste Disposal Method

Treatment, storage, transportation and disposal must be in  
accordance with EPA or State regulations under authority of  
the Resource Conservation and Recovery Act (40 CFR 260-271).

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Section: 07 SPILL OR LEAK PROCEDURES

CONTINUED

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Section: 08 SPECIAL PROTECTIVE INFORMATION

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Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure organic vapor type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation

The use of mechanical dilution ventilation is recommended whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

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Section: 09 SPECIAL PRECAUTIONS

---

Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

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. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

Product Name:      TECHNI-SPERSE 251

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Section: 09 SPECIAL PRECAUTIONSCONTINUED

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Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.  
FOR INDUSTRIAL USE ONLY

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Section: 10 REGULATORY INFORMATION

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Superfund Amendments and Reauthorization Act Of 1986(SARA) Title IIISection 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
**NONE**			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

<input checked="" type="checkbox"/> Acute Health Hazard	<input type="checkbox"/> Sudden Release of Pressure	<input checked="" type="checkbox"/> Fire
<input checked="" type="checkbox"/> Chronic Health Hazard	<input type="checkbox"/> Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
methanol	00067-56-1	< 20%
2-butoxyethanol	00111-76-2	< 5%
xylene	01330-20-7	< 5%

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in



Product Name: **TECHNI-SOLV 158**

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**Section: 01 PRODUCT IDENTIFICATION**  
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UNICHEM	Emergency Telephone	505-393-7751
A DIVISION OF BJ SERVICES CO.	Previous Version Date	10/01/96
707 N. LEECH	Date Prepared	12/10/97
HOBBS, NM 88241-1499	Version: 0000004	

Product Name: **TECHNI-SOLV 158**

Trade Name: **Paraffin Solvent**

Chemical Description:  
**Proprietary blend of nonionic dispersants in xylene.**

-----  
**Section: 02 HAZARDOUS INGREDIENTS**  
-----

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
xylene	001330-20-7	< 96%

-----  
**Section: 03 PHYSICAL DATA**  
-----

Freezing Point: - 40 Deg.F.  
Boiling Point, 760 mm Hg: 137 Deg.F  
Specific Gravity(M20=1) : 0.876 Solubility in water: Insoluble  
Appearance and Odor: Clear, yellow liquid; aromatic odor.

-----  
**Section: 04 FIRE AND EXPLOSION HAZARD DATA**  
-----

Flash Point (Test Method): 78 Deg.F TCC

Extinguishing Media

CO2, dry chemical, water spray or fog, or foam. Use water to keep containers cool. Isolate "fuel" supply from fire. Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Do not enter confined fire space without proper personal protective equipment including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.

Unusual Fire and Explosion Hazards

Treat as an extremely flammable liquid. This material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other

Product Name:      **TECHNI-SOLV 158**

-----  
**Section: 04 FIRE AND EXPLOSION HAZARD DATA    CONTINUED**  
-----

ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Containers may explode from internal pressure if confined to fire. Keep containers cool. Keep unnecessary people away.

-----  
**Section: 05 HEALTH HAZARD DATA**  
-----

Effects of Overexposure

**Eye Contact:** liquid and mist will cause severe irritation, redness, tearing, and blurred vision.

**Skin Contact:** prolonged or repeated contact may cause moderate irritation, defatting, dermatitis.

**Inhalation:** vapors and mists irritate mucous membranes.

Inhalation of higher concentrations may cause dizziness, weakness, fatigue, headaches, nausea, vomiting, and coma. Inhalation of very high concentrations or prolonged exposure may cause unconsciousness or death.

**Ingestion:** can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. If vomiting occurs spontaneously, do not allow vomitus to be breathed into the lungs as even a small quantity in the lungs may result in chemical pneumonitis and pulmonary edema/hemorrhage.

**Chronic effects of exposure:** prolonged or repeated exposure to high concentrations may cause neural dysfunction.

**Medical conditions generally aggravated by exposure:** pre-existing eye, skin and respiratory disorders.

**Target Organs:** eyes, skin, lungs, and CNS.

Emergency and First Aid Procedures

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or

Product Name:      **TECHNI-SOLV 158**

-----  
**Section: 05 HEALTH HAZARD DATA**

CONTINUED

-----  
poison control center. Never give anything by mouth to an unconscious person.

-----  
**Section: 06 REACTIVITY DATA**

-----  
Stable (Y=Yes/N=No): Y

Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents, strong alkalies, and strong mineral acids.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce smoke, carbon monoxide and carbon dioxide.

Hazardous Polymerization May Occur (Y=Yes/N=NO): N

Hazardous Polymerization -- Conditions to Avoid

None

-----  
**Section: 07 SPILL OR LEAK PROCEDURES**

-----  
Steps to be Taken if Material is Released or Spilled

Eliminate sources of ignition. Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled materials with sand or earth. Recover undamaged and minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers. Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S.EPA and/or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271).

-----  
**Section: 08 SPECIAL PROTECTIVE INFORMATION**

-----  
Respiratory Protection

If workplace exposure limit(s) of product or any component

Product Name: TECHN-SOLV 158

-----  
Section: 08 SPECIAL PROTECTIVE INFORMATION CONTINUED  
-----

is exceeded, an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure organic vapor type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation

The use of mechanical dilution ventilation is recommended whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

-----  
Section: 09 SPECIAL PRECAUTIONS  
-----

Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

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. Do not transfer to properly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.

FOR INDUSTRIAL USE ONLY

-----  
Section: 10 REGULATORY INFORMATION  
-----

Superfund Amendments and Reauthorization Act of 1986(SARA) Title III

Product Name: TECHN-SOLV 158

Section: 10 REGULATORY INFORMATION CONTINUED

Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
**NONE**			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

- Acute Health Hazard
- Sudden Release of Pressure
- Fire
- Chronic Health Hazard
- Reactive

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
xylene	001330-20-7	< 96%

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

<u>Component Name</u>	<u>CAS #</u>	<u>CERCLA RQ</u>
xylene	001330-20-7	100

OSHA Exposure Limits

<u>Component Name</u>	<u>TWA ppm:</u>	<u>TWA MG/M3:</u>	<u>435.0 STEL ppm:</u>	<u>150.0 STEL MG/M3:</u>	<u>655.0</u>
xylene					

Product Name:      **TECHNI-SOLV 158**

-----  
Section: 10 REGULATORY INFORMATION

CONTINUED  
-----

National Fire Protection Agency

2 Health

3 Fire

0 Reactive

\_\_\_\_\_ Other

Department of Transportation Shipping Information

Proper Shipping Name: Flammable liquids, n.o.s.

Hazard Class: 3

Identification: UN1993

Packaging Group: PG III

Contains: xylene

Hazardous Substance RQ: 104#

Emergency Response Guide Number: 128

Labels: Flammable liquid

Toxic Substances Control Act (TSCA), 40 CFR 261

This product, or components if product is a mixture, is/are listed on the Toxic Substances Control Act (TSCA) inventory.

Section 10 information is to remain attached to the material safety data sheet for this product.

While UNICHEM believes that the above data is correct, UNICHEM expressly disclaims liability for any loss or injury arising out of the use of this information or the use of any materials designated.

END OF MSDS

Product Name:    TECHNI-SOLV 158

-----  
Section: 11 LABEL INFORMATION  
-----

DANGER! FLAMMABLE LIQUID  
MAY BE HARMFUL IF SWALLOWED OR INHALED  
MAY CAUSE IRRITATION  
KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES  
IN CASE OF FIRE: USE WATER SPRAY, FOAM, DRY CHEMICAL OR CO2  
Do not get in eyes, on skin or on clothing.  
Avoid breathing vapors. Keep container closed.  
Use with adequate ventilation. Wash thoroughly after handling.

FIRST AID

=====

IN CASE OF SWALLOWING:

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or a poison control center. Never give anything by mouth to an unconscious person.

IN CASE OF CONTACT:

Immediately flush eyes with plenty of water for 15 minutes. Call a physician. Flush skin with water. Wash clothing before reuse.

IN CASE OF INHALATION:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

=====

CONTAINER HANDLING AND STORAGE:

Keep container tightly closed. Keep closure up to avoid leakage. Drum must not be washed out or used for other purposes. Replace closure after each withdrawal. Do not use pressure to empty drum. Do not transfer this material to improperly marked container. Keep out of reach of children.

IN CASE OF SPILLAGE:

Absorb spill with inert materials (e.g., dry sand or earth). Place in a chemical waste container. Flush spill area with water spray. For large spill, dike for later disposal.

CONTAINER DISPOSAL:

This container will contain traces of hazardous material when emptied. Do not cut or weld on empty container. Follow local, state and federal regulations for disposal.

Product Name:      TECHNI-CLEAN 420

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Section: 01 PRODUCT IDENTIFICATION

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UNICHEM INTERNATIONAL INC.	Emergency Telephone	505-393-7751
P.O. BOX 1499	Previous Version Date	4/15/92
707 N. LEECH	Date Prepared	9/21/93
HOBBS, NM 88241-1499	Version: 0000003	

Product Name: TECHNI-CLEAN 420

Trade Name: Surfactant

Chemical Description:  
Proprietary blend of water soluble surfactants

---

Section: 02 HAZARDOUS INGREDIENTS

---

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
methanol	00067-56-1	< 25%

---

Section: 03 PHYSICAL DATA

---

Freezing Point: - 1 Deg.F.  
Specific Gravity(H2O=1) : 0.990                      Solubility in water: Soluble  
Appearance and Odor: Amber liquid; alcoholic odor.

---

Section: 04 FIRE AND EXPLOSION HAZARD DATA

---

Flash Point (Test Method): 107 Deg.F TCC

Extinguishing Media

CO2, dry chemical, water spray or fog, or foam. Use water to keep containers cool. Isolate "fuel" supply from fire. Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Do not enter confined fire space without proper personal protective equipment including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.

Unusual Fire and Explosion Hazards

This material is combustible and under certain conditions may release vapors that pose a severe fire hazard. These vapors may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant

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Section: 04 FIRE AND EXPLOSION HAZARD DATA    CONTINUED  
-----

from material handling point. Containers may explode from internal pressure if confined to a fire. Keep unnecessary people away.

-----  
Section: 05 HEALTH HAZARD DATA  
-----

Effects of Overexposure

- Eye Contact: may cause moderate irritation, including burning sensation, tearing, redness or swelling. May cause permanent eye injury, even blindness.
- Skin Contact: prolonged or repeated exposure may cause skin irritation, redness, edema or drying of the skin.
- Skin Absorption: exposure to this material can result in absorption through skin causing health hazard.
- Inhalation: mists may cause irritation to upper respiratory tract. Overexposure may cause coughing, chest discomfort, shortness of breath, dizziness, intoxication and collapse. Excessive exposure may cause liver, kidney effects.
- Ingestion: has caused acidosis, ocular toxicity ranging from diminished visual capacity to complete blindness, and death. May cause lethargy, nausea, vomiting, and diarrhea.

Emergency and First Aid Procedures

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

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Section: 06 REACTIVITY DATA  
-----

Stable (Y=Yes/N=No): Y

Product Name:      TECHNI-CLEAN 420

---

Section: 06 REACTIVITY DATA

CONTINUED

---

Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents, strong alkalies, and strong mineral acids.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce smoke, carbon monoxide and carbon dioxide.

Hazardous Polymerization May Occur(Y=Yes/N=No): N

Hazardous Polymerization -- Conditions to Avoid

None

---

Section: 07 SPILL OR LEAK PROCEDURES

---

Steps to be Taken if Material is Released or Spilled

Eliminate sources of ignition. Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled materials with sand or earth. Recover undamaged and minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S.EPA and/or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271).

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Section: 08 SPECIAL PROTECTIVE INFORMATION

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Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure organic vapor type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation

The use of mechanical dilution ventilation is recommended

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Section: 08 SPECIAL PROTECTIVE INFORMATION    CONTINUED

---

whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

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Section: 09 SPECIAL PRECAUTIONS

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Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

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. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.

FOR INDUSTRIAL USE ONLY

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Section: 10 REGULATORY INFORMATION

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Superfund Amendments and Reauthorization Act Of 1986(SARA) Title III

Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the





Product Name:     TECHNI-HIB 3036

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Section: 10 REGULATORY INFORMATION

CONTINUED  
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for any loss or injury arising out of the use of this  
information or the use of any materials designated.

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END OF MSDS

Product Name:      TECHNI-CLEAN 420W

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Section: 01 PRODUCT IDENTIFICATION

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UNICHEM INTERNATIONAL INC.	Emergency Telephone	505-393-7751
P.O. BOX 1499	Previous Version Date	4/15/92
707 N. LEECH	Date Prepared	9/21/93
HOBBS, NM 88241-1499	Version: 0000003	

Product Name: TECHNI-CLEAN 420W

Trade Name: Surfactant

Chemical Description:  
Proprietary blend of water soluble surfactants

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Section: 02 HAZARDOUS INGREDIENTS

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<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
methanol	00067-56-1	< 35%

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Section: 03 PHYSICAL DATA

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Freezing Point: - 40 Deg.F.  
Specific Gravity(H2O=1) :      0.960                      Solubility in water: Soluble  
Appearance and Odor: Amber liquid; alcoholic odor.

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Section: 04 FIRE AND EXPLOSION HAZARD DATA

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Flash Point (Test Method):    90 Deg.F TCC

Extinguishing Media

CO2, dry chemical, water spray or fog, or foam. Use water to keep containers cool. Isolate "fuel" supply from fire. Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Do not enter confined fire space without proper personal protective equipment including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.

Unusual Fire and Explosion Hazards

This material is volatile and readily gives off vapors that may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum

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Section: 04 FIRE AND EXPLOSION HAZARD DATA    CONTINUED

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(even empty) because product (even just residue) can ignite explosively. Containers may explode from internal pressure if confined to fire. Keep containers cool. Keep unnecessary people away.

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Section: 05 HEALTH HAZARD DATA

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Effects of Overexposure

- Eye Contact: may cause moderate irritation, including burning sensation, tearing, redness or swelling. May cause permanent eye injury, even blindness.
- Skin Contact: prolonged or repeated exposure may cause skin irritation, redness, edema or drying of the skin.
- Skin Absorption: exposure to this material can result in absorption through skin causing health hazard.
- Inhalation: mists may cause irritation to upper respiratory tract. Overexposure may cause coughing, chest discomfort, shortness of breath, dizziness, intoxication and collapse. Excessive exposure may cause liver, kidney effects.
- Ingestion: has caused acidosis, ocular toxicity ranging from diminished visual capacity to complete blindness, and death. May cause lethargy, nausea, vomiting, and diarrhea.

Emergency and First Aid Procedures

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

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Section: 06 REACTIVITY DATA

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Stable (Y=Yes/N=No): Y

Product Name:      TECHNI-CLEAN 420W

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Section: 06 REACTIVITY DATA

CONTINUED

-----  
Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents, strong alkalies, and strong mineral acids.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce smoke, carbon monoxide and carbon dioxide.

Hazardous Polymerization May Occur(Y=Yes/N=No): N

Hazardous Polymerization -- Conditions to Avoid

None

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Section: 07 SPILL OR LEAK PROCEDURES

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Steps to be Taken if Material is Released or Spilled

Eliminate sources of ignition. Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled materials with sand or earth. Recover undamaged and minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S.EPA and/or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271).

-----  
Section: 08 SPECIAL PROTECTIVE INFORMATION

-----  
Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure organic vapor type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation

The use of mechanical dilution ventilation is recommended

whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

Section: 09 SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

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. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.

FOR INDUSTRIAL USE ONLY

Section: 10 REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act Of 1986(SARA) Title III

Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the

Product Name: TECHNI-CLEAN 420W

## Section: 10 REGULATORY INFORMATION

CONTINUED

regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
**NONE**			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

<input checked="" type="checkbox"/> Acute Health Hazard	<input type="checkbox"/> Sudden Release of Pressure	<input checked="" type="checkbox"/> Fire
<input checked="" type="checkbox"/> Chronic Health Hazard	<input type="checkbox"/> Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
methanol	00067-56-1	< 35%

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

<u>Component Name</u>	<u>CAS #</u>	<u>CERCLA RQ</u>
methanol	00067-56-1	5000

OSHA Exposure Limits

<u>Component Name</u>
methanol

TWA ppm: 200.0 TWA MG/M3: 260.0 STEL ppm: 250.0 STEL MG/M3: 310.0 Skin: x

National Fire Protection Agency

<u>2</u> Health	<u>3</u> Fire
<u>0</u> Reactive	_____ Other

Department of Transportation Shipping Information

Proper Shipping Name: Flammable liquids, n.o.s.



# MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT NAME:	TRETOLITE (R) PAO0100F
IDENTIFICATION NUMBER:	PAO0100F
PRODUCT USE/CLASS:	Paraffin Solvent
MANUFACTURER/SUPPLIER	EMERGENCY TELEPHONE NUMBERS (24 HOUR):
Petrolite Corporation 369 Marshall Ave St. Louis, Mo 63119-1897  CUSTOMER CARE: 1-800-872-1916 8:00am-5:00pm Monday-Friday (CST)	Chemtrec: 800-424-9300 Canutec: 613-966-6666
Preparer: Mike Newberry	Prepare Date: 07/13/95
Title: Sr. Product Manager	Supersedes Date: 06/20/95
	Date Printed: 08/16/95

2. COMPOSITION/INFORMATION ON INGREDIENTS						
ITEM	HAZARDOUS INGREDIENTS			CAS #	WT/WT %	
01	Toluene			108-88-3	30-60	
02	Xylene*			1330-20-7	1-5	
03	VM&P Naphtha			64742-89-8	30-60	
* Solvent Component						
ITEM	TLV-TWA	ACGIH TLV-STEL	PEL-TWA	OSHA PEL-CEIL	COMPANY TLV-TWA	SKIN
01	50ppm	N.E.	200ppm	N.E.	N.E.	Y
02	100ppm	150ppm	100ppm	N.E.	N.E.	N
03	300ppm	N.E.	N.E.	N.E.	N.E.	N

Product Name:	TRETOLITE (R) PA00100F	Date Prepared:	07/13/95
Product Number:	PA00100F	Supersedes:	06/20/95

## 2. COMPOSITION/INFORMATION ON INGREDIENTS - continued

This product contains the following NON-HAZARDOUS COMPONENTS:

CHEMICAL NAME	CAS NUMBER
No NON-HAZARDOUS COMPONENTS are contained in this product	
(See Section 16 for abbreviation legend)	

## SECTION 3 - HAZARDS IDENTIFICATION

### \*\*\* EMERGENCY OVERVIEW \*\*\*:

Appearance: Yellow liquid

Odor: Aromatic odor

FLAMMABLE liquid and vapor. Skin and eye irritant. May cause irritation to the respiratory tract. Contains a material which can be absorbed through the skin. Contains a material which can cause liver and kidney damage. Contains a material which can cause nervous system effects. Contains a material which may cause embryo/fetotoxicity based on animal data. Contains a material which may cause effects to the blood and/or bone marrow. Contains a material which may cause cardiac effects.

#### EFFECTS OF EXPOSURE - EYE CONTACT:

Direct eye contact may cause mild to severe irritation and may produce moderate, but reversible eye injury.

#### EFFECTS OF EXPOSURE - SKIN CONTACT:

Direct skin contact may cause irritation. Prolonged and repeated skin contact may cause irritation and possibly dermatitis. A component(s) of this product may be slightly absorbed through the skin upon direct contact, possibly resulting in toxic effects similar to those of inhalation.

#### EFFECTS OF EXPOSURE - INHALATION:

Prolonged, repeated, or high exposures may cause irritation to the respiratory tract (nose, mouth, mucous membranes). Prolonged, repeated, or high exposures may cause chemical pneumonitis and, in extreme cases, pulmonary edema. Prolonged, repeated or high exposures may cause central nervous system depression leading to headaches, nausea, drowsiness, dizziness, and possibly narcosis. In extreme cases, may cause loss of consciousness. Acute overexposure to a component(s) in this product has been shown to cause cardiac injury. Ingestion of ethyl alcohol in conjunction with exposure to a component(s) of this product may increase the adverse health effects expected from ethyl alcohol alone.

#### EFFECTS OF EXPOSURE - INGESTION:

Harmful if swallowed. May cause severe gastrointestinal disturbance with headache, nausea, vomiting and diarrhea. Aspiration into lungs may cause pulmonary edema and chemical pneumonitis. May be readily absorbed through the gastrointestinal tract. Effects of ingestion are similar to those of inhalation.

#### EFFECTS OF EXPOSURE - CHRONIC EFFECTS:

~~A component(s) of this product may cause kidney and liver damage upon prolonged and repeated overexposures. A component(s) of this product has been shown to cause adverse blood, bone marrow and~~

<b>Product Name:</b>	TRETOLITE (R) PA00100F	<b>Date Prepared:</b>	07/13/95
<b>Product Number:</b>	PA00100F	<b>Supersedes:</b>	06/20/95

### SECTION 3 - HAZARDS IDENTIFICATION - continued

cardiac effects in laboratory animals. A component of this product may cause blood disorders upon high exposures. Animal studies have shown that a component(s) of this product is associated with adverse effects or embryo/fetotoxicity at maternally toxic dosage levels.

**EFFECTS OF EXPOSURE - CARCINOGENICITY:**

No known information.

**PRIMARY ROUTE(S) OF ENTRY:** Skin Contact, Skin Absorption, Inhalation, Eye Contact

### SECTION 4 - FIRST AID MEASURES

**EYES:**

If material gets into eyes, flush with water immediately for 15 minutes. Consult a physician.

**SKIN:**

Wash skin thoroughly with soap and water. If rash or irritation develops, consult a physician. Launder clothing before reuse.

**INHALATION:**

If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe.

**INGESTION:**

Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Consult a physician immediately.

**NOTE TO PHYSICIAN:** Administer activated carbon if indicated.

### SECTION 5 - FIRE-FIGHTING MEASURES

<b>Flashpoint and Method:</b>	44 F (7 C) SFCC ASTM D-3828		
<b>Flammable Limits:</b>	LEL:	N.D.	UEL: N.D.
<b>Autoignition Temperature :</b>	N.D.		

**EXTINGUISHING MEDIA:** Alcohol Foam, CO2, Dry Chemical, Foam, Water Fog

**HAZARDOUS COMBUSTION PRODUCTS:**

Oxides of carbon.

**FIRE-FIGHTING PROCEDURES AND EQUIPMENT:**

Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Flammable. Cool fire-exposed containers using water spray.

<b>Product Name:</b>	TRETOLITE (R) PA00100F	<b>Date Prepared:</b>	07/13/95
<b>Product Number:</b>	PA00100F	<b>Supersedes:</b>	06/20/95

#### SECTION 5 - FIRE-FIGHTING MEASURES - continued

##### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Flammable liquid. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back.

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES

##### SMALL SPILLS:

Use personal protective equipment as necessary. Absorb with suitable chemical absorbent. Dispose of material in accordance with all federal, state and local regulations.

##### LARGE SPILLS:

Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Absorb residue with suitable chemical absorbent. Dispose of material in accordance with all federal, state and local regulations. Use personal protective equipment as necessary.

##### OTHER:

No known information.

#### SECTION 7 - HANDLING AND STORAGE

##### HANDLING AND STORAGE:

Flammable liquid. Avoid heat, sparks and open flames. Avoid breathing vapor and contact with eyes, skin and clothing. Keep container closed when not in use. Hazardous residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning. Use in well ventilated area.

#### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

##### RESPIRATORY PROTECTION:

When concentrations exceed the exposure limits specified, use of a NIOSH-approved organic vapor cartridge respirator is recommended. Where the protection factor may be exceeded, use of a full facepiece, supplied air or Self Contained Breathing Apparatus (SCBA) may be necessary.

##### PERSONAL PROTECTION:

Chemical resistant gloves and chemical goggles should be used to prevent skin and eye contact.

##### ENGINEERING CONTROLS:

Local ventilation of emission sources may be necessary to maintain ambient concentrations below recommended exposure limits.

<b>Product Name:</b>	TRETOLITE (R) PA00100F	<b>Date Prepared:</b>	07/13/95
<b>Product Number:</b>	PA00100F	<b>Supersedes:</b>	06/20/95

### SECTION 9 - TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

Solubility in Water:	Insoluble
Density @ 60 F (16 C):	6.73 lb/USgal
Specific Gravity @ 60 F (16 C):	0.81
Flash Point SFCC ASTM D-3828:	44 F (7 C)
Boiling Range ASTM D-86:	N.D.
Vapor Pressure:	N.D.
Pour Point ASTM D-97:	-40 F
pH @ 5.0% in 75/25 Isopropanol/Water:	N.D.
Viscosity ASTM D-445:	
@ 60 F ( 16 C)	32 SUS
@ 30 F (- 1 C)	33 SUS
@ 0 F (-18 C)	35 SUS
Freezing Point:	N.D.
Odor Threshold:	N.D.
Evaporation Rate:	Is slower than Ether
Vapor Density:	Is heavier than air
Coefficient of Water/Oil Distribution:	N.D.
Physical State:	N.D.

(See Section 16 for abbreviation legend)

### SECTION 10 - STABILITY AND REACTIVITY

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

**INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:**  
Keep away from strong oxidizing agents, heat and open flames.

**HAZARDOUS DECOMPOSITION PRODUCTS:**  
No known information.

Product Name:	TRETOLITE (R) PA00100F	Date Prepared:	07/13/95
Product Number:	PA00100F	Supersedes:	06/20/95

### SECTION 11 - TOXICOLOGICAL INFORMATION

#### PRODUCT TOXICOLOGICAL INFORMATION

No known information

**EYE IRRITATION SCORE(S):**

No known information.

**SKIN IRRITATION SCORE(S):**

No known information.

**OTHER:**

No known information.

#### COMPONENT TOXICOLOGICAL INFORMATION:

	<u>LD50 Dermal</u>	<u>LD50 Oral</u>	<u>LC50 Inhalation</u>
Toluene	14 g/kg-RB	5 g/kg-R	8000 ppm/4H-R
Xylene*	>3.95g/kg-RB	4.3 g/kg-R	5000 ppm/4H-R
VM&P Naphtha	N.D.	N.D.	N.D.

**LEGEND:**

R = Rat  
 RB = Rabbit  
 M = Mouse  
 GP = Guinea Pig

### SECTION 12 - ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:**

Petrolite has ECOTOX\* Reports for many products. Please call for more information.

### SECTION 13 - DISPOSAL INFORMATION

**DISPOSAL INFORMATION:**

Dispose of material in accordance with applicable federal, state and local regulations.

<b>Product Name:</b>	TRETOLITE (R) PA00100F	<b>Date Prepared:</b>	07/13/95
<b>Product Number:</b>	PA00100F	<b>Supersedes:</b>	06/20/95

#### SECTION 14 - TRANSPORTATION INFORMATION

##### U.S. DEPARTMENT OF TRANSPORTATION (D.O.T.) INFORMATION:

Proper Shipping Name: Flammable liquid, n.o.s.

Technical Description: (contains VM&P naphtha and Toluene)

Hazard Classes: Primary: 3 Secondary: N.A. Tertiary: N.A.

UN/NA Number: UN1993 Packing Group: II D.O.T. Emergency Response Guide: 027

Marine Pollutant: N.A.

##### INTERNATIONAL MARITIME ORGANIZATION (I.M.O.) INFORMATION:

Proper Shipping Name: Flammable liquid, n.o.s.

Technical Description: (contains VM&P naphtha and Toluene)

Hazard Classes: Primary: 3.2 Secondary: N.A. Tertiary: N.A.

UN/NA Number: UN1993 Packing Group: II IMDG Code Page: 3230

EMS Number: 3-07

MFAG Table Number 1: 311 MFAG Table Number 2: N.A.

Marine Pollutant: N.A.

Schedule 'B' Number: 2707.50.00001

##### CANADIAN TRANSPORTATION OF DANGEROUS GOODS (T.D.G.) INFORMATION:

Proper Shipping Name: Flammable liquid, n.o.s.

Technical Description: (contains VM&P naphtha and Toluene)

Hazard Classes: Primary: 3 Secondary: 9.2 Tertiary: N.A.

UN/NA Number: UN1993 Packing Group: II

Product Name:	TRETOLITE (R) PA00100F	Date Prepared:	07/13/95
Product Number:	PA00100F	Supersedes:	06/20/95

#### SECTION 14 - TRANSPORTATION INFORMATION - continued

##### MISC. SHIPPING INFORMATION:

Petrolite Label Codes:

D.O.T.:

Warning Label: 004 Flammable Liquid, Toxic, Irritant - logo  
 Shipping Sticker: 760 Flammable liquid, n.o.s.(contains VM&P naphtha and Toluene) UN1993

I.M.O.:

Warning Label: 004 Flammable Liquid, Toxic, Irritant - logo  
 Shipping Sticker: 760 Flammable liquid, n.o.s.(contains VM&P naphtha and Toluene) UN1993

T.D.G.:

Warning Label: N.A.

Shipping Sticker: N.A.

Other Labels:

Add-on Label1: N.A.  
 Add-on Label2: N.A.  
 Add-on Label3: N.A.  
 Add-on Label4: N.A.  
 Add-on Label5: N.A.  
 Add-on Label6: N.A.

NFPA Label: 813 NFPA Label Health=2 Flammability=3 Reactivity=0 Special=blank

MGD Label: S

National Motor Freight

Class Code: 050232 Iron or Steel Cleaning Compounds, Liquid, NOI LTL 55 TL 35

#### SECTION 15 - REGULATORY INFORMATION

##### CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES:

The Petrolite product contains the following listed hazardous substances subject to the release reporting requirements of the United States Environmental Protection Agency (EPA) regulation, 40 CFR Part 302, pursuant to the Comprehensive Environment Response, Compensation and Liability Act of 1980 (CERCLA). The Reportable Quantities (RQs) are presented in pounds of listed hazardous substance. The RQ is also calculated in gallons of equivalent product.

Product Name:	TRETOLITE (R) PA00100F	Date Prepared:	07/13/95
Product Number:	PA00100F	Supersedes:	06/20/95

**SECTION 15 - REGULATORY INFORMATION - continued**

Chemical Name	CAS Number	RQ #	RQ, GAL
Toluene	108-88-3	1,000	291
Xylene*	1330-20-7	100	479

**SARA EXTREMELY HAZARDOUS SUBSTANCES and REPORTABLE QUANTITIES:**

This Petrolite product contains the following listed Extremely Hazardous Substances (EHS's) subject to the release reporting requirements of the United States Environment Protection Agency (EPA) regulation 40 CFR Part 304 of the Superfund Amendments and Reauthorization Act of 1986 (SARA). The Reportable Quantities (RQ's) and the Threshold Planning Quantities (TPQ's) are calculated in gallons of equivalent product. Each entry corresponds to the RQ or TPQ, in pounds, for each listed EHS. No data is given for EHS's present in concentrations below applicable De Minimis levels.

Chemical Name	CAS Number	RQ #	RQ GAL	TPQ#	TPQ GAL
---------------	------------	------	-----------	------	------------

No SARA Extremely Hazardous materials present in this product.

**SARA 311/312:**

This Petrolite product has been assigned to the following hazard and physical categories subject to the reporting requirements of EPA regulation 40 CFR Part 370, pursuant to Sections 311 and 312 of SARA.

Hazard: Immediate Health, Fire

Physical: Liquid, Mixture

**SARA SECTION 313:**

This Petrolite product contains the following listed toxic substances subject to the reporting requirements of EPA regulation 40 CFR Part 372 pursuant to Section 313 of SARA.

Chemical Name	CAS Number	Wt/Wt %
Toluene	108-88-3	51 %
Xylene*	1330-20-7	3.1 %
VM&P Naphtha	64742-89-8	45 %

**NEW JERSEY RIGHT-TO-KNOW:**

The following materials are non-hazardous, but are among the top five components in this product:

Chemical Name	CAS Number
---------------	------------

No non-hazardous materials are among the top five ingredients.

Product Name:	TRETOLITE (R) PA00100F	Date Prepared:	07/13/95
Product Number:	PA00100F	Supersedes:	06/20/95

**SECTION 15 - REGULATORY INFORMATION - continued**

**PENNSYLVANIA RIGHT-TO-KNOW:**

The following non-hazardous ingredients are present in the product at greater than 3%:

Chemical Name \_\_\_\_\_ CAS Number \_\_\_\_\_

No non-hazardous ingredients are present in the product at greater than 3%.

**CALIFORNIA AB-2588:**

This Petrolite product contains the following listed air toxic substances subject to the reporting requirements of California Code of Regulations, Title 17 and 26, Subchapter 7.6 pursuant to the Air Toxics "Hot Spots" Information and Assessment Act of 1987.

Chemical Name	CAS Number	Wt/Wt %
Toluene	108-88-3	51 %

**U.S. TOXIC SUBSTANCES CONTROL ACT:**

This product or its components, if a mixture, are listed on the Toxic Substance Control Act (TSCA) inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA Section 12(b) if exported from the United States:

Chemical Name \_\_\_\_\_ CAS Number \_\_\_\_\_

No TSCA 12(b) chemicals are present in the product.

**INTERNATIONAL REGULATIONS:**

**CANADIAN WHMIS:**

This Material Safety Data Sheet has been prepared in compliance with the Controlled Product Regulations

If the Canadian Hazardous Products Act and/or the Controlled Product Regulations apply to the chemical product listed in Section 1 of the Material Safety Data Sheet, the disclaimer contained in Section 16 of this Material Safety Data Sheet, as it relates to information required to be disclosed by such law and/or regulations, is amended to the extent necessary to conform to such law and/or regulations.

**CANADIAN WHMIS CLASS: B2,D2A**

**CANADIAN DOMESTIC SUBSTANCE LIST (DSL):**

This product, or one or more of its components, if a mixture, are listed on the Canadian Domestic Substances List (DSL) except if the product or any of its components were first manufactured or imported into Canada between January 1, 1987 and July 1, 1994, in which case, said "transitional substances" have been reported for the DSL under New Substances Notification (NSN) Procedures.

<b>Product Name:</b>	TRETOLITE (R) PA00100F	<b>Date Prepared:</b>	07/13/95
<b>Product Number:</b>	PA00100F	<b>Supersedes:</b>	06/20/95

### SECTION 16 - OTHER INFORMATION

#### CALIFORNIA PROPOSITION 65:

**WARNING.** This product contains a chemical known to the State of California to cause cancer. **Warning.** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

#### NFPA:

Health:	2
Flammability:	3
Reactivity:	0
Special:	N.A.

**LEGEND:** N.A. - Not Applicable,  
N.E. Not Established,  
N.D. - Not Determined

#### REVISION SUMMARIES:

6/20 removed cancer statements associated with toluene  
7/13/95 Update RQ for Xylene, Sect. 15  
File 704

The information and recommendations contained hereon are believed to be accurate and reliable as of the date issued. However, we do not warrant their accuracy or reliability.

We only warrant to you, but no other persons, that the product referenced herein shall conform to our quality assurance specifications for the product on the date of shipment to you. WE EXPRESSLY DISCLAIM ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any technical advice, information or recommendation given to you is given gratis without any warranty whatsoever as to the advice, information or recommendation given or results obtained.

You shall assume all risks and shall be solely responsible for the results obtained from the storage, handling or use of the product and any information or recommendation regarding the product, whether alone or in combination with other substances.

UNDER NO CIRCUMSTANCES SHALL WE BE LIABLE FOR ANY ECONOMIC, CONSEQUENTIAL (INCLUDING LOST PROFITS OR SAVINGS) OR INCIDENTAL DAMAGES, EVEN IF WE ARE INFORMED OF THEIR POSSIBILITY, EXEMPLARY OR PUNITIVE DAMAGES, REGARDLESS OF THE FORM OR ACTION, WHETHER IN CONTRACT OR TORT, INCLUDING OUR SOLE OR JOINT NEGLIGENCE AND STRICT LIABILITY.



PETROLITE

## MATERIAL SAFETY DATA SHEET

PAGE 2

\*\*\*CONTINUATION OF CRW0170F\*\*\*

## FLASH METHOD:

SFCC ASTM D-3828

## EXTINGUISHING MEDIA:

Use water spray or fog, alcohol-type foam, dry chemical or CO2.

## FIRE FIGHTING PROCEDURES:

Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Flammable. Cool fire-exposed containers using water spray.

## UNUSUAL FIRE AND EXPLOSION HAZARDS:

Flammable liquid, vapors of which can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back.

\*\*\*\*\*  
SECTION 5 HEALTH HAZARD DATA

## EFFECTS OF OVEREXPOSURE:

## INHALATION:

Prolonged exposure may cause mild irritation of mucous membranes, headache and tiredness. At elevated concentrations, symptoms may include nausea, shortness of breath and a sense of drunkenness. In extreme cases, visual disturbances and ocular damage may occur. Inhalation of mists or exposure to very high vapor concentrations may cause extreme eye, nose and respiratory irritation, and may result in lung damage. Prolonged over-exposure may result in chemical pneumonitis and systemic effects.

## SKIN AND EYE CONTACT:

Brief, intermittent skin contact may cause moderate to severe irritation resulting in skin rashes. Prolonged contact may cause severe irritation or burns where clothing is confined. Contact with eyes may produce severe irritation or burns with transient eye injury.

## INGESTION:

May cause severe gastrointestinal distress with nausea, vomiting and diarrhea. Aspiration into lungs may cause pulmonary edema and chemical pneumonitis. May be readily absorbed through the gastrointestinal tract. Ingestion of methanol may result in a feeling of intoxication and can cause visual disturbances and, in extreme cases, ocular damage.

\*\*\*CONTINUED ON PAGE: 3\*\*\*



# MATERIAL SAFETY DATA SHEET

\*\*\*CONTINUATION OF CRW0170F\*\*\*

**EMERGENCY AND FIRST AID PROCEDURES:**

If contacted, wash skin immediately with soap and water. Remove contaminated clothing and wash before reuse. If irritation or burns develop, consult a physician. If in eyes, irrigate with flowing water immediately and continuously for fifteen minutes. Consult a physician. If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe.

If ingested, induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician immediately.

\*\*\*\*\*

## SECTION 6 REACTIVITY DATA

**STABILITY:**

Stable under normal conditions of storage and use.

**INCOMPATIBILITY:**

Keep away from strong oxidizing agents, heat and open flames.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Oxides of nitrogen and sulfur.

**HAZARDOUS POLYMERIZATION:**

Will not occur.

\*\*\*\*\*

## SECTION 7 SPILL AND LEAK PROCEDURES

**IF MATERIAL IS SPILLED OR RELEASED:**

Small spill - Absorb on paper, cloth or other material.

Large spill - Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Cover residue with dirt, or suitable chemical adsorbent. Use personal protective equipment as necessary.

**DISPOSAL METHOD:**

Place chemical residues and contaminated adsorbent materials into a suitable waste container and take to an approved hazardous waste disposal site. Dispose of all residues in accordance with applicable waste management regulations.

**DECONTAMINATION PROCEDURES:**

Not appropriate.

\*\*\*CONTINUED ON PAGE: 4\*\*\*



# MATERIAL SAFETY DATA SHEET

\*\*\*CONTINUATION OF CRW0170F\*\*\*

\*\*\*\*\*

## SECTION 8 SPECIAL PROTECTION INFORMATION

### RESPIRATORY PROTECTION:

When concentrations exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a self-contained breathing unit may be necessary.

### VENTILATION:

General ventilation should be provided to maintain ambient concentrations below nuisance levels. Local ventilation of emission sources may be necessary to maintain ambient concentrations below recommended exposure limits.

### PROTECTIVE CLOTHING:

Chemical-resistant gloves and chemical goggles, face shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.

\*\*\*\*\*

## SECTION 9 SPECIAL PRECAUTIONS

Flammable liquid. Avoid heat, sparks and open flames. Avoid breathing of vapors and contact with eyes, skin or clothing. Keep container closed when not in use. Hazardous product residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning.

\*\*\*\*\*

Although the information and recommendations set forth herein are believed to be correct as of the date hereof, Petrolite makes no representations to the accuracy of such information and recommendations. It is the user's responsibility to determine the suitability and completeness of such information and recommendation for its own particular use. Petrolite shall not be responsible for any direct, indirect, incidental or consequential damages of whatsoever nature resulting from the publication, use of or reliance upon such information and recommendations.

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\*\*\*CONTINUATION OF CRW0037F\*\*\*

## FIRE FIGHTING PROCEDURES:

Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Combustible. Keep fire exposed containers cool using water spray.

## UNUSUAL FIRE AND EXPLOSION HAZARDS:

At elevated temperatures, vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back.

\*\*\*\*\*

## SECTION 5 HEALTH HAZARD DATA

## EFFECTS OF OVEREXPOSURE:

## INHALATION:

Prolonged exposure may cause mild irritation of mucous membranes, headache and tiredness. At elevated concentrations, symptoms may include nausea, shortness of breath and a sense of drunkenness. In extreme cases, visual disturbances and ocular damage may occur. Inhalation of mists or exposure to very high vapor concentrations may cause extreme eye, nose and respiratory irritation, and may result in lung damage. Prolonged over-exposure may result in chemical pneumonitis and systemic effects.

## SKIN AND EYE CONTACT:

Brief, intermittent skin contact may cause moderate to severe irritation resulting in skin rashes. Prolonged contact may cause severe irritation or burns where clothing is confined. Contact with eyes may produce severe irritation or burns with transient eye injury.

## INGESTION:

May be harmful if swallowed. May cause gastrointestinal distress with nausea, vomiting and diarrhea. Ingestion of methanol may result in a feeling of intoxication and can cause visual disturbances and, in extreme cases, ocular damage.

## EMERGENCY AND FIRST AID PROCEDURES:

If contacted, wash skin immediately with soap and water. Remove contaminated clothing and wash before reuse. If irritation or burns develop, consult a physician. If in eyes, irrigate with flowing water immediately and continuously for fifteen minutes. Consult a physician. If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe.

\*\*\*CONTINUED ON PAGE: 3\*\*\*

\*\*\*CONTINUATION OF CRW0037F\*\*\*

If ingested, induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician immediately.

\*\*\*\*\*

SECTION 6 REACTIVITY DATA

STABILITY:

Stable under normal conditions of storage and use.

INCOMPATIBILITY:

Keep away from strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:

Oxides of nitrogen. HCl.

HAZARDOUS POLYMERIZATION:

Will not occur.

\*\*\*\*\*

SECTION 7 SPILL AND LEAK PROCEDURES

IF MATERIAL IS SPILLED OR RELEASED:

Small spill - Absorb on paper, cloth or other material.  
Large spill - Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Cover residue with dirt, or suitable chemical adsorbent. Use personal protective equipment as necessary.

DISPOSAL METHOD:

Place chemical residues and contaminated adsorbent materials into a suitable waste container and take to an approved hazardous waste disposal site. Dispose of all residues in accordance with applicable waste management regulations.

DECONTAMINATION PROCEDURES:

Not appropriate.

\*\*\*\*\*

SECTION 8 SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

When concentrations exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a self-contained breathing unit may be necessary.

\*\*\*CONTINUED ON PAGE: 4\*\*\*

\*\*\*CONTINUATION OF CRW0037F\*\*\*

VENTILATION:

General ventilation should be provided to maintain ambient concentrations below nuisance levels. Local ventilation of emission sources may be necessary to maintain ambient concentrations below recommended exposure limits.

PROTECTIVE CLOTHING:

Chemical-resistant gloves and chemical goggles should be used to prevent skin and eye contact.

\*\*\*\*\*

SECTION 9 SPECIAL PRECAUTIONS

Avoid heat, sparks and open flames. Avoid breathing of vapors and contact with eyes, skin or clothing. Keep container closed when not in use. Hazardous product residue may remain in emptied container. Do not reuse empty container without commercial cleaning or reconditioning.

\*\*\*\*\*

Although the information and recommendations set forth herein are believed to be correct as of the date hereof, Petrolite makes no representations to the accuracy of such information and recommendations. It is the user's responsibility to determine the suitability and completeness of such information and recommendation for its own particular use. Petrolite shall not be responsible for any direct, indirect, incidental or consequential damages of whatsoever nature resulting from the publication, use of or reliance upon such information and recommendations.

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333-A

PETROLITE CORPORATION  
369 MARSHALL AVE.  
ST. LOUIS MO 63119 U.S.A.

REVISION DATE: 10/11/93  
CHEMTREC EMER NO: 1-800-424-9300  
INFORMATION PHONE: 1-314-961-3500

PRODUCT: CRW0037F

The following information is provided for the convenience of Petrolite customers. This Environmental Data Sheet is incorporated into the Material Safety Data Sheet (MSDS) for the Petrolite product named above. When physically attached to the MSDS, this Environmental Data Sheet must not be detached from the MSDS. Any copying or redistribution of the MSDS to which this Environmental Data Sheet is attached must include copying and redistribution of this Environmental Data Sheet as well.

Petrolite makes reasonable efforts to assure the accuracy of this information, but makes no representation or warranty about it. This information is not intended as legal advice nor as a definitive guide to the requirements of applicable laws and regulations.

NFPA DESIGNATION 704

PRODUCT LABEL CODES		DEGREE OF HAZARD
HEALTH (BLUE)	= 1	0 = LEAST
FLAMMABILITY (RED)	= 2	1 = SLIGHT
REACTIVITY (YELLOW)	= 0	2 = MODERATE
SPECIAL HAZARDS	=	3 = HIGH
		4 = EXTREME

TSCA INVENTORY

This product, or its components, if a mixture, are on the Toxic Substance Control Act (TSCA) inventory.

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 ST. LOUIS MO 63119 U.S.A.

REVISION DATE: 10/11/93  
 CHEMTREC EMER NO: 1-800-424-9300  
 INFORMATION PHONE: 1-314-961-3500

PRODUCT: CRW0037F

CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

This Petrolite product contains the following materials which have been listed as a hazardous substance or substances subject to the release reporting requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and 40 CFR Part 302 and 40 CFR 355.40. The reportable quantities (RQs) are calculated in gallons of product. Each entry corresponds to the RQ, in pounds, of the listed CERCLA hazardous substance.

CHEMICAL	CAS NUMBER	RQ, #	RQ, GAL
Methanol	67-56-1	5,000	3,990

SARA TITLE III, EXTREMELY HAZARDOUS SUBSTANCES

This Petrolite product contains the following materials which have been listed as an Extremely Hazardous Substance or Substances subject to the emergency planning provisions of SARA Title III, Section 302 and 40 CFR 355.30, the release reporting requirements of SARA Title III, Section 304 and 40 CFR 355.40, and the hazardous chemical reporting/community right-to-know requirements of SARA Title III, Section 312 and 40 CFR Part 370. The reportable quantities (RQs) and threshold planning quantities (TPQs) are calculated in gallons of product. Each entry corresponds to the RQ or TPQ in pounds, as appropriate, for the listed Extremely Hazardous Substances. No data is given for listed Extremely Hazardous Substances present in concentrations below applicable de minimis levels.

\*\*\*\* NONE \*\*\*\*

SARA TITLE III, SECTION 311: HAZARD CATEGORIES

This Petrolite product has been assigned to the following hazard category(ies), as provided by SARA Title III, Section 311 and 40 CFR 370, Subpart A, 370.2:

Acute (immediate) health hazard

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REVISION DATE: 10/11/93  
CHEMTREC EMER NO: 1-800-424-9300  
INFORMATION PHONE: 1-314-961-3500

PRODUCT: CRW0037F

SARA TITLE III, SECTION 311: HAZARD CATEGORIES (CONT)

Fire hazard

SARA TITLE III, SECTION 312 INVENTORY REPORTING INFORMATION

This Petrolite product has the following physical characteristics for any required reporting on the federal Tier Two form or its equivalent:

MIXTURE  
LIQUID

SARA TITLE III, SECTION 313

This Petrolite product contains the following materials which have been listed as a toxic chemical or chemicals 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:

CHEMICAL	CAS NUMBER	WEIGHT PERCENT
Methanol	67-56-1	14.6 %

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Product Name:      TECHNI-HIB 377

-----  
Section: 01 PRODUCT IDENTIFICATION  
-----

UNICHEM INTERNATIONAL INC.	Emergency Telephone	505-393-7751
P.O. BOX 1499	Previous Version Date	3/03/92
707 N. LEECH	Date Prepared	9/21/93
HOBBS, NM 88241-1499	Version: 0000003	

Product Name: TECHNI-HIB 377

Trade Name: Corrosion Inhibitor

Chemical Description:  
Proprietary blend of cationic amines in water and alcohol-----  
Section: 02 HAZARDOUS INGREDIENTS  
-----

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
methanol	00067-56-1	< 20%

-----  
Section: 03 PHYSICAL DATA  
-----Freezing Point:      1 Deg.F.  
Specific Gravity(H2O=1) :      0.950              Solubility in water: Soluble  
Appearance and Odor: Clear, yellow liquid; alcohol odor.-----  
Section: 04 FIRE AND EXPLOSION HAZARD DATA  
-----Flash Point (Test Method):   99 Deg.F TCCExtinguishing Media

CO2, dry chemical, water spray or fog, or foam. Use water to keep containers cool. Isolate "fuel" supply from fire. Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Do not enter confined fire space without proper personal protective equipmen. including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.

Unusual Fire and Explosion Hazards

Treat as an extremely flammable liquid. This material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling

Product Name: TECHNI-HIB 377

---

Section: 04 FIRE AND EXPLOSION HAZARD DATA CONTINUED

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point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Containers may explode from internal pressure if confined to fire. Keep containers cool. Keep unnecessary people away.

---

Section: 05 HEALTH HAZARD DATA

---

Effects of Overexposure

Eye Contact: may cause moderate irritation, including burning sensation, tearing, redness or swelling.

Skin Irritation: may produce skin irritation.

Skin Absorption: exposure to this material can result in absorption through skin causing health hazard.

Inhalation: overexposure may cause coughing, shortness of breath, dizziness, intoxication, collapse, unconsciousness, cardiac depression, optic complications and death.

Ingestion: may cause acidosis, narcosis, nausea, ocular toxicity ranging from diminished visual capacity to complete blindness, and death.

Emergency and First Aid Procedures

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

---

Section: 06 REACTIVITY DATA

---

Stable (Y=Yes/N=No): Y.

Stability -- Conditions to Avoid

None known.

Product Name:      TECHNI-HIB 377

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Section: 06 REACTIVITY DATACONTINUED  
-----Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents, strong alkalies, and strong mineral acids.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce smoke, carbon monoxide and carbon dioxide.

Hazardous Polymerization May Occur (Y=Yes/N=No): NHazardous Polymerization -- Conditions to Avoid

None

-----  
Section: 07 SPILL OR LEAK PROCEDURESSteps to be Taken if Material is Released or Spilled

Eliminate sources of ignition. Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled materials with sand or earth. Recover undamaged and minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S.EPA and/or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271).

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Section: 08 SPECIAL PROTECTIVE INFORMATIONRespiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure organic vapor type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation

The use of mechanical dilution ventilation is recommended whenever this product is used in confined spaces, is heated

Product Name:      TECHNI-HIB 377

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Section: 08 SPECIAL PROTECTIVE INFORMATION    CONTINUED

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above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

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Section: 09 SPECIAL PRECAUTIONS

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Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

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. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.

FOR INDUSTRIAL USE ONLY

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Section: 10 REGULATORY INFORMATION

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Superfund Amendments and Reauthorization Act Of 1986(SARA) Title III

Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory

Product Name:      TECHNI-HIB 377

Section: 10 REGULATORY INFORMATION

CONTINUED

requirements.

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
**NONE**			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

<input checked="" type="checkbox"/> Acute Health Hazard	<input type="checkbox"/> Sudden Release of Pressure	<input checked="" type="checkbox"/> Fire
<input checked="" type="checkbox"/> Chronic Health Hazard	<input type="checkbox"/> Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
methanol	00067-56-1	< 20%

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

<u>Component Name</u>	<u>CAS #</u>	<u>CERCLA RQ</u>
methanol	00067-56-1	5000

OSHA Exposure Limits

Component Name  
methanol

TWA ppm: 200.0 TWA MG/M3: 260.0 STEL ppm: 250.0 STEL MG/M3: 310.0 Skin: x

National Fire Protection Agency

<u>2</u> Health	<u>3</u> Fire
<u>0</u> Reactive	_____ Other

Department of Transportation Shipping Information

Proper Shipping Name: Flammable liquids, n.o.s.



AGRI-EMPRESA

KCL

AGRI-EMPRESA

*Spud*

# Material Safety Data Sheet

For more detailed information on the hazards of this product, contact Regulations Compliance Department or Medical Services Department at the address above. Technical Information Bulletin is also available. For emergency information, telephone (405) 270-1313 any time.

## PRODUCT IDENTIFICATION

Brand Name ..... potassium chloride  
 ..... muriate of potash  
 Chemical Name ..... Potassium chloride  
 Common Name ..... Muriate of potash  
 Formula ..... KCl  
 DOT Proper  
 Shipping Name ..... Not applicable  
 DOT Hazard  
 Class ..... Not applicable  
 DOT I.D. Number ..... Not applicable  
 Reportable Quantity (RQ) . . . Not applicable  
 CAS Number ..... 7447-40-7

## PHYSICAL AND CHEMICAL PROPERTIES

State ..... Granular solid  
 Melting Point C ..... 776  
 Boiling Point C ..... 1411  
 Color ..... White/brownish  
 Odor ..... None  
 Bulk Density, lb/cu. ft ..... 67  
 Weight Per Gallon ..... Not applicable  
 Specific Gravity @ 20C ..... 2  
 Water Solubility, % By Wt. @ 20C . 25.5  
 Flash Point And Method ..... Not applicable  
 pH ..... Not applicable

## HAZARDOUS INGREDIENTS

Chemical Name	Common Name	CAS Number	Hazard
Potassium chloride	Muriate of potash	7447-40-7	Irritant to the eyes, skin and gastrointestinal tract.

## PHYSICAL HAZARD INFORMATION

Explosive: No                      Upper Explosive Limit: Not applicable                      Lower Explosive Limit: Not applicable  
 Pyrophoric: No  
 Flammable: No                      Flammability Class: Not applicable  
 Combustible: No                      Organic Peroxide: No  
 Oxidizer: No                      Compressed Gas: No  
 Reactivity: No

Incompatibilities: Brominetrifluoride, potassium permanganate and sulfuric acid.

Hazardous Decomposition: None.

Conditions To Avoid: Contact with incompatible materials.

KCL

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**EMERGENCY PROCEDURES**

**Fire:** This product is not flammable and does not support combustion. Use fire extinguishing media suitable for surrounding fire.

**Spill or Leak:** Shovel, and sweep up into container for later disposal. Spills into water should be diluted and dispersed with large volume of water.

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**FIRST AID PROCEDURES**

**Ingestion:** If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician.

**Inhalation:** If inhaled, remove to fresh air.

**Skin Contact:** Flush with water and then wash with soap or mild detergent and water.

**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes. Call a physician.

**Note To Physician:** Chemical of exposure is potassium chloride.

Reported As A Potential Carcinogen

Not Applicable

National Toxicology Program

Or Carcinogen

OSHA

International Agency For Research On Cancer

PRECAUTIONS FOR SAFE HANDLING AND USE

Avoid contact with eyes.  
Wash thoroughly after handling.  
Store in a dry place.

SPILL AND LEAK PROCEDURES

Soil Release: Shovel and sweep up into a container. Reclaim for salvage value or wash to in industrial sewer as permitted by federal, state and local regulations.

Water Spill: Dilute and disperse with water jets, propellers or similar devices.

Air Spill: Let settle. Treat as appropriate for Soil Release or Water Spill.

Occupational Spill: Shovel and sweep up into a container. Reclaim for salvage value or dispose of in accordance with federal, state and local regulations.

RCRA Waste Number: Not applicable.

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation: Use local exhaust or general dilution ventilation techniques.

Respirator: Use NIOSH/MSHA approved dust type respirator.

Eye Protection: Wear safety goggles or safety glasses.

Gloves: No special requirements. Ordinary work gloves.

Clothing: No special requirements. Wear easily washable clothing. Change daily. Wash clothing before reuse.

# MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT NAME:	TRETOLITE (R) SRW0029C
IDENTIFICATION NUMBER:	SRW0029C
PRODUCT USE/CLASS:	Scale Remover
MANUFACTURER/SUPPLIER	EMERGENCY TELEPHONE NUMBERS (24 HOUR):
Petrolite Corporation 369 Marshall Ave St. Louis, Mo 63119-1897  CUSTOMER CARE: 1-800-872-1916 8:00am-5:00pm Monday-Friday (CST)	Chemtrec: 800-424-9300 Canutec: 613-966-6666
Preparer: Gary Morris	Prepare Date: 12/22/94
Title: Product Manager	Supercedes Date: 03/11/94
	Date Printed: 08/16/95

2. COMPOSITION/INFORMATION ON INGREDIENTS - continued						
ITEM	HAZARDOUS INGREDIENTS			CAS #	WT/WT %	
01	Glycolic acid			Trade Secret 7664-38-2	10-30	
02	Phosphoric acid				30-60	
	* Solvent Component					
ITEM	TLV-TWA	ACGIH TLV-STEL	PEL-TWA	OSHA PEL-CEIL	COMP. NY TLV-TWA	SKIN
01	N.E.	N.E.	N.E.	N.E.	N.E.	N
02	1mg/m3	3mg/m3	1mg/m3	N.E.	N.E.	N

This product contains the following NON-HAZARDOUS COMPONENTS:

CHEMICAL NAME	CAS NUMBER
Water	7732-18-5

<b>Product Name:</b>	TRETOLITE (R) SRW0029C	<b>Date Prepared:</b>	12/22/94
<b>Product Number:</b>	SRW0029C	<b>Supersedes:</b>	03/11/94

## 2. COMPOSITION/INFORMATION ON INGREDIENTS - continued

(See Section 16 for abbreviation legend)

## SECTION 3 - HAZARDS IDENTIFICATION

### \*\*\* EMERGENCY OVERVIEW \*\*\*:

Appearance: Yellow liquid

Odor: Pungent

Corrosive to skin and eyes. Irritating to the respiratory tract.

### EFFECTS OF EXPOSURE - EYE CONTACT:

Corrosive to the eyes! Direct contact with eyes will cause severe irritation and may lead to burns and permanent eye damage. Mists and vapors may cause moderate to severe eye irritation.

### EFFECTS OF EXPOSURE - SKIN CONTACT:

Contact with skin can produce severe irritation or burns with possible in-depth injury.

### EFFECTS OF EXPOSURE - INHALATION:

Inhalation may cause intense irritation to the respiratory tract (nose, mouth, mucous membranes). Prolonged, repeated, or high exposures may cause chemical pneumonitis and, in extreme cases, pulmonary edema.

### EFFECTS OF EXPOSURE - INGESTION:

Harmful if swallowed. Corrosive! May cause severe irritation or burns to the mouth and the gastrointestinal tract. In extreme cases may cause liver and kidney damage.

### EFFECTS OF EXPOSURE - CHRONIC EFFECTS:

No known information.

### EFFECTS OF EXPOSURE - CARCINOGENICITY:

No known information.

PRIMARY ROUTE(S) OF ENTRY: Skin Contact, Inhalation, Eye Contact

## SECTION 4 - FIRST AID MEASURES

### EYES:

If material gets into eyes, flush with water immediately for 15 minutes. Consult a physician.

### SKIN:

In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. If rash, irritation or burns develop, consult a physician. Launder clothing before reuse.

<b>Product Name:</b>	TRETOLITE (R) SRW0029C	<b>Date Prepared:</b>	12/22/94
<b>Product Number:</b>	SRW0029C	<b>Supersedes:</b>	03/11/94

#### SECTION 4 - FIRST AID MEASURES - continued

##### INHALATION:

If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe.

##### INGESTION:

If ingested, DO NOT induce vomiting. If conscious, drink 8-10 oz. of water promptly. Call a physician immediately. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock and convulsion may be necessary.

#### SECTION 5 - FIRE-FIGHTING MEASURES

<b>Flashpoint and Method:</b>	> 200 F (> 93 C) SFCC ASTM D-3828		
<b>Flammable Limits:</b>	<b>LEL:</b>	N.D.	<b>UEL:</b> N.D.
<b>Autoignition Temperature:</b>	N.D.		

**EXTINGUISHING MEDIA:** Alcohol Foam, CO<sub>2</sub>, Dry Chemical, Foam, Water Fog

##### HAZARDOUS COMBUSTION PRODUCTS:

Oxides of phosphorous. Oxides of carbon.

##### FIRE-FIGHTING PROCEDURES AND EQUIPMENT:

Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Non-flammable. Cool fire-exposed containers using water spray.

##### UNUSUAL FIRE AND EXPLOSION HAZARDS:

No known information.

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES

##### SMALL SPILLS:

Use personal protective equipment as necessary. Absorb with suitable chemical absorbent. Dispose of material in accordance with all federal, state and local regulations.

##### LARGE SPILLS:

Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Absorb residue with suitable chemical absorbent. Dispose of material in accordance with all federal, state and local regulations. Use personal protective equipment as necessary.

##### OTHER:

No known information.

<b>Product Name:</b>	TRETOLITE (R) SRW0029C	<b>Date Prepared:</b>	12/22/94
<b>Product Number:</b>	SRW0029C	<b>Supersedes:</b>	03/11/94

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES - continued

#### SECTION 7 - HANDLING AND STORAGE

##### HANDLING AND STORAGE:

Avoid breathing vapor and contact with eyes, skin and clothing. Keep container closed when not in use. Hazardous residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning. Use in well ventilated area.

#### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

##### RESPIRATORY PROTECTION:

When concentrations exceed the exposure limits specified, use of a NIOSH approved full facepiece organic vapor/acid gas cartridge respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a full facepiece supplied air respirator or a Self Contained Breathing Apparatus (SCBA) may be necessary.

##### PERSONAL PROTECTION:

Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing. Safety shower and eyewash station should be located in immediate work area.

##### ENGINEERING CONTROLS:

Local ventilation of emission sources may be necessary to maintain ambient concentrations below recommended exposure limits.

Product Name:	TRETOLITE (R) SRW0029C	Date Prepared:	12/22/94
Product Number:	SRW0029C	Supersedes:	03/11/94

### SECTION 9 - TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

Solubility in Water:	Soluble
Density @ 60 F (16 C):	10.49 lb/USgal
Specific Gravity @ 60 F (16 C):	1.26
Flash Point SFCC ASTM D-3828:	> 200 F (> 93 C)
Boiling Range ASTM D-86:	N.D.
Vapor Pressure:	N.D.
Pour Point ASTM D-97:	-25 F
pH @ 5.0% in 75/25 Isopropanol/Water:	N.D.
Viscosity ASTM D-445:	
@ 60 F ( 16 C)	41 SUS
@ 30 F (- 1 C)	53 SUS
@ 0 F (-18 C)	91 SUS
Freezing Point:	N.D.
Odor Threshold:	N.D.
Evaporation Rate:	Is slower than Ether
Vapor Density:	Is heavier than air
Coefficient of Water/Oil Distribution:	N.D.
Physical State:	N.D.

(See Section 16 for abbreviation legend)

### SECTION 10 - STABILITY AND REACTIVITY

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

**INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:**

Keep away from strong oxidizing agents. Contains a strong mineral acid which is highly reactive with metals, metal oxides, hydroxides, amines, carbonate or other alkaline materials. May react with organic chemicals. This material is highly corrosive and may react with metals to produce flammable hydrogen gas.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

No known information.

Product Name:	TRETOLITE (R) SRW0029C	Date Prepared:	12/22/94
Product Number:	SRW0029C	Supersedes:	03/11/94

### SECTION 11 - TOXICOLOGICAL INFORMATION

#### PRODUCT TOXICOLOGICAL INFORMATION

No known information

**EYE IRRITATION SCORE(S):**

No known information.

**SKIN IRRITATION SCORE(S):**

No known information.

**OTHER:**

No known information.

#### COMPONENT TOXICOLOGICAL INFORMATION:

	<u>LD50 Dermal</u>	<u>LD50 Oral</u>	<u>LC50 Inhalation</u>
Glycolic acid	N.D.	1.95 g/kg-R	7.7 mg/l/4H-R
Phosphoric acid	2740 mg/kg-RB	1530 mg/kg-R	N.D.
Water	N.D.	N.D.	N.D.

**LEGEND:**

- R = Rat
- RB = Rabbit
- M = Mouse
- GP = Guinea Pig

### SECTION 12 - ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:**

Petrolite has ECOTOX\* Reports for many products. Please call for more information.

### SECTION 13 - DISPOSAL INFORMATION

**DISPOSAL INFORMATION:**

Dispose of material in accordance with applicable federal, state and local regulations.

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<b>Product Number:</b>	SRW0029C	<b>Supersedes:</b>	03/11/94

**SECTION 14 - TRANSPORTATION INFORMATION**

**U.S. DEPARTMENT OF TRANSPORTATION (D.O.T.) INFORMATION:**

Proper Shipping Name: Corrosive liquid, n.o.s.  
 Technical Description: (contains Phosphoric and Glycolic Acid)  
 Hazard Classes: Primary: 8 Secondary: N.A. Tertiary: N.A.  
 UN/NA Number: UN1760 Packing Group: III D.O.T. Emergency Response Guide: 060  
 Marine Pollutant: N.A.

**INTERNATIONAL MARITIME ORGANIZATION (I.M.O.) INFORMATION:**

Proper Shipping Name: Corrosive liquid, n.o.s.  
 Technical Description: (contains Phosphoric and Glycolic Acid)  
 Hazard Classes: Primary: 8 Secondary: N.A. Tertiary: N.A.  
 UN/NA Number: UN1760 Packing Group: III IMDG Code Page: 8147  
 EMS Number: 8-15  
 MFAG Table Number 1: 760 MFAG Table Number 2: 700  
 Marine Pollutant: N.A.  
 Schedule 'B' Number: N.D.

**CANADIAN TRANSPORTATION OF DANGEROUS GOODS (T.D.G.) INFORMATION:**

Proper Shipping Name: Corrosive liquid, n.o.s.  
 Technical Description: (contains Phosphoric and Glycolic Acid)  
 Hazard Classes: Primary: 8 Secondary: 9.2 Tertiary: N.A.  
 UN/NA Number: UN1760 Packing Group: III

Product Name:	TRETOLITE (R) SRW0029C	Date Prepared:	12/22/94
Product Number:	SRW0029C	Supersedes:	03/11/94

### SECTION 14 - TRANSPORTATION INFORMATION - continued

#### MISC. SHIPPING INFORMATION:

##### Petrolite Label Codes:

##### D.O.T.:

Warning Label: 008 Corrosive Liquid - logo  
 Shipping Sticker: 735 Corrosive liquid, n.o.s.(contains Phosphoric and Glycolic Acid) UN1760

##### I.M.O.:

Warning Label: 008 Corrosive Liquid - logo  
 Shipping Sticker: 735 Corrosive liquid, n.o.s.(contains Phosphoric and Glycolic Acid) UN1760

##### T.D.G.:

Warning Label: N.A.  
 Shipping Sticker: N.A.

##### Other Labels:

Add-on Label1: N.A.  
 Add-on Label2: N.A.  
 Add-on Label3: N.A.  
 Add-on Label4: N.A.  
 Add-on Label5: N.A.  
 Add-on Label6: N.A.

NFPA Label: 817 NFPA Label Health=3 Flammability=1 Reactivity=0 Special=COR

MGD Label: A

##### National Motor Freight

Class Code: 050093 Boiler Cleansing, Scale Preventing or Removing Compounds, Liquid LTL 55  
 TL 35

### SECTION 15 - REGULATORY INFORMATION

#### CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES:

The Petrolite product contains the following listed hazardous substances subject to the release reporting requirements of the United States Environmental Protection Agency (EPA) regulation, 40 CFR Part 302, pursuant to the Comprehensive Environment Response, Compensation and Liability Act of 1980 (CERCLA). The Reportable Quantities (RQs) are presented in pounds of listed hazardous substance. The RQ is also calculated in gallons of equivalent product.

Product Name:	TRETOLITE (R) SRW0029C	Date Prepared:	12/22/94
Product Number:	SRW0029C	Supersedes:	03/11/94

**SECTION 15 - REGULATORY INFORMATION - continued**

Chemical Name	CAS Number	RQ #	RQ, GAL
Phosphoric acid	7664-38-2	5,000	15,625

**SARA EXTREMELY HAZARDOUS SUBSTANCES and REPORTABLE QUANTITIES:**

This Petrolite product contains the following listed Extremely Hazardous Substances (EHS's) subject to the release reporting requirements of the United States Environment Protection Agency (EPA) regulation 40 CFR Part 304 of the Superfund Amendments and Reauthorization Act of 1986 (SARA). The Reportable Quantities (RQ's) and the Threshold Planning Quantities (TPQ's) are calculated in gallons of equivalent product. Each entry corresponds to the RQ or TPQ, in pounds, for each listed EHS. No data is given for EHS's present in concentrations below applicable De Minimis levels.

Chemical Name	CAS Number	RQ #	RQ GAL	TPQ#	TPQ GAL
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No SARA Extremely Hazardous materials present in this product.

**SARA 311/312:**

This Petrolite product has been assigned to the following hazard and physical categories subject to the reporting requirements of EPA regulation 40 CFR Part 370, pursuant to Sections 311 and 312 of SARA.

Hazard: Immediate Health

Physical: Liquid, Mixture

**SARA SECTION 313:**

This Petrolite product contains the following listed toxic substances subject to the reporting requirements of EPA regulation 40 CFR Part 372 pursuant to Section 313 of SARA.

Chemical Name	CAS Number	Wt/Wt %
Phosphoric acid	7664-38-2	32 %

**NEW JERSEY RIGHT-TO-KNOW:**

The following materials are non-hazardous, but are among the top five components in this product:

Chemical Name	CAS Number
Water	7732-18-5

**PENNSYLVANIA RIGHT-TO-KNOW:**

The following non-hazardous ingredients are present in the product at greater than 3%:

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**SECTION 15 - REGULATORY INFORMATION - continued**

Chemical Name	CAS Number
Water	7732-18-5

**CALIFORNIA AB-2588:**

This Petrolite product contains the following listed air toxic substances subject to the reporting requirements of California Code of Regulations, Title 17 and 26, Subchapter 7.6 pursuant to the Air Toxics "Hot Spots" Information and Assessment Act of 1987.

Chemical Name	CAS Number	Wt/Wt %
Phosphoric acid	7664-30-2	32 %

**U.S. TOXIC SUBSTANCES CONTROL ACT:**

This product or its components, if a mixture, are listed on the Toxic Substance Control Act (TSCA) inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA Section 12(b) if exported from the United States:

Chemical Name	CAS Number
---------------	------------

No TSCA 12(b) chemicals are present in the product.

**INTERNATIONAL REGULATIONS:**

**CANADIAN WHMIS:**

This Material Safety Data Sheet has been prepared in compliance with the Controlled Product Regulations

If the Canadian Hazardous Products Act and/or the Controlled Product Regulations apply to the chemical product listed in Section 1 of the Material Safety Data Sheet, the disclaimer contained in Section 16 of this Material Safety Data Sheet, as it relates to information required to be disclosed by such law and/or regulations, is amended to the extent necessary to conform to such law and/or regulations.

**CANADIAN WHMIS CLASS: E**

**CANADIAN DOMESTIC SUBSTANCE LIST (DSL):**

This product, or one or more of its components, if a mixture, are listed on the Canadian Domestic Substances List (DSL) except if the product or any of its components were first manufactured or imported into Canada between January 1, 1987 and July 1, 1994, in which case, said "transitional substances" have been reported for the DSL under New Substances Notification (NSN) Procedures.

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<b>Product Number:</b>	SRW0029C	<b>Supersedes:</b>	03/11/94

**SECTION 16 - OTHER INFORMATION**

**CALIFORNIA PROPOSITION 65:**  
No known information.

**NFPA:**

Health:	3
Flammability:	1
Reactivity:	0
Special:	COR

**LEGEND:** N.A. - Not Applicable,  
N.E. - Not Established,  
N.D. - Not Determined

**REVISION SUMMARIES:**

File 837

The information and recommendations contained hereon are believed to be accurate and reliable as of the date issued. However, we do not warrant their accuracy or reliability.

We only warrant to you, but no other persons, that the product referenced herein shall conform to our quality assurance specifications for the product on the date of shipment to you. WE EXPRESSLY DISCLAIM ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any technical advice, information or recommendation given to you is given gratis without any warranty whatsoever as to the advice, information or recommendation given or results obtained.

You shall assume all risks and shall be solely responsible for the results obtained from the storage, handling or use of the product and any information or recommendation regarding the product, whether alone or in combination with other substances.

UNDER NO CIRCUMSTANCES SHALL WE BE LIABLE FOR ANY ECONOMIC, CONSEQUENTIAL (INCLUDING LOST PROFITS OR SAVINGS) OR INCIDENTAL DAMAGES, EVEN IF WE ARE INFORMED OF THEIR POSSIBILITY, EXEMPLARY OR PUNITIVE DAMAGES, REGARDLESS OF THE FORM OR ACTION, WHETHER IN CONTRACT OR TORT, INCLUDING OUR SOLE OR JOINT NEGLIGENCE AND STRICT LIABILITY.

MATERIAL SAFETY DATA SHEET  
POWER KLEEN 1

1 HMIS HEALTH  
0 HMIS FLAMMABILITY  
0 HMIS REACTIVITY  
E HMIS PERSONAL PROTECTION

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME..... ADAMS CHEMICAL & EQUIPMENT CO., INC.  
PHONE NUMBER..... 918-337-8942  
EMERGENCY PHONE NUMBER... 1-800-335-5053  
EFFECTIVE DATE..... SEPTEMBER, 1990  
REVISED DATE..... JUNE 1992  
TRADE NAME..... POWER KLEEN 1  
CHEMICAL FAMILY..... BIODEGRADABLE INDUSTRIAL DETERGENT  
CAS NUMBER..... NONE  
CHEMICAL FORMULA..... BLEND

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	%	TLV (UNITS)	PROD. CAS #
SODIUM TRIPOLY PHOSPHATE	CONF.	NONE LISTED	7732-78-4

TOXIC SUBSTANCES CONTROL ACT 40 CFR 710. Sources of the raw materials used in this product assure that all chemical ingredients included are in compliance with section 8(b), or are otherwise in compliance with the toxic substances control act.

SECTION III - PHYSICAL DATA

BOILING POINT(F)..... NOT APPLICABLE  
FREEZING POINT (F)..... NOT APPLICABLE  
VAPOR PRESSURE (mm Hg)... NOT APPLICABLE  
VAPOR DENSITY (AIR 1)... NOT APPLICABLE  
SOLUBILITY IN WATER..... COMPLETE  
APPEARANCE/ODOR..... YELLOW GRANULAR POWDER  
SPECIFIC GRAVITY (H2O 1). NOT APPLICABLE  
PH..... 12.8 DISSOLVED IN WATER @ OZ. PER GALLON

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT..... NOT FLAMMABLE  
LOWER FLAME LIMIT..... NOT APPLICABLE  
UPPER FLAME LIMIT..... NOT APPLICABLE  
EXTINGUISHING MEDIA..... NOT APPLICABLE  
UNUSUAL FIRE HAZARD..... NONE

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE.... 5MG/MS NUISANCE DUST

MATERIAL SAFETY DATA SHEET  
POWER KLEEN 1

ROUTES OF ENTRY	INHALATION? IRRITANT	SKIN? CORROSIVE	INGESTION? CORROSIVE
HEALTH HAZARDS.....	ACUTE, DUST MAY BE IRRITATING TO SKIN, EYES, OR MUCOUS MEMBRANES.		
GENOTOXICITY.....	NO	IARC MONOGRAPHY? NO	OSHA REGULATED? NO
OVER EXPOSURE EFFECTS....	SKIN IRRITATION DEVELOPS SLOWLY AFTER CONTACT. EYE IRRITATION DEVELOPS IMMEDIATELY UPON CONTACT.		
FIRST AID PROCEDURES.....	IN CASE OF EYE CONTACT, FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION. FOR SKIN, WASH THOROUGHLY WITH SOAP AND WATER. IF SWALLOWED, INDUCE VOMITING IMMEDIATELY BY GIVING TWO GLASSES OF WATER AND STICKING FINGER DOWN THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.		

SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY..... STABLE  
CONDITIONS TO AVOID..... NONE  
INCOMPATIBLE MATERIALS... OXIDIZERS OR OXIDIZING MATERIALS.  
COMPOSITION PRODUCTS... FROM FIRE, SMOKE, CARBON DIOXIDE, CARBON MONOXIDE, & OXIDES OF NITROGEN.  
HAZARDOUS POLYMERIZATION. WILL NOT OCCUR  
POLYMERIZATION AVOID..... NONE KNOWN

SECTION VII - SPILL OR LEAK PROCEDURE

FOR SPILL..... IN CASE OF SPILLAGE, ABSORB WITH INERT MATERIAL AND DISPOSE OF IN ACCORDANCE WITH APPLICABLE REGULATIONS.  
WASTE DISPOSAL METHOD.... HAZARDOUS WASTE. FOLLOW FEDERAL AND STATE REGULATIONS.

SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION... NIOSH APPROVED DUST AND PARTICULATE MASK  
VENTILATION..... RECOMMENDED  
MECHANICAL EXHAUST..... NOT NORMALLY NEEDED  
LOCAL EXHAUST..... NOT NORMALLY NEEDED  
PROTECTIVE GLOVES..... WEAR IMPERVIOUS GLOVES  
EYE PROTECTION..... GOGGLES OR FACE SHIELD  
OTHER PROTECTIVE EQUIPMENT..... NONE

SECTION IX - SPECIAL HANDLING

MATERIAL SAFETY DATA SHEET  
POWER KLEEN 1

HAZARDING AND STORAGE..... WEAR IMPERVIOUS GLOVES, AND USE GLOVES ON FACE SHOULD  
IF CONTAINER IS OPEN.  
PRECAUTIONARY MEASURES... AVOID CONTACT WITH SKIN, EYES, AND CLOTHING. AFTER  
HANDLING THIS PRODUCT, WASH HANDS BEFORE EATING,  
DRINKING, OR SMOKING. IF CONTACT OCCURS, REMOVE  
CONTAMINATED CLOTHING. IF NEEDED, TAKE IMMEDIATE  
ACTION SHOWN IN SECTION V.  
DOT HAZARD CLASS..... CORROSIVE, 8  
DOT SHIPPING NAME..... CLEANING COMPOUND, CORROSIVE GRANULAR, N.O.S.,  
(CONTAINS SODIUM METASILICATE), 8, UN1759, PGII,  
POWER KLEEN 1  
DOT REPORTABLE QUANTITY  
(RQ)..... 10,000 POUNDS BASED ON SODIUM TRIPOLY PHOSPHATE  
UN NUMBER..... UN 1759  
NA NUMBER..... NO. APPLICABLE  
PACKAGING SIZE..... VARIED  
DOT LABEL REQUIRED..... CORROSIVE

SECTION X - REGULATORY

EPA ACUTE..... YES  
EPA CHRONIC..... NO  
EPA IGNITABILITY..... NO  
EPA REACTIVITY..... NO  
A SUDDEN RELEASE OF  
PRESSURE..... NO  
CERCLA RQ VALUE..... 10,000 POUNDS BASED ON SODIUM TRIPOLY PHOSPHATE  
SARA TPO..... NONE  
SARA RQ..... NONE  
SARA SECTION 313..... NOT LISTED  
EPA HAZARD WASTE #..... D002 CORROSIVE  
CLEAN AIR ACT..... NOT LISTED  
CLEAN WATER ACT..... LISTED IN SEC 311

FOOT NOTES NA - NO APPLICABLE ND - NOT DETERMINED

PREPARED BY..... S.I.S., FORT WORTH, TEXAS (817) 500-4631

THIS PRODUCT'S SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN  
ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE  
INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED  
TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED BY THE COMPANY IN  
THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF  
THE USER, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE  
OF THIS PRODUCT. SUCH CONDITIONS SHOULD COMPLY WITH ALL FEDERAL REGULATIONS  
CONCERNING THE PRODUCT.

Exxon



NALCO/~~EXXON~~ ENERGY CHEMICALS, L. P.

P.O. Box 87, Sugar Land, Tx 77487 281-263-7000

PAGE: 1  
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SURFLO S568

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**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

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PRODUCT NAME: SURFLO S568

CHEMICAL NAME:

Not Applicable: Blend

CHEMICAL FAMILY:

Surfactant

PRODUCT DESCRIPTION:

Clear Light Yellow Liquid

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CONTACT ADDRESS:

NALCO/EXXON ENERGY CHEMICALS, L.P.  
P.O. BOX 87, Sugar Land, Texas 77487-0087

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** EMERGENCY TELEPHONE NUMBERS: (24 Hours)	**
** CHEMTREC (800) 424-9300	**
** NALCO/EXXON ENERGY CHEMICALS (800) IM ALERT	**

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NON EMERGENCY TELEPHONE NUMBERS : (8am-5pm M-F)

FOR HEALTH AND SAFETY INFORMATION CALL : (713) 263-7000

FOR GENERAL PRODUCT INFORMATION CALL : (713) 263-7000

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**SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS**

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The composition of this mixture may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse.

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Continues on page 2



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This product is hazardous as defined in 29 CFR1910.1200, based on the following compositional information:

OSHA HAZARD	COMPONENT
Flammable Liquid	Methyl Alcohol
Eye and Skin Irritant	Methyl Alcohol, Aryl Sulfonate Salt
Toxic-Systemic via In- gestion, Inhalation, Dermal	Methyl Alcohol
Vapors Irritant to Eye and Respiratory Tract	Methyl Alcohol
PEL/TLV	Methyl Alcohol

=====  
**SECTION 3. HAZARDS IDENTIFICATION**

**POTENTIAL HEALTH EFFECTS**

**EYE CONTACT:**

Severely irritating. If not removed promptly, will injure eye tissue, which may result in permanent damage.

**SKIN CONTACT:**

Severely irritating; may cause permanent skin damage. Methyl alcohol may be absorbed through the skin which can contribute to damage of the optic nerve resulting in permanent visual changes, loss of vision or total blindness.

**INHALATION:**

Vapor concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects.

This product contains methyl alcohol. Vapor inhalation and/or skin absorption can cause central nervous system effects and blindness.

**INGESTION:**

The main hazard of methyl alcohol arises from its misuse as a drinking substitute for ethyl alcohol. As little as 15 ml (1/2 oz.) of 40 % methyl alcohol has caused death. Sublethal doses of methyl alcohol may damage the optic nerve which can result in permanent visual changes, including blindness.

=====  
**SECTION 4. FIRST AID MEASURES**

**EYE CONTACT:**

Immediately flush eyes with large amounts of water for at least 15 minutes. Get prompt medical attention.

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**SKIN CONTACT:**

Flush with large amounts of water; use soap if available.  
Remove grossly contaminated clothing, including shoes, and launder before reuse.  
If irritation persists, seek medical attention.

**INHALATION:**

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

**INGESTION:**

If swallowed, and INDIVIDUAL IS CONSCIOUS, induce vomiting. Get prompt medical attention. DO NOT attempt to give anything by mouth to an unconscious person.

**SECTION 5. FIRE FIGHTING PROCEDURES**

---

FLASHPOINT: 94 Deg F. METHOD: TCC

FLAMMABLE LIMITS: Not available

AUTOIGNITION TEMPERATURE: Not available

**GENERAL HAZARD**

Flammable Liquid, can release vapors that form flammable mixtures at temperatures at or above the flashpoint.

Toxic gases will form upon combustion.

"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

**FIRE FIGHTING**

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors.

Use alcohol type foam or dry chemical to extinguish fire.

Respiratory and eye protection required for fire fighting personnel.

**DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS**

Smoke, fumes, carbon monoxide, carbon dioxide.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**LAND SPILL**

Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 7) notify the National Response Center.

Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust.

Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

**WATER SPILL**

Eliminate sources of ignition. Warn occupants and shipping in surrounding and downwind areas of fire and explosion hazard and request all to stay clear.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

**SECTION 7. STORAGE AND HANDLING**

**ELECTROSTATIC ACCUMULATION HAZARD:**

Unknown, use proper grounding procedure

**STORAGE TEMPERATURE, DEG F:**

Ambient

**LOADING/UNLOADING TEMPERATURE, DEG F:**

Ambient

**STORAGE/TRANSPORT PRESSURE, MMHG:**

Atmospheric

**LOADING/UNLOADING VISCOSITY, CST:**

Not available

**STORAGE AND HANDLING:**

Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Do NOT handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight.

It is not known if this material is a static accumulator. Therefore,

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use proper grounding procedures.  
Do NOT pressurize, cut, heat, or weld containers. Empty product  
containers may contain product residue. Do NOT reuse empty containers  
without commercial cleaning or reconditioning.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE CONTROLS**

The use of mechanical dilution ventilation is recommended whenever this  
product is used in a confined space, is heated above ambient temperatures,  
or is agitated.

Use explosion-proof ventilation equipment.

**PERSONAL PROTECTION**

For open systems where contact is likely, wear chemical resistant gloves,  
rubber boots, a chemical jacket, chemical goggles, and a face shield.  
Where contact may occur, wear long sleeves, chemical resistant gloves, and  
a face shield.

Where concentrations in air may exceed the limits given in this  
Section and engineering, work practice or other means of exposure  
reduction are not adequate, NIOSH/MSHA approved respirators may  
be necessary to prevent overexposure by inhalation.

**WORKPLACE EXPOSURE GUIDELINES**

OSHA REGULATION 29CFR1910.1000 REQUIRES THE FOLLOWING PERMISSIBLE  
EXPOSURE LIMITS:

A TWA of 200 ppm (260 mg/m<sup>3</sup>) and a STEL of 250 ppm (310 mg/m<sup>3</sup>)  
for Methyl Alcohol (skin).

The recommended permissible exposure levels indicated above reflect the  
levels revised by OSHA in 1989 or in subsequent regulatory activity.  
Although the 1989 levels have since been vacated by the 11th Circuit Court  
of Appeals, NALCO/EXXON recommends that the lower exposure levels be  
observed as reasonable worker protection.

THE ACGIH RECOMMENDS THE FOLLOWING THRESHOLD LIMIT VALUES:

a TWA of 200 ppm (262 mg/m<sup>3</sup>), and a STEL of 250 ppm (328 mg/m<sup>3</sup>) for  
Methyl Alcohol (skin).

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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SPECIFIC GRAVITY:	0.97 at 68
SOLUBILITY IN WATER, WT. % AT Deg F:	Soluble
VISCOSITY OF LIQUID, CST AT Deg F:	34 at 100 SUS
SP. GRAV. OF VAPOR, at 1 atm (Air=1):	Not available
FREEZING/MELTING POINT, Deg F:	-10 Pour Point
EVAPORATION RATE, n-Butyl Acetate=1:	Not available
BOILING POINT, Deg F:	Not available

---

**SECTION 10. STABILITY AND REACTIVITY**

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STABILITY:  
Stable

HAZARDOUS POLYMERIZATION:  
Will not occur

CONDITIONS TO AVOID INSTABILITY:  
None

MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:  
Strong Oxidizing Agents

HAZARDOUS DECOMPOSITION PRODUCTS:  
None

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**SECTION 11. TOXICOLOGY INFORMATION**

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PLEASE CALL THE NON-EMERGENCY TELEPHONE NUMBER ON  
PAGE 1 IF INFORMATION IS REQUIRED.

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**SECTION 12. ECOLOGICAL INFORMATION**

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PLEASE CALL THE NON-EMERGENCY TELEPHONE NUMBER ON  
PAGE 1 IF INFORMATION IS REQUIRED.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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PLEASE REFER TO SECTIONS 5, 6 AND 15 FOR DISPOSAL  
AND REGULATORY INFORMATION.

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**NALCO/EXXON ENERGY CHEMICALS, L. P.**

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SURFLO S568

**SECTION 14. TRANSPORT INFORMATION**

DEPARTMENT OF TRANSPORTATION (DOT):  
DOT SHIPPING DESCRIPTION: FLAMMABLE LIQUID, N.O.S., (METHANOL), 3, UN 1993,  
III

**SECTION 15. REGULATORY INFORMATION**

TSCA:  
Components of this product are listed on the TSCA Inventory.

CERCLA:  
If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and must be reported to the National Response Center by calling 800-424-8802.  
The reportable spill quantity of this product is 16,130 pounds.  
It contains:  
Methyl Alcohol.

SARA TITLE III:  
Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories:

Immediate health, Delayed Health, Fire.  
This information may be subject to the provisions of the Community Right-to-Know Reporting Requirements (40 CFR 370) if threshold quantity criteria are met.

This product contains the following Section 313 Reportable Ingredients:

COMPONENT	CAS #	MAX. %
Methyl Alcohol	67-56-1	31.0

**SECTION 16. OTHER INFORMATION**

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HAZARD RATING SYSTEMS:

This information is for people trained in:  
National Paint & Coatings Association's (NPCA)  
Hazardous Materials Identification System (HMIS)  
National Fire Protection Association (NFPA 704)  
Identification of the Fire Hazards of Materials

	NPCA-HMIS	NFPA 704	KEY
HEALTH	3	3	4 = Severe
FLAMMABILITY	3	3	3 = Serious
REACTIVITY	0	0	2 = Moderate
			1 = Slight
			0 = Minimal

REVISION SUMMARY:

Since September 11, 1993 this MSDS has been revised in Section(s):  
3

REFERENCE NUMBER:  
HDHA-A-73103

SUPERSEDES ISSUE DATE:  
September 11, 1993

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

LAST PAGE

MATERIAL SAFETY DATA SHEET

Printed 04-10-1995

Page 1

~~CONFIDENTIAL~~ EB-8100

Caution Code 2-2-0

"AQUANOX" is a registered trademark of Baker Performance Chemicals Incorporated  
MSDS ID: 6EB048F

SECTION I - IDENTITY

BAKER PERFORMANCE CHEMICALS, INC.  
A Baker Hughes Company  
3920 ESSEX LANE, P.O. BOX 27714  
HOUSTON, TX 77227-7714

EMERGENCY TELEPHONE NUMBERS:  
CHEMTREC: 1-800-424-9300  
800-231-3606  
TELEPHONE NUMBER FOR INFORMATION:  
713-599-7400

CHEMICAL NAME: Chemical Identity  
Is A Trade Secret

CHEMICAL FAMILY: Proprietary

SECTION II - REGULATORY CLASSIFICATION

ENVIRONMENTAL	OCCUPATIONAL	TRANSPORTATION
RQ= 252 Gallons (Naphthalene) TPQ= None	OSHA Non-Hazardous: NA  OSHA Hazardous: Yes X Acute X Chronic X Fire NA Pressure NA Reactive	Not Regulated: NA  Regulated: Yes Combustible Liquid, N.O.S., (Contains Xylene, Petroleum Distillate), Combustible, NA 1993, III
SARA S313: Yes Naphthalene <5% Xylene <3%		

The components of this product are listed on the TSCA inventory.

SECTION III - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENT	CAS #	PEL(OSHA)*			TLV(ACGIH)*		MFG* REC, TWA
		TWA	STEL	A/L	TWA	STEL	
Aromatic Hydrocarbon Mixture (Proprietary)	64741-67-9						
Petroleum Distillate (Proprietary)	64742-06-9						100
Naphthalene (<5%)	91-20-3	10	15		10	15	
Xylene (<3%)	1330-20-7	100	150		100	150	

\*ppm unless otherwise indicated; (C) denotes ceiling limit

SECTION IV - PHYSICAL & CHEMICAL PROPERTIES

Specific Gravity @60F: 0.951 (H2O=1)	pH: 5% of Product: 3.81
Density (lbs/gallon): 7.918	Viscosity (Method): Not Determined
Vapor Density (Air=1): > 1	Appearance and Odor: Clear, dark amber liquid with aromatic odor

Baker

## MATERIAL SAFETY DATA SHEET

Page 2

Printed 04-10-1995

**QUANOX<sup>(R)</sup> EB-8100**

Caution Code 2-2-0

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MSDS ID: 6E8048F

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 4 - SECTION IV - PHYSICAL & CHEMICAL PROPERTIES (continued)
 

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Solubility: Not Determined      Stability: Stable

Freezing Point: Not Determined      Pour Point: <-20F

Flash Point (Method): 154.4 (TCC)      Percent Organic Compounds: Not Determined

Boiling Point: Not Determined      Conditions to Avoid: Oxidizers; heat  
sparks, or open flame

Vapor Pressure: 0.406 psia (Reid)

Haz. Decomp. Prod: Carbon monoxide; oxides of nitrogen; oxides of sulfur

Hazardous Polymerization: Will not occur

**FIRE CONTROL PROCEDURES:** Use foam, dry chemical, CO<sub>2</sub>, 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:**  
Combustible Liquid. Can form explosive mixtures at temperatures at or above the flash point.  
Vapors can travel to source of ignition and flash back.  
Never use welding or cutting torch on or near drums, even when empty.  
Explosion may result.  
During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.  
Vapors may form explosive mixture with air.

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 5 - SECTION V - HEALTH HAZARDS
 

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**EFFECTS OF OVEREXPOSURE:**  
**INHALATION:** Prolonged or excessive inhalation may cause respiratory tract irritation.  
**EYE CONTACT:** Heavy exposure may cause irritation of the eyes.  
**SKIN CONTACT:** Prolonged or repeated exposure may cause skin irritation.  
**INGESTION:** Substance may be harmful if swallowed.

**OTHER INFORMATION:**

Prolonged or repeated exposure to this aromatic hydrocarbon mixture can cause central nervous system effects and irritation to the eyes, skin, and respiratory tract. Frequent skin contact can remove skin oils, resulting in dermatitis.

Naphthalene is found in this product as a contaminant of the solvent system. It has been reported that continued exposure to naphthalene in humans at concentrations above 15ppm may result in optical neuritis, corneal injuries as well as lens opacities. Overexposure to high concentration of vapors may cause liver and kidney damage.

**Naphthalene Toxicity Data:**

Orl - Rat LD50 = 490 mg/kg (RTECS)  
Skn - Rat LD50 = >2,500 mg/kg (RTECS)  
Skn - Rbt LD50 = >20 gm/kg (RTECS)

**Irritation****Open Draize Test**

Rabbit Skin: 495 mg open (time not given) - Reaction: Mild (RTECS)

**Standard Draize Test**

Rabbit Eye: 100 mg (time not given) - Reaction: Mild (RTECS)

Xylene (mixed isomers) is a component of this product. Xylene is an eye, nose, and throat irritant at approximately 460 ppm - effects begin to occur at concentrations as low as 200 ppm. Ingestion and/or vomiting of xylene present a risk of being aspirated into the lungs which can produce chemical pneumonitis and pulmonary edema. The major effect of acute exposure by

## MATERIAL SAFETY DATA SHEET

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**QUANOX<sub>(R)</sub> EB-8100****Caution Code 2-2-0**

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## 5 - SECTION V - HEALTH HAZARDS (continued)

inhalation or ingestion is central nervous system (CNS) depression. Symptoms include flushing, feeling of heat, tightness in the chest, blurred vision, giddiness, dizziness, loss of coordination and judgment, weakness, shivering, headache, difficulty in breathing, nausea, and vomiting. In extreme cases coma and death may occur. Other acute symptoms include gastrointestinal disturbances, cardiac irregularities, abdominal pain, and liver and kidney damage. Brief skin exposure may produce irritation and prolonged exposure may produce defatting dermatitis.

Long-term inhalation of xylene has produced hearing loss in laboratory animals (Pryor, GT et al (1987), J. Appl Toxicol, 7(1), pps 272-280). In laboratory animals, xylene has shown to be a teratogen and fetotoxin (Marks, TA, Ledoux, TA and Moore, JA (1982), J. Toxicol. Environ. Health, 9, pps 97-105 -- Shigeta, S et al (1983), Teratology, 28 p 22A -- Ungvary, G and Tatrai, E (1985), Arch. Toxicol, 8, pps 425-430).

**Animal Toxicity**

Rat Oral LD50 - 3,523 mg/kg (NTP TR 327)  
 Rat Inhalation LC50 - 5,000 ppm/4 Hr (RTECS)  
 Human Oral LDLo - 50 mg/Kg (RTECS)  
 Man Inhalation LCLo - 10,000 ppm/6 Hr (RTECS)

**Irritation - Standard Draize Test**

Rabbit Skin - 100% - Reaction Moderate (RTECS)  
 Rabbit Eye - 87 mg - Reaction Mild (RTECS)  
 Rabbit Eye - 5 mg/24 Hr - Reaction Severe (RTECS)

This product results from a reaction involving ethylene oxide (EtO). Therefore, it may contain residual amounts of EtO (less than 0.1%) which can accumulate in the container headspace and be released to the ambient environment when opened. This release of EtO would tend to increase when the product is agitated during unloading or blending operations. The Occupational Safety and Health Administration (OSHA) has set the worker exposure level for EtO at 1 ppm (8-hour time weighted average). The STEL is 5 ppm (15 minutes). This standard regulates occupational exposure to EtO from sources including products containing residual EtO. It is the responsibility of the employer to comply with OSHA EtO Standard (29 CFR 1910.1047). The International Agency for Research on Cancer (IARC) has rated EtO as a "Known human carcinogen (Group 1A); human evidence is limited; animal evidence is sufficient". The National Toxicological Program (NTP) has rated EtO as an "Anticipated Carcinogen". The OSHA action level TWA for EtO is 0.5 mg/m<sup>3</sup>. The OSHA excursion level is 5 ppm as averaged over a sampling period of 15 minutes.

This product results from a reaction involving propylene oxide (PO). Therefore, it may contain residual amounts (less than 0.1%) of un-reacted PO. The PO can accumulate in the container headspace, and can be release to the ambient environment when opened. This release of PO would tend to increase when the product is agitated during unloading or blending operations. The Occupational Safety and Health Administration (OSHA) has set the worker exposure level for PO at 20 ppm TWA (8-hour Time Weighted Average). The International Agency for Research on Cancer (IARC) has rated PO as a "Possible human carcinogen (Group 2B); human evidence is no adequate; animal evidence is sufficient". The National Toxicological Program (NTP) has rated PO as an "Anticipated Carcinogen". Reasonable precautions should be taken to reduce worker exposure to the lowest feasible level.

**TARGET ORGANS (29 CFR 1910.1200-APPENDIX A):**

Eye Hazard  
 Cutaneous Hazard (Skin)  
 Pulmonary Agent (Lungs)  
 Nephrotoxin (Kidney)  
 Hepatotoxin (Liver)

Printed 04-10-1995

MATERIAL SAFETY DATA SHEET

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**JUANOX<sub>(R)</sub> EB-8100**

Caution Code 2-2-0

"AQUANOX" is a registered trademark of Baker Performance Chemicals Incorporated  
 MSDS ID: 6EB048F

6 - SECTION VI - EMERGENCY & FIRST AID PROCEDURES

**EYE CONTACT:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**SKIN CONTACT:** Remove all contaminated clothing, flush skin with water for 10 minutes. Afterwards, wash the affected area with soap and water and then rinse.

**INGESTION:** Do not induce vomiting, seek medical attention immediately.

7 - SECTION VII - PROTECTIVE EQUIPMENT RECOMMENDATIONS

**VENTILATION:** The use of mechanical ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures, or is agitated. Where engineering controls are not feasible, assure use is in an area where there is natural air movement.

Under normal operating conditions, no excursions above the regulated (recommended) exposure levels should occur. However, if used at elevated temperatures, lower atmospheric pressure (high altitudes) or any other physical conditions that may increase the inhalation exposure, respiratory protective equipment as described below, should be worn. Also, due to individual susceptibility and sensitivity, before respirators are used, a full medical evaluation should be performed per 29 CFR 1910.134(b)(10).

RESPIRATORY	CHEMICAL RESISTANT APPAREL	EYE/FACE
X As Needed	X Gloves	X Goggles
Air Supplied (SCBA)	Clothing	Full Face Shield
X Air Purifying	Boots	
X Full Face Piece		
Half Face Piece		
X Cartridge or Cannister		
Acid Gas		
X Organic Vapor		
Ammonia		

A thorough review of the job task (job safety analysis) by a competent safety professional should be conducted to determine the appropriate level of protection. See 29 CFR 1910, Subpart I and 29 CFR 1910.133 for further information.

8 - SECTION VIII - SPILL & LEAK PROCEDURES

Don appropriate protective clothing and respiratory protection prior to entering a spill/leak area. Eliminate ignition sources. Approach area upwind if possible. Shut off leak if it can be done safely. Dike and pump large spills into salvage containers. Soak up residue and small spills with absorbent clay, sand, or dirt and place in salvage containers. If RQ (reportable quantity) is exceeded, report to National Spill Response Office 1-800-424-8802. Also, in some jurisdictions, spills or leaks of any hazardous materials are reportable--consult local lead agencies for further information. Continue to observe precautions.

**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

Printed 04-10-1995

MATERIAL SAFETY DATA SHEET

Page 5

AQUANOX(R) EB-8100

Caution Code 2-2-0

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MSDS ID: 6EB048F

8 - SECTION VIII - SPILL & LEAK PROCEDURES (continued)

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. Control ignition source; keep away from heat, sparks and open flame.

NOTE: The information on this MSDS is based on data which is considered to be accurate. BPCI, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.

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 this product.

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

By: Anita Wright Date: 6/15/94 Supercedes: 3/15/93  
Regulatory Information Specialist II

6/15/94 - Updated sections III, IV, V, and VI.

*Baker  
Chen*

Halliburton

CLA-STA XP ADDITIVE - 55 GALLONS

PAGE 1

Clas Sta XP

MATERIAL SAFETY DATA SHEET  
HALLIBURTON ENERGY SERVICES  
DUNCAN, OKLAHOMA 73536

DATE: 07-18-96  
REVISED DATE: 06-27-96

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569  
AFTER HOURS: 405/251-3760

\*\*\*\*\* SECTION I - PRODUCT DESCRIPTION \*\*\*\*\*

CHEMICAL CODE: CLA-STA XP ADDITIVE - 55 GALLONS PART NUMBER: 516004900  
PKG QTY: 55 GALLON DRUM APPLICATION: CLAY STABILIZER  
SERVICE USED: WATER AND SAND

\*\*\*\*\* SECTION II - COMPONENT INFORMATION \*\*\*\*\*

COMPONENT	PERCENT	TLV	PEL
QUATERNARY POLYAMINE	100 %	NOT EST	NOT EST

\*\*\*\*\* SECTION III - PHYSICAL DATA \*\*\*\*\*

PROPERTY	MEASUREMENT
APPEARANCE	CLEAR AMBER LIQUID
ODOR	MUSTY (AMINE)
SPECIFIC GRAVITY (H2O=1)	1.130
BULK DENSITY	9.41 LB/GAL
FH	6.5
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	COMPLETE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/D
EVAPORATION RATE (N-HEPTANE=1)	N/D
VAPOR DENSITY	N/D
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT (760 MMHG)	N/D
POUR POINT	<-30 F / <-34 C
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED



CALIFORNIA PROPOSITION 65:  
PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:  
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN  
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

Cla-5ta XP

PRODUCT TOXICITY DATA: ECOTOXICITY  
MYSIDOPSIS BAHIA: 96-HOUR 300 PPM

PRODUCT TLV: NOT ESTABLISHED

----- EFFECTS OF EXPOSURE -----

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION.

EYE:

MAY CAUSE SEVERE IRRITATION WHICH MAY BE PERSISTENT.

SKIN:

MAY CAUSE TRANSIENT IRRITATION.

INHALATION:

VAPORS, MIST OR SPRAY MAY CAUSE IRRITATION.

INGESTION:

CORROSIVE TO MOUTH, ESOPHAGUS, AND STOMACH UPON INGESTION.

CHRONIC EFFECTS:

NO SPECIFIC INFORMATION IS AVAILABLE ON THE CHRONIC EFFECTS OF EXPOSURE.

OTHER SYMPTOMS AFFECTED:

A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENERD BY  
EXPOSURE TO THIS PRODUCT.

----- EMERGENCY AND FIRST AID PROCEDURES -----

E:  
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. SEEK  
PROMPT MEDICAL ATTENTION.

SKIN:

PROMPTLY WASH SKIN WITH SOAP AND WATER.

INHALATION:

REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

INGESTION:

GIVE UP TO TWO (2) QUARTS OF WATER AND INDUCE VOMITING. DO NOT GIVE ANYTHING  
BY MOUTH IF PERSON IS DROWSY, UNCONSCIOUS. OR HAS NO GAG REFLEX. SEEK  
PROMPT MEDICAL ATTENTION.

STABILITY: STABLE  
CONDITIONS TO AVOID:

NOT APPLICABLE.

INCOMPATIBILITY (MATERIALS TO AVOID):

STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS:

NITROGEN OXIDES, CARBON DIOXIDE AND/OR CARBON MONOXIDE.

HAZARD POLYMERIZATION: WON'T OCCUR

CONDITIONS TO AVOID:

NOT APPLICABLE.

\*\*\*\*\* SECTION VII - SPILL OR LEAK PROCEDURES \*\*\*\*\*

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AND STOP LEAK WHERE SAFE. CONTAIN  
AND ABSORB SPILL WITH AN INERT MATERIAL. SCOOP UP AND REMOVE.

WASTE DISPOSAL METHOD:

---

GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT ABSORBED MATERIAL TO  
SANITARY LANDFILL.

\*\*\*\*\* SECTION VIII - SPECIAL PROTECTION INFORMATION \*\*\*\*\*

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):  
NOT NORMALLY NEEDED, BUT IF SIGNIFICANT EXPOSURES ARE TO BE ENCOUNTERED THEN  
THE FOLLOWING TYPE OF RESPIRATOR IS RECOMMENDED:  
ORGANIC VAPOR CHEMICAL CARTRIDGE RESPIRATOR WITH A DUST-MIST FILTER.  
VENTILATION:  
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE  
USED IN AREAS WITHOUT GOOD CROSS VENTILATION.  
PROTECTIVE GLOVES:  
IMPERVIOUS RUBBER GLOVES.  
EYE PROTECTION:  
WEAR GOGGLES AND/OR FACE SHIELD. PROVIDE EYEWASH AND QUICK DRENCH SYSTEM.  
OTHER PROTECTIVE EQUIPMENT:  
RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

\*\*\*\*\* SECTION IX - SPECIAL PRECAUTIONS \*\*\*\*\*

PRECAUTIONARY LABELING CLA-STA XP ADDITIVE - 55 GALLONS 516.004900

WARNING:

IRRITATING TO EYES AND UPPER RESPIRATORY PASSAGES.  
MAY CAUSE SEVERE EYE AND SKIN IRRITATION.  
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.

OTHER HANDLING AND STORAGE CONDITIONS:

STORE AWAY FROM OXIDIZERS.  
STORE IN A COOL WELL VENTILATED LOCATION.  
KEEP CONTAINER CLOSED WHEN NOT IN USE.  
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.  
AVOID BREATHING VAPORS.

CONTAINER DISPOSITION:

IF CONTAINER RETAINS PRODUCT RESIDUES, LABEL PRECAUTIONS MUST BE OBSERVED.  
STORE CONTAINER WITH CLOSURES IN PLACE. OFFER EMPTY CONTAINER TO RECONDI-  
TIONOR OR RECYCLER FOR RECONDITIONING OR DISPOSAL. ENSURE RECONDITIONER  
OR RECYCLER IS AWARE OF THE PROPERTIES OF THE CONTENTS.

\*\*\*\*\* SECTION X - TRANSPORTATION INFORMATION \*\*\*\*\*

DOT SHIPPING DESCRIPTION:  
NOT RESTRICTED

STABILITY: STABLE

CONDITIONS TO AVOID:

NOT APPLICABLE.

INCOMPATIBILITY (MATERIALS TO AVOID):

STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS:

NITROGEN OXIDES, CARBON DIOXIDE AND/OR CARBON MONOXIDE.

HAZARD POLYMERIZATION: WON'T OCCUR

CONDITIONS TO AVOID:

NOT APPLICABLE.

\*\*\*\*\* SECTION VII - SPILL OR LEAK PROCEDURES \*\*\*\*\*

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AND STOP LEAK WHERE SAFE. CONTAIN

AND ABSORB SPILL WITH AN INERT MATERIAL. SCOOP UP AND REMOVE.

WASTE DISPOSAL METHOD:

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION

FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y

CHARGES (ISOLATED): N MIXTURE OR PURE MATERIAL: MIX

B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)

N/A

C. EPA - SARA TITLE III, CFR 305 (EXTREMELY HAZARDOUS SUBSTANCES)

PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)

CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES

TSCA YES    CERCLA NE    EPC N/D    RCRA N/D    RFR NE    DRSH NE

F. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A  
HAZARDOUS WASTE

\*\*\*\*\*

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE  
DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM  
VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS  
GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN  
BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE  
DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO  
SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY  
SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR  
CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS  
SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY  
OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE  
REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR  
DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND  
SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY  
PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY  
SERVICES.

MORFLO(R) II SURFACTANT - 5 GALLONS

PAGE 1

MATERIAL SAFETY DATA SHEET
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 08-17-95
REVISED DATE 09-04-91

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

SECTION I - PRODUCT DESCRIPTION

CHEMICAL CODE: MORFLO(R) II SURFACTANT - 5 GALLONS PART NUMBER: 070155890
PKG QTY: 5 GALLON DRUM APPLICATION: NON-EMULSIFIER, DISPERSANT
SERVICE USED: CHEMICAL SERVICES

SECTION II - COMPONENT INFORMATION

Table with 4 columns: COMPONENT, PERCENT, TLV, PEL. Rows include ISOBUTANOL and SODIUM ALKYL SULFONATES.

SECTION III - PHYSICAL DATA

PROPERTY MEASUREMENT

Table with 2 columns: PROPERTY, MEASUREMENT. Rows include APPEARANCE, DENSITY, PH, SOLUBILITY, BIODEGRADABILITY, etc.

SECTION IV - FIRE AND EXPLOSION DATA

HEALTH 2 FLAMMABILITY 3 REACTIVITY 0 SPECIAL NONE
FLASH POINT 95 F / 35 C
AUTOIGNITION TEMPERATURE ND F / ND C
FLAMMABLE LIMITS (% BY VOLUME) LOWER N/D UPPER N/D

EXTINGUISHING MEDIA:

USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES:

USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.
FULL PROTECTIVE CLOTHING AND NIOSH APPROVED SELF-CONTAINED BREATHING
APPARATUS REQUIRED FOR FIRE FIGHT PERSONNEL.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MAY BE IGNITED BY HEAT, SPARKS, OR FLAMES. FIGHT FIRE FROM A SAFE DISTANCE
AND FROM A PROTECTED LOCATION. HEAT MAY BUILD PRESSURE AND RUPTURE CLOSED

INJURIES.

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND SULFUR OXIDES.

\*\*\*\*\* SECTION V - HEALTH HAZARD DATA \*\*\*\*\*

CALIFORNIA PROPOSITION 65:

PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:

PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN ACCORDING TO : "NTP, IARC, OSHA, OR, ACGIH".

PRODUCT TOXICITY DATA: TOX ORL-RAT LD50: 8564 MG/KG  
TOX IHL-RAT LC50: 8000 PPM/4H  
TOX SKN-RET LD50: 3417 MG/KG  
AQU TLM96: 330-1000 PPM(BROWN SHRIMP)

PRODUCT TLV: NOT ESTABLISHED

----- EFFECTS OF EXPOSURE -----

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION,

EYE:

CONCENTRATED SOLUTIONS MAY CAUSE SEVERE BURNS.

SKIN:

MAY BE ABSORBED THROUGH SKIN.

PROLONGED OR REPEATED CONTACT MAY CAUSE DERMATITIS.

CONCENTRATED LIQUID MAY CAUSE MODERATE TO SEVERE IRRITATION.

INHALATION:

HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. THIS MAY BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR POSSIBLY UNCONSCIOUSNESS.

HIGH CONCENTRATIONS CAUSES NARCOISIS.

VAPORS. MIST OR SPRAY MAY CAUSE IRRITATION.

INGESTION:

IRRITATION OF THE MOUTH AND THROAT, ABDOMINAL PAIN, NAUSEA AND VOMITING, DIARRHEA, AND COLLAPSE MAY RESULT FROM INGESTION.

CHRONIC EFFECTS:

CHRONIC OVEREXPOSURE MAY CAUSE LIVER AND BLOOD DISORDERS.

OTHER SYMPTOMS AFFECTED:

BECAUSE OF ITS IRRITATING PROPERTIES, THIS MATERIAL MAY AGGRAVATE AN EXISTING DERMATITIS. BREATHING OF VAPOR AND/OR MISTS MAY AGGRAVATE ASTHMA AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE.

----- EMERGENCY AND FIRST AID PROCEDURES -----

EYE:

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. SEEK PROMPT MEDICAL ATTENTION.

SKIN:

IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. SEEK MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.

INHALATION:

REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK PROMPT MEDICAL ATTENTION.

INGESTION:

DO NOT INDUCE VOMITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.

\*\*\*\*\* SECTION VI - REACTIVITY DATA \*\*\*\*\*

STABILITY: STABLE

CONDITIONS TO AVOID:

HEAT, SPARKS AND OPEN FLAME.

INCOMPATIBILITY (MATERIALS TO AVOID):

STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS:

OXIDES OF SULFUR, CARBON DIOXIDE AND/OR CARBON MONOXIDE.

HAZARD POLYMERIZATION: WON'T OCCUR

CONDITIONS TO AVOID:

NOT APPLICABLE.

\*\*\*\*\* SECTION VII - SPILL OR LEAK PROCEDURES \*\*\*\*\*

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AREA AND STOP LEAK WHERE SAFE.

REMOVE IGNITION SOURCES. CONTAIN AND ABSORB SPILL WITH SAND OR OTHER INERT MATERIAL. SCOOP OR SWEEP UP USING NON-SPARKING TOOLS. IN ENCLOSED AREAS, WEAR SELF-CONTAINED BREATHING APPARATUS.

WASTE DISPOSAL METHOD:

GET APPROVAL FROM HAZARDOUS WASTE DISPOSAL SITE AUTHORIZED UNDER EPA-RCRA SUBTITLE C OR STATE EQUIVALENT. SHIP TO SITE.

\*\*\*\*\* SECTION VIII - SPECIAL PROTECTION INFORMATION \*\*\*\*\*

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):

ORGANIC VAPOR CARTRIDGE RESPIRATOR.

VENTILATION:

USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN AREAS WITHOUT GOOD CROSS VENTILATION.

LOCAL EXHAUST VENTILATION MUST BE DESIGNED FOR EXPLOSIVE ATMOSPHERES (NEC CLASS I EQUIPMENT).

PROTECTIVE GLOVES:

NITRILE GLOVES.

EYE PROTECTION:

GOGGLES AND/OR FACE SHIELD.

OTHER PROTECTIVE EQUIPMENT:

NITRILE COATED CLOTHING FOR REASONABLE PROBABILITY OF LIQUID CONTACT AND REPEATED OR PROLONGED VAPOR CONTACT WITH SKIN.

\*\*\*\*\* SECTION IX - SPECIAL PRECAUTIONS \*\*\*\*\*

PRECAUTIONARY LABELING MORFLO(R) II SURFACTANT - 5 GALLONS 070.155890

WARNING!

MAY CAUSE HEADACHE, DIZZINESS AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS.

MAY CAUSE EYE IRRITATION.

MAY CAUSE SEVERE SKIN IRRITATION.

FLAMMABLE!

FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.

OTHER HANDLING AND STORAGE CONDITIONS:

STORE AWAY FROM OXIDIZERS.

KEEP FROM HEAT, SPARKS, AND OPEN FLAME.

KEEP CONTAINER CLOSED WHEN NOT IN USE.

AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

AVOID BREATHING VAPORS.

CONTAINER DISPOSITION:

NOTE: THIS IS A RETURNABLE, REUSABLE CONTAINER. DO NOT CONTAMINATE.

STORE CONTAINER AWAY FROM IGNITION SOURCES WITH ALL CLOSURES IN PLACE.

RETURN EMPTY CONTAINER FOR REUSE AND/OR CREDIT.

\*\*\*\*\* SECTION X - TRANSPORTATION INFORMATION \*\*\*\*\*

ISOBUTANOL SOLUTION - 3 - UN1212 - III

\*\*\*\*\* SECTION XI - ENVIRONMENTAL EVALUATION \*\*\*\*\*

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION

FIRE: Y PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y  
CHRONIC (DELAYED): N MIXTURE OR PURE MATERIAL: MIX

D. EPA CERCLA (SUPERFUND), 40 CFR 302 (REPORTABLE SPILL QUANTITY)  
2 300 GALS. - ISOBUTYL ALCOHOL, U140

E. EPA SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)  
PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)  
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES  
TSCA YES CEPA NE SEC N/D ACCIN N/D NPR NE DRSG NE

D. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

IF PRODUCT BECOMES A WASTE, IT DOES MEET THE CRITERIA OF A HAZARDOUS WASTE AS DEFINED BY US EPA BECAUSE OF:

LIABILITY

\*\*\*\*\*

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DEFECTIVE ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

Stability	Unstable	X	Conditions to Avoid
	Stable		NONE

Incompatibility (Materials to Avoid) **ISOLATE FROM STRONG OXIDIZERS SUCH AS PERMANGANATE.**

Hazardous Decomposition or Byproducts **CARBON MONOXIDE, CARBON DIOXIDE & NITROGEN OXIDE VAPORS FROM BURNING.**

Hazardous Polymerization	May Occur	X	Conditions to Avoid
	Will Not Occur		

**Section VI -- Health Hazard Data**

Route(s) of Entry: Inhalation? **NO** Skin? **NO** Ingestion? **YES**

Health Hazards (Acute and Chronic) **INGESTION: SWALLOWING MAY CAUSE ABDOMINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA. IF SWALLOWING OCCURS, DO NOT INDUCE VOMITING, DUE TO ASPIRATION. SEEK MEDICAL ATTN.**

Carcinogenicity: NTP? **N/E** IARC Monographs? **N/E** OSHA Regulated? **NO**

Signs and Symptoms of Exposure **EYE CONTAMINATION: PRIMARY IRRITATION AND REDNESS. FLUSH WITH PLENTY OF WATER FOR 15 MINUTES, OR UNTIL IRRITATION CEASES.**

Medical Conditions Generally Aggravated by Exposure **NONE**

Emergency and First Aid Procedures **SEE INGESTION, HEALTH HAZARDS.**

**Section VII -- Precautions for Safe Handling and Use**

Steps to Be Taken in Case Material is Released or Spilled **MOP UP WITH ABSORBENT MATERIAL AND DISPOSE IN APPROVED CONTAINERS IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL POLLUTION CONTROL REGULATIONS.**

Waste Disposal Method **RECYCLE OR DISPOSE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS CONCERNING HEALTH, SAFETY AND POLLUTION.**

Precautions to Be Taken in Handling and Storing **DO NOT STORE ABOVE 49°C/120°F. KEEP FROM FREEZING. DO NOT CUT, WELD OR BRAZE ON OR AROUND OPEN CONTAINERS.**

Other Precautions

**Section VIII -- Control Measures**

Respiratory Protection (Specify Type) **NONE**

Ventilation	Local Exhaust	Special	NONE
	Mechanical (General)		
	<b>LOCAL ROOM VENTILATION</b>		
	<b>ACCEPTABLE</b>		<b>NONE</b>

Protective Gloves **NONE** Eye Protection **NONE**

Other Protective Clothing or Equipment

Work/Hygiene Practices **NONE**

Store Copy Store copy

# Material Safety Data Sheet

May be used to comply with  
OSHA's Hazard Communication Standard,  
29 CFR 1910.1200. Standard must be  
consulted for specific requirements.

U.S. Department of Labor  
Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



IDENTITY (As Used on Label and List)

ROAD PRO

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

## Section I

Manufacturer's Name <b>KLEEN PRODUCTS, INC.</b>	Emergency Telephone Number <b>OKLAHOMA POISON CONTROL 405/271-5454</b>
Address (Number, Street, City, State, and ZIP Code) <b>8136 SOUTHWEST 8TH STREET</b>	Telephone Number for Information <b>800/391-1792 405/495-1168 FAX 495-1175</b>
<b>POST OFFICE BOX 75223</b>	Date Prepared <b>05/19/94</b>
<b>OKLAHOMA CITY, OKLAHOMA 73147</b>	Signature of Preparer (optional) <i>[Signature]</i>

## Section II -- Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limit Recommended	% (optional)
<b>PETROLEUM DISTILLATES #64742-15-0 N/E</b>		<b>100 PPM</b>		
<b>AMYL ACETATE #628-63-7</b>	<b>100 PPM</b>	<b>100 PPM</b>		
<b>ISOPROPRANOL #67-63-0</b>	<b>400 PPM</b>	<b>400 PPM</b>		
<b>NONYLPHENOL ETHOXYLATE #26027-38-3 N/E</b>		<b>N/E</b>		
<b>PETROLEUM HYDROCARBON OIL #64741-89-5 N/E</b>		<b>N/E</b>		

## Section III -- Physical/Chemical Characteristics

Bolling Point <b>168° F</b>	Specific Gravity (H <sub>2</sub> O = 1) <b>0.871+-</b>
Vapor Pressure (mm Hg.) <b>820° C</b>	Melting Point <b>15.8</b>
Vapor Density (AIR = 1) <b>5.0</b>	Evaporation Rate (Butyl Acetate = 1) <b>N/E</b>
Solubility in Water <b>COMPLETE</b>	WEIGHT/GALLON <b>7 lbs.</b>
Appearance and Odor <b>THICK, CREAMY WITH BANANA ODOOR</b>	PH <b>7.8+-</b>

## Section IV -- Fire and Explosion Hazard Data

Flash Point (Method Used) <b>110° F PM CC</b>	Flammable Limits <b>.8% By Volume in Air</b>	LEL <b>N/E</b>	UEL <b>N/E</b>
Extinguishing Media <b>VFPA CLASS B EXTINGUISHERS (CO2 or FOAM), FOR CLASS III LIQUID FIRES.</b>			
Special Fire Fighting Procedures <b>WATER SPRAY MAY BE USED TO COOL CONTAINERS. INEFFECTIVE ON FIRE, WILL PROTECT FIREFIGHTERS. USE FOG NOZZLES &amp; SELF CONTAINED BREATHERS.</b>			
Unusual Fire and Explosion Hazards <b>CLOSED CONTAINERS TIGHTLY CLOSED. ISOLATE FROM OXIDIZERS, HEAT, OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE IF EXPOSED TO EXTREME HEAT.</b>			

**ATTACHMENT F**

TABLE 1-1

SUMMARY OF SAMPLING ACTIVITIES ON APRIL 22, 1998  
ROWLAND TRUCKING CO., CARLSBAD, NEW MEXICO

Sampling Location	Sample Identification	Sample Matrix	Sample Collection Method	Analytical Parameters	Comments
Washout pit	RTC-SL-01	Sludge	Tetra Tech collected the sludge samples by using a long-handled ladle and a disposable plastic scoop; the sludge was poured from the ladle into an aluminum pan, from which it was then scooped into the sample container.	TCLP VOCs (1311/8260A) TCLP SVOCs (1311/8270C) TCLP metals (1311/6010B/7000A) Ignitability (1010)	MS/MSD volumes were collected for the sludge matrix.
	RTC-SL-01D			TCLP VOCs (1311/8260A) TCLP SVOCs (1311/8270C) TCLP metals (1311/6010B/7000A)	Duplicate sample of RTC-SL-01
Soil located next to, and east of, the washout pit	RTC-SS-02A	Soil	Tetra Tech collected the soil samples (coring from 4 to 9 feet bgs) by using a post-hole digger, a pick axe, an auger, and disposable plastic scoop. For total VOCs analysis, Tetra Tech scooped the soil directly into the sample container. For total SVOCs and metals analysis, Tetra Tech homogenized the soil in an aluminum pan before scooping the soil into the sample container. Tetra Tech collected enough soil for the duplicate sample.	Total VOCs (8260A) Total SVOCs (8270C) Total metals (3051/6010B/7000A)	MS/MSD volumes were collected for the soil matrix.
	RTC-SS-02AD				Duplicate sample of RTC-SS-02A
Soil located next to, and east, of the washout pit	RTC-SS-02B	Soil	Tetra Tech personnel collected the total VOCs soil sample by using an Encore soil sampler and T-handle; samples will be analyzed by using Methods 5035/8260B.	Total VOCs (5035/8260B)	MS/MSD volumes collected were collected for the soil matrix.
	RTC-SS-02BD				Duplicate sample of RTC-SS-02B

TABLE 1-1 (Continued)

SUMMARY OF SAMPLING ACTIVITIES ON APRIL 22, 1998  
ROWLAND TRUCKING CO., CARLSBAD, NEW MEXICO

Sampling Location	Sample Identification	Sample Matrix	Sample Collection Method	Analytical Parameters	Comments
Off site (east side of road west of facility)	RTC-SS-03A	Soil	Tetra Tech collected the soil samples (coring from 4 to 8 feet bgs) by using a post-hole digger, a pick axe, an auger, and a disposable plastic scoop. For total VOCs analysis, Tetra Tech scooped the soil directly into the sample container. For total SVOCs, and metals analysis, Tetra Tech homogenized the soil in an aluminum pan before scooping the soil into the sample container.	Total VOCs (8260A) Total SVOC (8270C) Total metals (3051/6010B/7900A)	--
	RTC-SS-03B		Tetra Tech personnel collected the total VOCs soil sample by using an Encore soil sampler and T-handle; samples will be analyzed by using Methods 5035/8260B.	Total VOCs (5035/8260B)	--

Notes:

-- No comment  
bgs Below ground surface  
ER Equipment rinse  
MS Matrix spike  
MSD Matrix spike duplicate  
RTC Rowland Trucking Company  
SL Sludge  
SS Surface Soil  
SVOC Semivolatile organic compound  
TCLP Toxicity characteristic leaching procedure  
VOC Volatile organic compound

<sup>a</sup> samples preserved with nitric acid

**ATTACHMENT G**

TABLE 1-1

SUMMARY OF CONSTITUENTS DETECTED IN SUBSURFACE SOIL  
ROWLAND TRUCKING CO., INC., CARLSBAD, NEW MEXICO

Detected Constituent	Subsurface Soil (mg/kg)						EPA Human Health Screening Level <sup>a</sup>	
	RTC-SS-02A	RTC-SS-02AD	RTC-SS-02B	RTC-SS-02BD	RTC-SS-03A (background)	RTC-SS-03B (background)	Soil Regional Background Concentration/Range	Industrial Soil Scenario
	HSL Metals (SW-846 Methods 3051/6010A/7000A)							
Aluminum	12,300	11,000	--	--	9,060	--	45,000	SAT
Arsenic	5.2	5.7	--	--	4.7	--	1.1 - 16.7	610 NI 2.0 C
Barium	7,800	4,990	--	--	262	--	430	SAT
Cadmium	<0.64	1.3	--	--	<0.58	--	0.01 - 1.0	850 N
Calcium	64,900	76,600	--	--	112,000	--	NE	NE
Chromium	25.2	24.7	--	--	11.8	--	38	1,600 N
Copper	38.7	82.2	--	--	3.1	--	20	63,000 N
Iron	21,600	22,700	--	--	7,190	--	20	SAT
Lead	118	130	--	--	2.4	--	10 - 18	2,000 N
Manganese	248	252	--	--	74.8	--	389 - 850	8,300 N
Magnesium	8,760	8,480	--	--	20,000	--	NE	NE
Mercury	0.86	2.3	--	--	<0.12	--	0.1	510 N
Nickel	13.1	13.4	--	--	7.8	--	16	34,000 N
Potassium	3,170	3,120	--	--	1,400	--	NE	NE
Silver	<1.3	1.4	--	--	<1.2	--	0.01 - 5	8500 N
Sodium	7,820	8,670	--	--	<580	--	NE	NE
Vanadium	26.2	24.0	--	--	32.1	--	66	12,000 N
Zinc	116	154	--	--	18.2	--	22 - 50	SAT

TABLE 1-1 (Continued)

SUMMARY OF CONSTITUENTS DETECTED IN SUBSURFACE SOIL  
ROWLAND TRUCKING CO., INC., CARLSBAD, NEW MEXICO

Detected Constituent	Subsurface Soil (mg/kg)						EPA Human Health Screening Level <sup>a</sup>	
	RTC-SS-02A	RTC-SS-0 D	RTC-SS-02B	RTC-SS-02BD	RTC-SS-03A	RTC-SS-03B	Soil Regional Background Concentration/Range	Industrial Soil Scenario
	Total VOCs							
Benzene	<1.6	<16.0	3.9	4.0	<0.0058	<0.0058	NE	3.2 C
sec-Butylbenzene	<1.6	<16.0	1.7	2.3	<0.0058	<0.0058	NE	20,000 N I
Ethylbenzene	<1.6	<16.0	13.0	15.0	<0.0058	<0.0058	NE	3,100 S
Isopropylbenzene	<1.6	<16.0	2.3	2.7	<0.0058	<0.0058	NE	NE
p-Isopropyltoluene	<1.6	<16.0	1.5	1.9	<0.0058	<0.0058	NE	NE
Methylene chloride <sup>b</sup>	<1.6	<16.0	<0.320	<0.320	<0.0058	<0.0058	NE	25 C
Naphthalene	<1.6	<16.0	5.5	5.6	<0.0058	<0.0058	NE	NE
n-Propylbenzene	<1.6	<16.0	3.8	4.5	<0.0058	<0.0058	NE	NE
Toluene	<1.6	<16.0	4.2	4.3	<0.0058	<0.0058	NE	2,700 S
1,2,4-Trimethylbenzene	<1.6	<16.0	17.0	20.0	<0.0058	<0.0058	NE	SAT
1,3,5-Trimethylbenzene	<1.6	<16.0	7.6	9.0	<0.0058	<0.0058	NE	SAT
m-Xylene & p-Xylene	<0.8	<7.9	39.0	36.0	<0.0029	<0.0029	NE	980 S
o-Xylene	<0.8	<7.9	13.0	12.0	<0.0029	<0.0058	NE	980 S
Total SVOCs (SW-846 Method 8270B)								
2-Methylnaphthalene	58	89.0	--	--	<0.380	--	NE	NE
Naphthalene	<21.0	21.0	--	--	<0.380	--	NE	800 S

**TABLE 1-1 (Continued)**

**SUMMARY OF CONSTITUENTS DETECTED IN SUBSURFACE SOIL  
ROWLAND TRUCKING CO., INC., CARLSBAD, NEW MEXICO**

---

Notes:

All concentrations are reported in units of milligrams per kilogram (mg/kg).

Constituents reported in this table include those detected in at least one sample at a concentration greater than the reporting limit.

XXX	Value exceeds both (1) EPA Region 6 human health media-specific screening level for residential soil and (2) soil regional background concentration/range.
--	Sample not analyzed for this constituent
A	SW-846 VOC Method 8260A
B	SW-846 VOC Methods 5035/8260B; Tetra Tech collected samples by using the Encore sampler.
C	Carcinogenic effects
D	Duplicate sample
EPA	U.S. Environmental Protection Agency
HSL	Hazardous Substance List
I	Ingestion route only
N	Noncarcinogenic effect
NE	None established
HSL	Hazardous substance list
RTC	Rowland Trucking Co., Inc.
S	Soil saturation concentration
SAT	Risk-based value above expected saturation point
SS	Surface soil
SVOC	Semivolatile organic compound
VOC	Volatile organic compound
a	EPA Region 6 human health media-specific screening levels for soil, residential scenario (Enclosure 3)
b	Method blank contamination. The associated method blank contains the target analyte at a reportable level.

---

**TABLE 1-2**

**SUMMARY OF CONSTITUENTS DETECTED IN SLUDGE FROM WASHOUT PIT  
ROWLAND TRUCKING CO., INC., CARLSBAD, NEW MEXICO**

Detected Constituent	Sludge (mg/kg)		
	RTC-SL-01	RTC-SL-01D	Regulatory Limit <sup>a</sup>
<b>TCLP VOC (SW-846 Methods 1131/8260A)</b>			
Benzene	0.48	0.27	0.5
<b>TCLP SVOC (SW-846 Methods 1131/8270B)</b>			
None	NA	NA	NE
<b>TCLP Metals (SW-846 Methods 1131/6010A/7000A)</b>			
None	NA	NA	NE
<b>Ignitability (SW-846 1010)</b>			
Ignitability	>150	--	140

Notes:

All concentrations are reported in units of milligrams per kilogram (mg/kg).  
Constituents reported in this table include those detected in at least one sample at a concentration greater than the reporting limit.

- Sample not analyzed for this constituent
- D Duplicate sample
- NA Not applicable
- NE None established
- RTC Rowland Trucking Co., Inc.
- SL Sludge
- SVOC Semivolatile organic compound
- TCLP Toxicity characteristic leachate procedure
- VOC Volatile organic compound

<sup>a</sup> Regulatory limits for TCLP analytes are specified under Title 40, Code of Federal Regulations (40 CFR) Part 261.1 (b). Regulatory limits for ignitability (flash point) are specified under 40 CFR Part 261.21 (a) (1).

**ATTACHMENT H**

# Chain of Custody Record



QUA-4149 (1097)

Client <b>TETRA TECH EM INC.</b>		Project Manager <b>LUIS VEGA/MARK BUTLER</b>		Date <b>4/23/98</b>	Page <u>1</u> of <u>2</u>
Address <b>350 N. ST. PAUL ST., SUITE 2070</b>		Telephone Number (Area Code)/Fax Number <b>(214) 740-2001/(214) 922-9715</b>		Lab Location <b>AUSTIN, TX</b>	
City <b>DALLAS</b>	State <b>TX</b>	Zip Code <b>75201</b>	Site Contact <b>(SAME)</b>		
Project Number/Name <b>270R0609502 LA / RTC</b>			Carrier/Waybill Number <b>FEDEX 804045850168</b>		

Contract/Purchase Order/Quote Number

Sample I.D. Number and Description	Date	Time	Sample Type	Containers			Preservative	Condition on Receipt/Comments	Analysis							
				Volume	Type	No.			VOA (8260A)	SVDA (8270)	VOA (8260B)	METALS (3051)	GC/IC (1000)	TCLP VOA (1311/120)	TCLP SVDA (1311/120)	TCLP METALS (1311/120)
RTC-ER01	4/22/98	1220	WATER	40 ml	VIAL	2	---	RINSE/BLANK	X							
RTC-ER01		1220	↓	1 liter	BR	2	---	↓		X						
RTC-ER01		1220	↓	1 liter	POLY	1	HNO3	↓			X					
<del>RTC-SL-01</del>																
RTC-SL-01		1245	SLUDGE	32oz	WMG	2	---	MS/MSD				X		X	X	X
RTC-SL-01D		1315	SLUDGE	32oz	WMG	1	---					X		X	X	X
RTC-SS-02A		1509	SOIL	4oz	WMG	2	---	MS/MSD	X							
		1500	SOIL	32oz	WMG	1	---	MS/MSD		X		X				
RTC-SS-02B		1500	SOIL	5g	ENCURE	6	---	MS/MSD			X					
		1500	SOIL	25g	ENCURE	3	---	MS/MSD			X					
RTC-SS-02AD		1600	SOIL	4oz	WMG	1	---		X							
		1600	SOIL	9oz	WMG	1	---			X		X				

Special Instructions: RTC-ER01: VOA NOT PRESERVED - ANALYZE WITHIN 7 DAYS  
 RTC-SL-01 & RTC-SS-02: OILY MATRIX

Possible Hazard Identification				Sample Disposal				(A fee may be assessed if samples are retained longer than 3 months)
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Disposal By Lab	<input checked="" type="checkbox"/> Archive For <u>3</u> Months	

Turn Around Time Required	QC Level	Project Specific Requirements (Specify)
<input type="checkbox"/> Normal <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Other <u>21-DAY</u>	<input type="checkbox"/> I. <input type="checkbox"/> II. <input checked="" type="checkbox"/> III.	<u>CLP-LIKE DATA PACKAGE</u>

1. Relinquished By <b>LUIS VEGA</b>	Date <b>4/23/98</b>	Time <b>1030</b>	1. Received By <b>FEDEX</b>	Date <b>4/23/98</b>	Time <b>1030</b>
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: BR = AMBER BOSTON ROUND  
 WMG = WIDE-MOUTH GLASS

# Chain of Custody Record



QUA-4149 (1097)

Client <b>TETRA TECH EM INC.</b>		Project Manager <b>LUIS VEGA / MARK BUTLER</b>		Date <b>4/23/98</b>		Page <u>2</u> of <u>2</u>											
Address <b>350 N. ST. PAUL ST., SUITE 2600</b>		Telephone Number (Area Code)/Fax Number <b>(214) 740-2007 / (214) 922-9715</b>		Lab Location <b>AUSTIN, TX</b>		Analysis											
City <b>DALLAS</b>	State <b>TX</b>	Zip Code <b>75201</b>	Site Contact <b>(SAME)</b>		<table border="1"> <tr> <td>VOA (E26CA)</td> <td>VOA (E27D/E27E)</td> <td>VOA (E27G)</td> <td>METALS (305)</td> <td>GC/IC (100)</td> </tr> <tr> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> </table>			VOA (E26CA)	VOA (E27D/E27E)	VOA (E27G)	METALS (305)	GC/IC (100)		X			
VOA (E26CA)	VOA (E27D/E27E)	VOA (E27G)	METALS (305)	GC/IC (100)													
	X																
Project Number/Name <b>270R0609502LA / RTC</b>			Carrier/Waybill Number <b>FEDEX 804045850168</b>														
Contract/Purchase Order/Quote Number																	

Sample I.D. Number and Description	Date	Time	Sample Type	Containers			Preservative	Condition on Receipt/Comments	VOA (E26CA)	VOA (E27D/E27E)	VOA (E27G)	METALS (305)	GC/IC (100)
				Volume	Type	No.							
RTC-55-02BD	04/22/98	1600	SOIL	5g	ENCURE	2	—						
RTC-55-02BD		1600	SOIL	25g	ENCURE	1	—		X				
RTC-55-03A		1655	SOIL	40Z	WVG	1	—	BACKGROUND	X				
RTC-55-03A		1655	SOIL	90Z	WVG	1	—			X	X		
RTC-55-03B		1655	SOIL	5g	ENCURE	2	—		X				
RTC-55-03B		1655	SOIL	25g	ENCURE	1	—		X				

Special Instructions

Possible Hazard Identification			Sample Disposal			(A fee may be assessed if samples are retained longer than 3 months)			
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Disposal By Lab	<input checked="" type="checkbox"/> Archive For <u>3</u> Months		
Turn Around Time Required			QC Level			Project Specific Requirements (Specify)			
<input type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input checked="" type="checkbox"/> Other <u>21-DAY</u>	<input type="checkbox"/> I.	<input type="checkbox"/> II.	<input checked="" type="checkbox"/> III.	<u>CLP-LIKE DATA PACKAGE</u>			
1. Relinquished By <u>LUIS VEGA</u>			Date <u>4/23/98</u>	Time <u>1030</u>	1. Received By <u>FEDEX</u>			Date <u>4/23/98</u>	Time <u>1030</u>
2. Relinquished By			Date	Time	2. Received By			Date	Time
3. Relinquished By			Date	Time	3. Received By			Date	Time

Comments WVG = WIDE-MOUTH GLASS

**FedEx** USA Airbill FedEx Tracking Number

804045850168

Form I.D. No. 0200

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**1 From** (please print and press hard)  
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Sender's Name LUIS VEGA Phone (214) 754-8765

Company TETRA TECH

Address 350 N ST PAUL ST Dept./Floor/Suite/Room

City DALLAS State TX ZIP 75201

**2 Your Internal Billing Reference Information** (Optional) (First 24 characters will appear on invoice) 27DRQ609502LA

**3 To** (please print and press hard)  
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Company QUANTERRA

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FedEx Letter Rate not available. Minimum charge: One pound rate.

**4b Express Freight Service** Packages over 150 lbs. Delivery commitment may be later in some areas.  
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**5 Packaging**  FedEx Letter  FedEx Pak  FedEx Box  FedEx Tube  Other Pkg.  
Declared value limit \$500

**6 Special Handling** (One box must be checked) (As per attached Shipper's Declaration)  
Does this shipment contain dangerous goods?  No  Yes  Yes (Declaration not required)  
 Dry Ice (Dry Ice, 9, UN 1845) x kg. CA  Cargo Aircraft Only  
\*Dangerous Goods cannot be shipped in FedEx packaging.

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Total Packages	Total Weight	Total Declared Value*	Total Charges
1	59	\$ .00	

\*When declaring a value higher than \$100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

**8 Release Signature** Sign to authorize delivery without obtaining signature.

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

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DALLAS, TEXAS 75202-2733

JUN 05 1998

CERTIFIED MAIL: RETURN RECEIPT REQUESTED - P 104 191 877

Mr. Roger Anderson  
State of New Mexico  
Energy, Minerals, and Natural  
Resources Department  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501

Dear Mr. Anderson:

For your information, I have enclosed a copy of the Compliance Evaluation Inspection (CEI) report for Rowland Trucking Company. The inspection was conducted on April 20 and 22, 1998. There were no violations identified which warrant any further Environmental Protection Agency action.

If you have any questions, please contact me, or have a member of your staff contact Ms. Nancy Jones of my staff at (214) 665-8041.

Sincerely yours,

*Carol D. Peters*  
or Desi Crouther, Chief  
Hazardous Waste Enforcement Branch

Enclosure

Inspection Date: April 20 & 22, 1998

EPA ID Number: NMD982564767

Facility Name: Rowland Trucking Company

Physical Location: 1609 E. Green  
Carlsbad, New Mexico, 88220

Mailing Address: P. O. Box 127  
Carlsbad, New Mexico 88220

Type of Ownership:  Federal  State  County  Municipal  Private

Inspection Participants: (name and phone number)

Lead EPA Inspector: Nancy Jones (214) 665-8041 Initials (3): NLJ

Other Participants: M. Coffman (505) 827-1558, L. Vega (214) 740-2007,

Facility Owner: Key Energy Group

Facility Representative(s):

Name	Title	Phone No.
<u>John Hutcheson</u>	<u>Plant Manager</u>	<u>(505) 393-5807</u>
<u>C.W. Williams</u>	<u>Salesman</u>	<u>"</u>

Facility Description: Rowland Trucking Co. is an oil field service facility which hauls KCL water, brine water and fresh water to customers' well sites. They also haul produced water and tank bottoms from their customers' sites to disposal sites.

Generator Status:

LQG (>1000kg/mo)  SQG (100kg/mo to 1000kg/mo)  CESQG (<100kg/mo)

Inspection Type:  EPA Lead  State Lead  CSE  CEI  
 CDI  Sampling  Multi-Media  Other

Reason for Evaluation:

(01) Follow up  (02) Case Development  (03) Sampling  
 (04) Citizen Complaint  (07) General  (16) CAV  
 (63) US/Mexico  (65) CAV-US/Mexico

Summary of Inspection: see narrative

Checklists Completed:

Generator  Generator Supplement  Tanks  
 Containers  Surface Impoundments  Transporter  
 Subpart AA/BB  Subpart CC  Photographs  
 Sampling Data  Other

Attachments: HW Notification, Site Location Map/Site Layout Map, Discharge Plan, CRI Shipping Documents, MSDSS, Summary of Sampling Activities, Summary of Analytical Results, and Chain of Custody

Peer Reviewed by: [Signature]

GEN-AS

Date: 4-4-98

## ROWLAND TRUCKING COMPANY

On April 20 & 22, 1998, a Compliance Evaluation Inspection was conducted at Rowland Trucking Company located at 1609 East Green, Carlsbad, New Mexico. The purpose of the inspection was to respond to a referral from the Roswell office of the Bureau of Land Management (BLM). BLM received a citizen complaint concerning buried drums containing residues of oil field chemicals including surfactants and xylene. The drums were allegedly buried in a rinsate pit approximately ten years ago.

The CEI began at 3:50 PM on April 20, 1998 with one of the salesmen, C.W. Williams. Mr. Williams explained that the plant manager would not be in the office that day. The following personnel were present during the inspection:

Nancy Jones	RCRA Enforcement Officer
Mark Coffman	NMED RCRA Inspector
Luis Vega	Tetra Tech-EPA Contractor
Ale Garza	Tetra Tech-EPA Contractor
C.W. Williams	Rowland Trucking Salesman
John Hutcheson	Rowland Trucking Plant Manager

### BACKGROUND

Rowland Trucking Company operates an oil field service facility which hauls Potassium Chloride treated water (KCL water), brine water, and fresh water to their customers' well sites. They haul produced water to BKE located in Carlsbad and Bone Springs Salt Water Disposal. A copy of the facility's discharge plan is included as Attachment C. Also, they occasionally vacuum out tanks for their customers and haul the tank bottoms to wherever their customer specifies (usually Controlled Recovery Inc. (CRI) or Prabo). Mr. Williams stated that the tank bottoms may contain naturally occurring radioactive material (NORM). However, the only analyses conducted on the tank bottoms is for H<sub>2</sub>S. In 1989, the facility submitted a notification to the Louisiana Department of Environmental Quality which stated that they were a small quantity generator of D001 and D002 waste. The notification is included as Attachment A. Mr. Williams stated he was not aware of the facility generating any hazardous waste. He said they possibly generate used oil and antifreeze.

### SITE TOUR

A site location map and site layout map are included as Attachment B. At the time of the inspection, there was an existing truck rinsate pit (Photograph # 1-3) and a rinsate pit under construction (Photograph # 4-5). The existing rinsate pit contained truck washout water and frac tank rinsate. Solids build-up are sent to CRI for disposal. The solids contain frac sand and paraffin. Several CRI shipping documents are included as Attachment D. The pit under construction will replace the existing rinsate pit. The existing pit is concrete lined. The

new pit will be larger and have a liner, a concrete base and sides.

There were also 9 frac tanks, 4 storage bins, 2 aboveground storage tanks (AST), and a cement pad with 13 55-gallon product drums located in the yard (Photograph # 6). The drums contained various oil field chemicals/surfactants used as additives to the water Rowland Trucking hauls to their customers' well sites. Material Safety Data Sheets for the chemicals are included as (Attachment E). One of the ASTs contained KCL water and the other contained brine water. There were 2 additional ASTs and 3 trash bins located at the front of the facility, southwest of the office.

The RCRA enforcement officer asked Mr. Williams to show the inspection team the area where the old rinsate pit, in which the drums were allegedly buried was located. Mr. Williams stated that he was not aware that drums were buried. However, he indicated that the old rinsate pit was underneath or next to the existing pit. A subsurface survey was conducted with a Geonics EM 31 magneto-meter to search for the buried drums. Three areas were identified with the EM 31 as possible locations containing subsurface metal (see Attachment B). However, none of these areas coincided with the information provide by the informant or the facility on where the drums/old rinsate pit were allegedly buried. The inspection team marked one of the areas which was located southeast of the existing pit with spray paint (Photograph #9). The EM 31 indicated stronger readings in this particular area. The RCRA enforcement officer explained that the inspection team would return to collect samples, and not to disturb the marked area. The inspection team exited the facility at 5:50 PM.

#### **SAMPLING ACTIVITIES**

The inspection team arrived at the facility again at 11:25 AM on April 22, 1998. Tetra Tech collected an equipment rinsate blank (RTC-ER-01) by pouring deionized water through soil augers into sample containers (Photograph # 10). The inspection team was met by the plant manager, John Hutcheson. Tetra Tech conducted another electromagnetic survey of the yard with the EM 31 (Photograph # 7-8). Mr. Hutcheson stated that he thought the area marked with spray paint on April 20, 1998, by the inspection team might be where an electrical line was buried. Based on this information and information provided by the informant, it was decided not to sample in this area. It was also decided not to sample the other two areas identified with the EM 31. The facility explained that the area northwest of the pit under construction was near a buried water line. The area southwest of the pits was not sampled because it was not near the areas identified by the informant or facility personnel as possible locations of the old rinsate pit.

The RCRA enforcement officer decided to have samples collected

from the sludge in the existing rinsate pit to confirm the contents were typical oil and gas exploration and production exempt wastes. Samples RTC-SL-01 and RTC-SL-01D (duplicate of RTC-SL-01) were collected by using a long handled ladle and a disposable plastic scoop (Photograph # 11-14). The samples were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) volatile organics (Method 1311/8260A), TCLP semi-volatile organics (Method 1311/8270C), TCLP metals (Method 1311/6010B/7000A), and ignitability (Method 1010).

Although, the EM 31 did not detect any subsurface metal near the existing pit, the informant and the facility personnel indicated an old rinsate pit was covered up approximately 10 years ago and was located underneath the existing pit or between the existing pit and the pit under construction. Therefore, the RCRA enforcement officer decided to have Tetra Tech auger several feet below ground surface next to, and east of the existing pit in an attempt to locate the old rinsate pit (see Attachment B for sample location). A post-hole digger and a pick axe were used to dig through 12-18 inches of compacted gravel cover. Then, an auger was used to core deeper below the surface. A black sludge layer was identified at 4 feet below ground surface. The RCRA enforcement officer directed Tetra Tech to collect samples in an effort to determine whether subsurface contamination could have resulted from the burial of drums. Samples RTC-SS-02A, RTC-SS-02AD, RTC-SS-02B, and RTC-SS-02BD were collected at a depth of 4-9 feet below ground surface (Photograph # 15-17). The total depth of the sludge layer could not be determined because the sidewalls of the auger hole kept collapsing. A photo ionization detector (PID) was used to determine the concentration of organic gases. The maximum PID reading inside the auger hole was approximately 50 parts per million (ppm). Previously, a PID reading for the facility was established to be approximately 5 ppm with a background PID reading of approximately 1 ppm. Samples RTC-SS-02A and RTC-SS-02AD (duplicate of RTC-22-02A) were analyzed for total volatile organics (Method 8260A), total semi-volatile organics (Method 8270C), and total metals (Method 3051/6010B, 7000A). Samples RTC-SS-02B and RTC-SS-02BD (duplicate of RTC-SS-02B) were analyzed for total volatile organics (Method 5035/8260B).

Background soil samples were collected off-site on the east side of the road west of the facility. Samples RTC-SS-03A and RTC-SS-03B were collected by coring 4-8 feet below ground surface using a post-hole digger, a pick axe, and an auger. Sample RTC-SS-03A was analyzed for total volatile organics (Method 8260A), semi-volatile organics (Method 8270C), and total metals (Method 3051/6010B/7000A). RTC-SS-03B (Photograph # 18) was analyzed for total volatile organics (Method 5035/8260B).

Method 5035/8260B is a new method for analyzing volatile organics which has been demonstrated to provide more accurate results. Because EPA Region 6 has been using Method 8260A, the RCRA enforcement officer decided to collect samples for both methods.

and compare the results. Method 5035/8260B uses methanol as a preservative. In this case, the lab provided Tetra Tech with Encore sampling devices prior to the inspection. The samples were collected with the Encore unit and returned to the lab, where the soil it contained was added to methanol. The lab took an aliquot of the methanol and analyzed it using the applicable method.

A summary of the sampling activities is included as Attachment F.

An exit briefing was conducted to discuss areas of concern observed during the inspection. The RCRA enforcement officer explained that the only concern was the buried drums. However, the EM 31 had not detected any subsurface metal in the areas the informant had indicated. Therefore, the sample results would be used to identify subsurface contamination. The inspection team exited the facility at 5:30 PM.

No significant findings were identified in the laboratory analysis. A summary of the sample results is included as Attachment G.