

**GW – 348**

**ACO**

**YEAR: 2009**

## **Lowe, Leonard, EMNRD**

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**From:** Lowe, Leonard, EMNRD  
**Sent:** Tuesday, April 28, 2009 11:32 AM  
**To:** 'Anthony Wiggins'  
**Cc:** Altomare, Mikal, EMNRD; Sanchez, Daniel J., EMNRD; Powell, Brandon, EMNRD; Perrin, Charlie, EMNRD; VonGonten, Glenn, EMNRD  
**Subject:** GW-348, Chaco Chemical Co. Discharge Plan Application  
**Attachments:** DP Application.pdf; DP Guide Oilfield.Service.pdf; New & Mod WQCC PN Rules.pdf; 2009\_4-15ACOnforcementltr.pdf

**Importance:** High

Mr. Anthony Wiggins,

Please submit an **entire discharge plan application** for your facility located at CR 5759 # 20, Farmington New Mexico.

I have attached:

1. The Discharge Plan application detailing all information needed for your facility. Please annotate the assigned discharge permit number, GW-348, on the application. *The application was previously sent in an e-mail on November 25, 2008.*
2. The Guidelines for the Preparation of discharge plans. *This was previously sent in an e-mail on November 25, 2008*
3. The WQCC rules for information needed to determine your application to be Administratively Complete, Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC. AND required information needed for an applicant public notice Subsection F of 20.6.2.3108. All fonts in red pertain to the overall process of a NEW discharge permit. *This was previously sent in an e-mail on November 25, 2008.*
4. I have also attached the courtesy Finalized ACO from Mikal Altomare, Assistant General Counsel, dated April 15, 2009 indicating the current situation. The letter was received by Christine Wiggins on April 27, 2009.

Please submit required information ASAP.

llowe

### **Leonard Lowe**

Environmental Engineer  
Oil Conservation Division/EMNRD  
1220 S. St. Francis Drive  
Santa Fe, N.M. 87505  
Office: 505-476-3492  
Fax: 505-476-3462  
E-mail: [leonard.lowe@state.nm.us](mailto:leonard.lowe@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/>



# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
**Reese Fullerton**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



April 15, 2009

## **ENFORCEMENT OF FINAL ADMINISTRATIVE COMPLIANCE ORDER** **NM-OCD 2009-001**

**Anthony Wiggins**  
Chaco Chemical Company, LLC.  
P.O. Box 3526  
Farmington, NM 87499  
**Certified Mail No.**

### **\*IMPORTANT-DEADLINES ENCLOSED**

Re: **ENFORCEMENT OF FINAL COMPLIANCE ORDER NM-OCD 2009-01**  
**Chaco Chemical Company, LLC.**

Failure to apply for, obtain and maintain a discharge permit pursuant to WQCC Rules and the Water Quality Act. [OCD Discharge Permit File Designation: GW-348]

Dear Mr. Wiggins:

As you are aware, last month you received an Administrative Compliance Order, designated as **NM-OCD 2009-01** by the Oil Conservation Division, Environmental Bureau, which addressed your company's ongoing failure and refusal to apply for, obtain and maintain a discharge permit pursuant to WQCC Rules and the Water Quality Act. Certified mail return receipt reflects that Chaco received the Order on March 14, 2009. (*Attachment 1*). As provided in the Order, Chaco had thirty (30) days from the date of receipt of the Order to contest it, submit an Answer and request a hearing before the WQCC, which, based upon Chaco's date of receipt, made the deadline for such submissions April 13, 2009. (*Section VI, p.17-18*).

The deadline has now passed, and Chaco having submitted no such submissions or hearing requests pursuant to the provisions of the Order, the Order is now FINAL. For your reference, the language from NM-OCD 2009-01 relating to Order Finality is inserted below:

50. This Order shall become final unless the Respondent files a Request for Hearing and Answer with the WQCC within thirty (30) days of receipt of this Order. Failure to file an Answer constitutes an admission of all facts alleged in the Order and a waiver of the right to a hearing under Section 74-6-10(G) of WQA concerning this Order.

(*Section VII, ¶50, p. 18*).

Oil Conservation Division \* 1220 South St. Francis Drive

\* Santa Fe, New Mexico 87505

\* Phone: (505) 476-3440 \* Fax (505) 476-3462\* <http://www.emnrd.state.nm.us>



The Order imposes a number of obligations upon Chaco, among which are several, specific upcoming deadlines. As a courtesy, we are contacting you now to reiterate these deadlines now that the Order has become final. As provided at pages 14-17 in Sections IV and V, Chaco is required to comply with the following deadlines:

- Chaco must submit the following by Monday April 28, 2009. Paragraphs 40(a-c) requiring submissions within 15 days of the Order becoming final (4/13/09):
  - Chaco must submit a full and complete discharge permit application to the Oil Conservation Division. 40(a)
  - Chaco must submit all information and documentation required for a determination of "administrative completeness" pursuant to section 3108. 40(b)
  - Chaco must provide the OCD with a preliminary list identifying all landowners within a 1/3 mile radius of the discharge location. The list should identify all known landowners currently known to Chaco to meet this criteria and should specify Chaco's plan and an estimated timeframe for ascertaining the identity of any as-yet unidentified landowners within that 1/3 mile radius. 40(c)

Please note: Your contact for submission of the above items relating to the discharge permit is:

LEONARD LOWE  
OCD Environmental Bureau  
505.476.3492  
leonard.lowe@state.nm.state

- Chaco must remit the following civil penalty assessments by Friday June 12, 2009- Paragraphs 41 and 44 requiring payment of penalty assessment within 90 days of date of receipt (3/14/09):
  - \$79,000 (Paragraph 41, specifically relating to Chaco's failure to comply with WQCC rules following issuance of a formal notification on 4/2/02).
  - \$410,000 (Paragraph 43, relating to Chaco's renewed and continued failure to comply with WQCC rules following issuance of subsequent formal notification on 9/8/05).

TOTAL CIVIL PENALTY REMITTANCE DUE FROM CHACO BY FRIDAY JUNE 12, 2009 =  
\$489,000

Please be aware that the Order includes provisions for the assessment of additional penalties on a per-day basis should Chaco fail to comply with either of the above-noted penalty assessments. (Paragraphs 43 and 46). Additionally, pursuant to NMSA 74-6-10(F)(1), additional per-day penalties can be assessed against Chaco for failure to comply with the other deadlines and obligations imposed by the Order as well. Finally, in the event of



*Enforcement of Final Administrative Compliance Order*  
NM-OCD 2009-01  
*Anthony Wiggins, Chaco Chemical Company, LLC*  
April 15, 2009  
Page 3

noncompliance, the Division has the option of proceeding to District Court to seek injunctive relief.

If you have questions about the Order you may call me at (505) 476-3480. For questions specifically regarding the discharge permit or the application for the discharge permit, please direct your inquiries to Leonard Lowe.

Very truly yours,



Mikal Altomare  
Assistant General Counsel

Encl: Attachment 1-certified mail return receipt.

Ec: Leonard Lowe, Environmental Engineer, OCD Environmental Bureau  
Daniel Sanchez, Compliance and Enforcement Manager  
Charlie Perrin, Supervisor, OCD District III  
Brandon Powell, Environmental Specialist, District III  
Glenn von Gonten, Acting Environmental Bureau Chief  
Gail MacQuesten, Assistant General Counsel



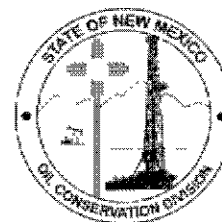
# New Mexico Energy, Minerals and Natural Resources Department

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**Bill Richardson**  
Governor

Joanna Prukop  
Cabinet Secretary  
Reese Fullerton  
Deputy Cabinet Secretary

Mark Fesmire  
Division Director  
Oil Conservation Division



March 13, 2009

## NOTIFICATION OF COMPLIANCE/ENFORCEMENT ACTION

**Anthony Wiggins**  
Chaco Chemical Company, LLC.  
P.O. Box 3526  
Farmington, NM 87499  
**Certified Mail No.**

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### \*RESPONSE REQUIRED-DEADLINES ENCLOSED

Re: **Chaco Chemical Company, LLC.**

Failure to apply for, obtain and maintain a discharge permit pursuant to WQCC Rules and the Water Quality Act. [OCD Discharge Permit File Designation: GW-348]

Dear Mr. Wiggins:

Please find enclosed an Administrative Compliance Order, designated as NM-OCD 2009-01 by the Oil Conservation Division, Environmental Bureau, directed to Chaco Chemical Company, LLC and regarding your company's ongoing failure and refusal to apply for, obtain and maintain a discharge permit pursuant to WQCC Rules and the Water Quality Act.

If you have questions about the Order you may call me at (505) 476-3480.

Very truly yours,

Mikal Altomare  
Assistant General Counsel

Encl: WQCC Administrative Compliance Order No. NM-OCD 2009-01 with Exhibits A through O



*Administrative Compliance Order NM-OCD 2009-01*  
*Anthony Wiggins, Chaco Chemical Company, LLC*  
*March 13, 2009*  
*Page 2*

Ec:     Leonard Lowe, Environmental Engineer, OCD Environmental Bureau  
         Daniel Sanchez, Compliance and Enforcement Manager  
         Charlie Perrin, Supervisor, OCD District III  
         Brandon Powell, Environmental Specialist, District III  
         Wayne Price, Environmental Bureau Chief  
         Gail MacQuesten, Assistant General Counsel

**STATE OF NEW MEXICO  
NEW MEXICO OIL CONSERVATION DIVISION**

**IN THE MATTER OF  
COMPLIANCE ORDER  
NM-OCD 2009-01,  
CHACO CHEMICAL  
COMPANY, LLC,  
RESPONDENT.**

**ADMINISTRATIVE COMPLIANCE ORDER**

Pursuant to the New Mexico Water Quality Act ("WQA"), NMSA 1978, §§ 74-6-1 to 74-6-17, the Director of the New Mexico Oil Conservation Division (OCD), acting through his designee, the Environmental Bureau Chief of the Oil Conservation Division, issues this Compliance Order ("Order") to **Respondent Chaco Chemical Company, LLC**, (hereafter referred to as "Chaco"), to enforce the WQA and the Water Quality Control Commission ("WQCC") Rules, 20.6.2 NMAC, for violations of the WQA and WQCC Rules.

**I. APPLICABLE/RELEVANT LEGAL STANDARDS**

1. The specified purpose of WQCC Rules relating to discharge permit requirements (Sections 20.6.2.3000 -20.6.2.3114 NMAC) is to control discharges onto or below the surface of the ground so as to protect groundwater with an existing concentration of 10,000 mg/l or less TDS. *Section 20.6.2.3001 NMAC.*
2. The general standard for when a discharge permit is required is articulated by WQCC Rule 20.6.2.3104 NMAC, which provides:

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*Chaco Chemical Co. LLC*

*Administrative Compliance Order -NM-OCD 2009-01,*

*Page 1 of 20*

*March 13, 2009*

**DISCHARGE PERMIT REQUIRED:** Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly of [sic] indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers.

3. WQCC Rule 20.6.2.3106 NMAC sets out the procedure and requirements for submission of an application for discharge permit. This Rule requires that operators that have been provided with notice that they are required pursuant to WQCC rules to apply for and obtain such a permit, submit the discharge permit application within 120 days from the date of receipt of the notice. The specific requirements for the permit application are outlined in Subsection "C" of Rule 20.6.2.3106 NMAC, which provides:

C. A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use or processes expected to naturally occur which will ensure compliance with this Part. At least the following information shall be included in the plan:

- (1) Quantity, quality and flow characteristics of the discharge;
- (2) Location of the discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring;
- (3) Depth to and TDS concentration of the ground water most likely to be affected by the discharge;
- (4) Flooding potential of the site;
- (5) Location and design of site(s) and method(s) to be available for sampling, and for measurement or calculation of flow;

- (6) Depth to and lithological description of rock at base of alluvium below the discharge site if such information is available;
- (7) Any additional information that may be necessary to demonstrate that the discharge permit will not result in concentrations in excess of the standards of Section 20.6.2.3103 NMAC or the presence of any toxic pollutant at any place of withdrawal of water for present or reasonably foreseeable future use. Detailed information on site geologic and hydrologic conditions may be required for a technical evaluation of the applicant's proposed discharge plan; and
- (8) Additional detailed information required for a technical evaluation.

4. Section 74-6-10(C) of the WQA authorizes the assessment of a civil penalty of up to \$10,000 per day for each violation of a provision of the WQA or of a regulation or water quality standard adopted pursuant to the WQA.

## **II. FACTUAL BACKGROUND/FINDINGS OF FACT**

5. OCD, a division of the executive branch agency, New Mexico Energy, Minerals, and Natural Resources Department, is charged with administration and enforcement of the Oil and Gas Act (OGA) and OCD Rules, including administration and enforcement of the WQA and the WQCC Rules as applied to New Mexico's oil and gas activity, which includes reviewing discharge plans and, where WQCC requirements have been met, issuing and renewing discharge permits to operators pursuant to WQCC Rules 20.6.2.3106 and 20.6.2.3104 NMAC 2008.

6. Chaco is a well service company with a facility located in Farmington, New Mexico. Until approximately October or November of 2008, Chaco's facility was located at 205 Elm Street, Farmington, after which time the

company moved locations and is now located at 20 County Road 5759, Farmington.

7. Chaco has never obtained an approved discharge permit pursuant to the WQA/WQCC Rules through the OCD.

8. On April 26, 1995 the OCD sent a certified letter to the address of record for Chaco, referencing a recent inspection that had been conducted at its facility, and articulating a number of deficiencies that had been discovered.

Exhibit A (4/26/95 certified letter from OCD to Chaco). Specifically, OCD inspectors determined that the following issues existed at the Chaco facility:

- Secondary containment for drums storing waste required but missing;
- Proper labeling of drums required;
- Impermeable containment required beneath drum storage area but not present; and
- Empty drums being improperly stored on premises.

*Id.*

9. OCD notified Chaco in the 4/26/95 letter that at that time the OCD was opting not to require Chaco to prepare and submit a discharge permit application. However, the OCD advised that a plan would be required if the noted deficiencies were not addressed, and specifically put Chaco on notice that while not yet required, at some point in the future, the OCD may find it appropriate to require that Chaco submit a discharge plan and obtain a permit for this facility. *Id.*

10. A May 24, 1995 follow-up inspection revealed that "overall" the operator appeared to be making an effort to implement the suggestions made by

the OCD following the April inspection. Exhibit B (4/26/95 letter with handwritten notations made following 5/24/95 inspection). It was noted that some of the issues identified in the previous inspection were being addressed. *Id.*

11. On April 2, 2002 the OCD sent a certified letter to Chaco, to follow up regarding an inspection performed on March 5, 2002 during which a number of deficiencies had been identified. Exhibit C. (4/2/02 certified letter from OCD to Chaco). It was noted that Chaco had not ever fully addressed all of the issues identified in the April 1995 inspection, and Chaco was informed that the following issues were specifically observed on March 5<sup>th</sup>:

- Improper storage of drums;
- Plastic liner under drum rack is damaged and inadequate to protect ground;
- General housekeeping is below OCD standards;
- Unidentified 5 gallon containers were observed being stored in the office, and should be stored in more appropriate location and with secondary containment;
- Unlabeled saddle tanks with no secondary containment;
- Mislabeled containers;
- Numerous small bottles, most unlabeled, containing a wide variety of chemicals and not properly stored - some outdated/very old; and
- Various unlabeled vials in the refrigerator.

*Id.* and Exhibit D (Photos from 3/5/02 inspection).

12. The 4/2/02 letter served as specific notice to Chaco that it was now required to submit a discharge plan permit application pursuant to WQCC Rule 20.6.2.3104 NMAC, and that the letter constituted a formal request by the OCD for submission of a discharge plan permit application. *Id.* Chaco was advised



that it had 120 days from the date of receipt of the letter within which to make the plan submission, and was also informed of the associated fees. *Id.*

13. Records reflect that the 4/2/02 letter was received and signed for by Christine Wiggins on April 5, 2002. **Exhibit F.**<sup>1</sup> Based on this date of receipt, the timeframe noted in letter and the specifications of WQCC Rule 3104, the submission from Chaco was due to OCD no later than July 31, 2002.

14. **No submission was received from Chaco by the July 31, 2002 deadline in response to the 4/2/02 letter.**

15. On September 16, 2002, the OCD sent a Notice of Violation ("NOV") to Chaco referencing the 4/2/02 notification that a discharge permit application was required, and informing Chaco that because Chaco had never submitted the required application it was in violation of WQCC regulation 20.6.2.3106.A NMAC. **Exhibit E.** (9/16/02 certified letter from OCD to Chaco).

16. On September 24, 2002, Roger Anderson, Environmental Bureau Chief of the OCD spoke by telephone with Anthony Wiggins of Chaco, at which time Mr. Wiggins claimed that he had not received the 9/16/02 NOV. The 4/2/02 letter and Chaco's need to submit a discharge permit application were discussed.

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<sup>1</sup> As referenced by Environmental Bureau Chief Roger Anderson in the Notice of Violation issued on 9/24/02 (**Exhibit F**). The actual return of service documentation bearing the date and signature of Ms. Wiggins cannot be located. However, upon information and belief, based upon the notation in the NOV dated 9/24/02, the 4/2/02 letter was received by Chaco on 4/5/02 and signed for by Ms. Christine Wiggins.

17. On September 24, 2002, in response to Mr. Wiggins' claim that the 9/16/02 NOV was not received, the OCD re-issued a NOV to Chaco for its failure to submit a discharge permit application. Reference to the telephone conversation of that date was made, and a deadline of October 28, 2002 was set for submission of the discharge permit application to the OCD, as well as for all associated fees (both the application fee of \$100 and the flat fee of \$1,700).

**Exhibit F.** (9/24/02 NOV sent by certified mail to Chaco).

18. As of February 18, 2003 the OCD still had not received the discharge permit application from Chaco. The OCD sent another letter to Chaco instructing Chaco to make contact to discuss the outstanding application.

**Exhibit G.** (2/18/03 certified letter from OCD to Chaco).

19. On March 23, 2005, the OCD inspected the Chaco facility and discovered a number of violations, including evidence of contamination of the ground. The following issues were identified at that inspection:

- Contamination observed on ground surface;
- Drum condition and arrangement is not consistent with OCD specifications;
- Drums on site without proper containment;
- Improper labeling of drums;
- Improper drum storage; and
- Unknown chemical residue on the ground.

**Exhibit H.** (9/8/05 NOV sent by certified mail to Chaco).

20. Chaco was informed by the OCD inspector of the issues identified

at the 3/23/05 inspection, but no follow up was received by the OCD from Chaco addressing these expressed concerns. *Id.*

21. On September 8, 2005, another NOV was issued, this time by OCD Director/Chairman of the Oil Conservation Commission, Mark Fesmire, to Chaco to address ongoing deficiencies at its Farmington facility and Chaco's continuing refusal to submit a discharge permit application. *Id.* The 9/8/05 NOV provided Chaco with a chronological summary of Chaco's persisting noncompliance and the OCD's efforts to obtain compliance from Chaco since 1995 and advised Chaco of what it needed to do to come into compliance. *Id.* Director Fesmire set a deadline of September 26, 2005 for submission of the overdue discharge permit application. *Id.* Chaco was specifically advised that pursuant to the WQA Section 74-6-10(A), failure to comply could result in the assessment of penalties in amounts of up to \$10,000 per day, as well as court action seeking injunctive or other relief. *Id.*

22. **Chaco did not submit its discharge permit application on or before the stated September 26, 2005 deadline.**

23. On July 29, 2008, OCD inspectors attempted to conduct an inspection of the Chaco facility. However, upon attempting to do so, they were informed by Tony Archuleta, owner, that he had recently sold the company to Anthony Wiggins and his brother, and that the Wiggins brothers had moved the facility to another Farmington location. Inspectors were not initially able to

locate the new facility.

24. On November 20, 2008, having located the new Chaco site, OCD conducted an inspection at the new location, 20 County Road 5759, Farmington, and were accompanied by Mr. Anthony Wiggins. At the time of the inspection, the requirement for a discharge permit was discussed with Mr. Wiggins. Mr. Wiggins advised OCD inspectors he was willing to comply and submit an application. **Exhibit I.** (*Summary Report and Photos from 11/20/08 OCD inspection of Chaco facility*).

25. The 11/20/08 inspection yielded the identification of a number of concerns, including:

- **HOUSEKEEPING:** improperly placed empty/partly full barrels; discharge on the ground of an assumed hydrocarbon substance; barrel assumed to be empty that had been placed directly adjacent to neighboring property.
- **DRAINAGE/CONTAINMENT:** questionable integrity of secondary containment and its drainage; cement floor appears porous and is not curbed.
- **STORAGE:** empty/partly empty barrel storage is questionable/ barrels in direct contact with ground; discharge in "empty barrel" area.

*Id.*

26. On November 25, 2008 Environmental Bureau Engineer Leonard Lowe contacted Mr. Wiggins via email at the email address provided by Mr. Wiggins at the 11/20/08 inspection, and formally renewed the OCD's request that Chaco submit a discharge permit application. A number of documents and

additional information to assist Chaco/Wiggins in the preparation of the permit application were attached to this email correspondence. **Exhibit J.** (11/25/08 email from L. Lowe of OCD Environmental Bureau to A. Wiggins of Chaco, exclusive of referenced attachments).

27. On December 9, 2008, having not received any response to the 11/25/08 email, the OCD followed up by sending a formal written letter via certified mail setting a deadline for submission of the discharge permit application and fee of 45 days from the date of receipt of the 12/9/08 letter, and enclosing a number of documents to provide guidance to Chaco in the preparation of the application. **Exhibit K.** (12/9/08 letter sent by certified mail to Chaco, exclusive of referenced attachments).

28. Records reflect that on December 12, 2008, Christine Wiggins received and signed for the December 9, 2008 letter referenced in Paragraph 27 above. **Exhibit L.** (Return receipt card for certified letter sent 12/9/08 to Chaco, signed by C. Wiggins dated 12/12/08). As noted in the letter, Chaco's application was due to the OCD no later than 45 days from date of receipt, or January 26, 2009 based upon the 12/12/08 date of receipt.

29. On January 16, 2009, the OCD received a discharge permit application packet (ultimately determined to be insufficient) and a \$100 application fee from Chaco at which time OCD staff began its review of the submission to determine whether it was "administratively complete." **Exhibit M.**

(Discharge Permit Application, reference GW348, received from Chaco by OCD on 1/16/09).

30. On January 30, 2009 the OCD sent Chaco a certified letter confirming receipt of the application packet and fee, received 1/16/09, but advising Chaco that because certain materials and information were missing from the submission, the application was not sufficient and was therefore "administratively incomplete." **Exhibit N.** (1/30/09 certified letter from OCD to Chaco). Chaco was given an opportunity to remedy the deficiencies of its submission and was advised that it had 15 days from receipt of the 1/30/09 letter to provide the additional, required information and materials as specified in that letter. *Id.* The letter specifically identified the following information and materials that Chaco would need to provide before the discharge permit application would be deemed "administratively complete" and the permitting process could move forward:

- Brief description of activities that produce discharge described in the application;
- Brief description of the expected quality and volume of the discharge;
- Depth to and TDS concentration of the groundwater most likely to be effected (the application noted groundwater was 7 feet below ground surface but failed to specify the TDS); and
- Draft public notice for OCD review and approval to be used in all future postings relating to this permit under WQCC Rules.

*Id.*

31. Records reflect that the 1/30/09 letter was received by Chaco

(signed for by Christine Wiggins) on February 3, 2009, establishing a deadline of February 18, 2009 for submission of the additional materials by Chaco (15 days from date of receipt). **Exhibit O.** (*Return receipt card for certified letter sent 1/30/09 to Chaco signed by C. Wiggins dated 2/3/09*).

32. Chaco did not submit the additional required materials by the February 18, 2009 deadline as required. **The discharge permit application remains "administratively incomplete."**

### **III. CONCLUSIONS OF LAW**

33. OCD has jurisdiction over Chaco and over the subject matter of this Order pursuant to the Oil and Gas Act [Section 70-2-12.B(22) NMSA 1978, as amended] the WQA and WQCC Rules.

34. Chaco is a "person" as defined in Section 70-2-33.A of the Oil and Gas Act, in Section 74-6-2.I of the WQA and in Section 20.6.2.711 NMAC (specifically defined to include "...partnerships, corporations, associations, responsible business or association agents or officers.").

35. The Farmington Chaco facility is a "source" for water contaminants that may be discharged directly or indirectly into surface or groundwater, as defined in New Mexico Water Quality Act Section 74-6-2.M (defining "source" as "...a building, structure, facility or installation from which there is or may be a discharge of water contaminants directly or indirectly into water.").

36. The initial formal notice issued to Chaco pursuant to WQCC Rules

20.6.2.3104 and 20.6.2.3106 NMAC, dated 4/2/02, required Chaco to submit a discharge permit application within 120 days of receipt as provided by WQCC Rules. The notice was received by Chaco on 4/5/02, and the deadline for submission was therefore July 31, 2002. Chaco violated WQCC Rules 20.6.2.3104 and 20.6.2.3106 NMAC by failing to submit a full and complete discharge permit application on or before the July 31, 2002 deadline as required. Chaco has remained in violation of WQCC Rules since the disregarded July 31, 2002 deadline, and has now been in violation a total of 6 years and 7 months since that date.

37. The NOV issued in September of 2002 set a deadline of October 28, 2002 for Chaco to comply and submit a discharge permit application as required by the WQCC Rules. Chaco again failed to meet this deadline, and a total of 6 years and 4 months has now passed since Chaco disregarded the October 28, 2002 deadline.

38. The NOV issued in September of 2005 by the OCD Director set an updated deadline of September 26, 2005 for Chaco to comply and submit a discharge permit application as required by WQCC Rules, specifically reiterating the WQCC requirements and the potential consequences for noncompliance should Chaco continue to refuse to comply. Chaco disregarded this deadline as well, and its unpermitted operations have now persisted for 3 years and 5 months beyond the deadline set by the September 2005 NOV.



39. Chaco is in longstanding and continued violation of WQCC Rules 20.6.2.3104 and 20.6.2.3106 due to its persistent failure and refusal to submit, obtain and maintain a discharge permit for its Farmington facility. Chaco has therefore been in violation of the New Mexico Water Quality Act ("WQA"), NMSA 1978, §§ 74-6-1 to 74-6-17 for over six years, and continues to remain in violation of the New Mexico WQA.

#### **IV. COMPLIANCE ORDER**

40. Chaco shall comply with the following schedule of compliance, and submit for OCD approval the following documents and/or perform the following tasks by the deadlines specified below:

- a. Chaco shall, **within fifteen (15) days of this Order becoming Final** (as provided in Section VII, below) submit/resubmit a full and complete application for discharge permit.
  - i. The submission shall be consistent with the Discharge Plan Application Guidelines previously provided to Chaco.
  - ii. Required components of the submission are outlined within the application itself at Points 1 through 13.
  - iii. Chaco's submission shall include all properties associated with Chaco Chemical Company's operations and shall include not only the property designated in its previous submission to the OCD but also the property being used by Chaco for empty-barrel storage located to the west of the property identified in the previous submission.
- b. **Within fifteen (15) days of this Order becoming Final** (as provided in Section VII, below), Chaco shall submit the information required to render its application "administratively complete" as provided by WQCC Rule 20.6.2.3108 NMAC.
- c. **Within fifteen (15) days of this Order becoming Final** (as provided in Section VII, below), Chaco shall provide the OCD with a preliminary list identifying all landowners within a 1/3 mile

radius of the discharge location. The list should identify all known landowners currently known to Chaco to meet this criteria and should specify Chaco's plan and an estimated timeframe for ascertaining the identity of any as-yet unidentified landowners within that 1/3 mile radius.

- d. After submitting the discharge permit application, Chaco shall ensure that it is available to the OCD should questions or concerns arise during the permit application review process. Upon the request of the OCD, Chaco shall submit additional information requested by the OCD for purposes of assisting in the processing of the permit application.
- e. Upon issuance of a discharge permit by the OCD, Chaco shall at all times abide by the conditions of that permit.

## V. CIVIL PENALTY

### A. CIVIL PENALTY ASSESSMENT RELATING BACK TO INITIAL NOTICE ISSUED TO CHACO APRIL 2, 2002

41. Separate from and in addition to the civil penalty set forth below in Section V(B), and specifically relating to the Respondent's failure to comply with WQCC Rules following the issuance of formal notification on 4/2/02 that a discharge permit application was required pursuant to WQCC Rules 206.2.3104 and 20.6.2.3106 NMAC, the OCD hereby assesses a civil penalty against the Respondent in this Order of \$79,000. This penalty amount is derived and calculated as follows:

- \$1,000 per month of violation of the WQA/WQCC since the passing of the **July 31, 2002** deadline for submission of a discharge permit application as established by the notification issued on April 2, 2002. The total time elapsed to date since the July 31, 2002 deadline is **79 months**, for a total of \$79,000.

UNLESS RESPONDENT REQUESTS A HEARING AND FILES AN ANSWER AS PROVIDED IN SECTION VI, BELOW, THE PENALTY PROPOSED IN THIS ORDER SHALL BE DUE AND PAYABLE WITHOUT FURTHER PROCEEDING WITHIN NINETY (90) DAYS OF THE DATE OF RESPONDENT'S RECEIPT OF THIS ORDER.

42. The \$79,000 penalty assessment identified in Paragraph 41, above, relates only to the specific violation described: the violation by Chaco of WQCC Rules 3104 and 3106 beginning on July 31, 2002 and continuing to the present (currently a total of 79 months).

43. If Chaco fails to comply with the civil penalty assessment set forth above the Director of OCD may assess an additional civil penalty of up to \$10,000 for each day of noncompliance with the Order. NMSA 1978, § 74-6-10(F)(1).

B. CIVIL PENALTY ASSESSMENT RELATING BACK TO SUBSEQUENT NOTICE/NOTICE OF VIOLATION ISSUED ON SEPTEMBER 8, 2005

44. Separate from and in addition to the civil penalty set forth above in Section V(A), and specifically relating to the Respondent's renewed and continued failure and refusal to comply with WQCC Rules following the issuance of a subsequent formal notification that a discharge permit application was required pursuant to WQCC Rules 206.2.3104 and 20.6.2.3106 NMAC, such notification being issued in the form of a Notice of Violation sent to Respondent on September 8, 2005, the OCD hereby assesses a civil penalty against the Respondent in this Order of \$410,000. This penalty amount is derived and calculated as follows:

- \$10,000 per month of violation of the WQA/WQCC since the passing of the **September 26, 2005** deadline for submission of a discharge permit application as established by the subsequent formal notification and Notice of Violation issued on September 8, 2005. The total time elapsed to date

---

*Chaco Chemical Co. LLC*

*Administrative Compliance Order -NM-OCD 2009-01,*

*Page 16 of 20*

*March 13, 2009*

since the September 26, 2005 deadline is **41 months**, for a total of **\$410,000**.

**UNLESS RESPONDENT REQUESTS A HEARING AND FILES AN ANSWER AS PROVIDED IN SECTION VI, BELOW, THE PENALTY PROPOSED IN THIS ORDER SHALL BE DUE AND PAYABLE WITHOUT FURTHER PROCEEDING WITHIN NINETY (90) DAYS OF THE DATE OF RESPONDENT'S RECEIPT OF THIS ORDER.**

45. The \$410,000 penalty assessment identified in Paragraph 44, above, relates only to the specific violation described: the renewed and continued violation by Chaco of WQCC Rules 3104 and 3106 as calculated beginning on September 26, 2005 and continuing to the present (currently a total of 41 months).

46. If Chaco fails to comply with the civil penalty assessment set forth above the Director of OCD may assess an additional civil penalty of up to \$10,000 for each day of noncompliance with the Order. NMSA 1978, § 74-6-10(F)(1).

## **VI. RIGHT OF OPERATOR TO ANSWER AND REQUEST A HEARING**

47. Pursuant to Section 74-6-10.G of the WQA, Respondent has the right to answer this Order and to request a hearing. If the Respondent:

- (a) contests any material or legal matter upon which the Order is based,
- (b) contends that the Respondent is entitled to prevail as a matter of law, or
- (c) otherwise contests the appropriateness of the Order:

**The Respondent may request a hearing by mailing or delivering within thirty (30) days of receipt of this Order, a written "Request for Hearing and Answer to the Order" to:**

**WATER QUALITY CONTROL COMMISSION HEARING CLERK**  
**HAROLD RUNNELS BUILDING, RM. 2050 SOUTH**  
**1190 SAINT FRANCIS DRIVE**  
**P.O. BOX 26110**  
**SANTA FE, NEW MEXICO 87502-6110**

The Respondent must attach a copy of this Order to the Request for Hearing.

48. The Respondent's Answer shall clearly and directly admit, deny or explain each of the factual allegations contained in the Order with regard to which the Respondent has any knowledge. Where the Respondent has no knowledge of a particular factual allegation, the Respondent shall so state, and the Respondent may deny the allegation on that basis. **Any allegation of the Order not specifically denied shall be deemed admitted.**

49. The Respondent's Answer shall also include any affirmative defense upon which the Respondent intends to rely. **Any affirmative defense not asserted in the Answer, except a defense asserting lack of subject matter jurisdiction, shall be deemed waived.**

## **VII. FINALITY OF ORDER**

50. This Order shall become final unless the Respondent files a Request for Hearing and Answer with the WQCC within thirty (30) days of receipt of this Order. Failure to file an Answer constitutes an admission of all facts alleged in the Order and a waiver of the right to a hearing under Section 74-6-10(G) of WQA concerning this Order.

**UNLESS THE RESPONDENT REQUESTS A HEARING AND FILES AN ANSWER AS OUTLINED ABOVE, THE SCHEDULE OF COMPLIANCE SET FORTH IN THIS ORDER SHALL BECOME FINAL.**

## **VIII. SETTLEMENT CONFERENCE**

51. Whether or not Respondent requests a hearing and files an Answer, the Respondent may confer with OCD concerning settlement. OCD encourages

settlement consistent with the provisions and objectives of the WQA and applicable WQCC rules. Settlement discussions do not extend the thirty (30) day deadline for filing the Respondent's Answer and Request for Hearing, or alter the deadlines for compliance with this Order. Settlement discussions may be pursued as an alternative to and simultaneously with the hearing proceedings. The Respondent may appear at the settlement conference independently and/or be represented by legal counsel.

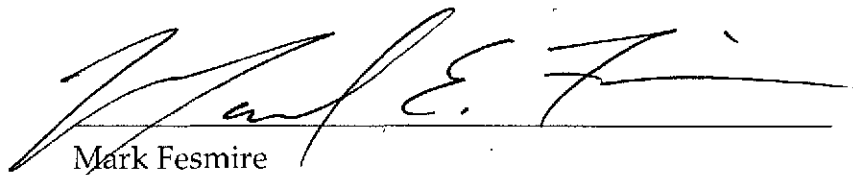
52. Any settlement reached by the parties shall be finalized by written stipulated final order. A stipulated final order must resolve all issues raised in the Order, must be approved by the Director of OCD, shall be final and binding all parties to the Order, and shall not be appealable.

53. To explore the possibility of settlement in this matter, contact Mikal Altomare, Assistant General Counsel, Office of General Counsel, New Mexico Oil Conservation Division, 1220 St. Francis Drive, Santa Fe, New Mexico 87505, 505-476-3480.

54. Compliance with the requirements of this Order does not relieve Respondent of the obligation to comply with all other applicable laws and regulations.

## IX. TERMINATION OF ORDER

55. This Order shall terminate when Respondent certifies that all requirements of this Order have been met, and OCD has approved such certification, or when the Director of OCD approves a stipulated final order.

A handwritten signature in black ink, appearing to read "Mark E. Fesmire", is written over a horizontal line.

Mark Fesmire  
Director- Oil Conservation Division

**STATE OF NEW MEXICO  
NEW MEXICO OIL CONSERVATION DIVISION**

**IN THE MATTER OF  
COMPLIANCE ORDER  
NM-OCD 2009-01,  
CHACO CHEMICAL  
COMPANY, LLC,  
RESPONDENT.**

**ADMINISTRATIVE COMPLIANCE ORDER- EXHIBITS**

- **Exhibit A** - 4/26/95 certified letter from OCD to Chaco.
- **Exhibit B** - 4/26/95 letter with handwritten notations made following 5/24/95 inspection.
- **Exhibit C** - 4/2/02 certified letter from OCD to Chaco.
- **Exhibit D** - Photos from 3/5/02 inspection.
- **Exhibit E** - 9/16/02 certified letter from OCD to Chaco.
- **Exhibit F** - 9/24/02 NOV sent by certified mail to Chaco.
- **Exhibit G** - 2/18/03 certified letter from OCD to Chaco.
- **Exhibit H** - 9/8/05 NOV sent by certified mail to Chaco.
- **Exhibit I** - Summary Report and Photos from 11/20/08 OCD inspection of Chaco facility.
- **Exhibit J** - 11/25/08 email from L. Lowe of OCD Environmental Bureau to A. Wiggins of
- **Exhibit K** - 12/9/08 letter sent by certified mail to Chaco, exclusive of referenced attachments.
- **Exhibit L** - Return receipt card for certified letter sent 12/9/08 to Chaco, signed by C. Wiggins dated 12/12/08.
- **Exhibit M** - Discharge application submitted by Chaco 1/16/09
- **Exhibit N** - 1/30/09 certified letter from OCD to Chaco.
- **Exhibit O** - Return receipt card for certified letter sent 1/30/09 to Chaco signed by C. Wiggins dated 2/3/09.





STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

April 26, 1995

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-765-962-672**

Mr. Anthony T. Archuleta  
CHACO CHEMICAL COMPANY, Inc.  
P.O. Box 3526  
Farmington, NM 87499

**RE: Discharge Plan Requirement Inspection  
Farmington Facility  
San Juan County, New Mexico**

Dear Mr. Archuleta:

Outlined below are the observations and findings made by the NMOCD team that recently inspected the Chaco Chemical Company, Inc. Facility at 205 Elm in Farmington, New Mexico.

1. Few lab tests done at the facility.
2. Sewage goes to city of Farmington POTW.
3. Lab sample bottles for field testing re-used.
4. Lab waste that does accumulate is not allowed to go down the sink - is used as flush.  
Note: Drums that store the waste on site need some sort of secondary containment and also need to be labelled as NON-HAZARDOUS.
5. Drum storage area needs some sort of impermeable containment underneath it.
6. Empty drums need to be stored on their side with the bungs in place and horizontal to the ground.

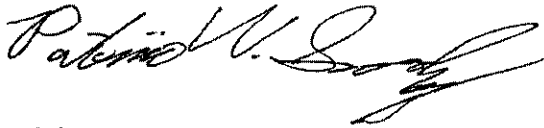
NM-OCD 2009-01  
EXHIBIT A

Mr. Anthony T. Archuleta  
April 26, 1995  
Page 2

7. No automotive servicing is done at the facility.
8. Make certain all drums are properly labelled.
9. At this point NMOCD will not require Chaco Chemical to prepare a Discharge plan; However should Chaco Chemical not implement the suggestions made by the NMOCD team a permit will be required. Further at some point in time NMOCD may find it appropriate to require a Discharge plan from Chaco Chemical.

If you any further questions or comments please feel free to call me at (505)-827-7156.

Sincerely,

A handwritten signature in cursive script, appearing to read "Patricio W. Sanchez".

Patricio W. Sanchez  
Petroleum Engineer

XC Denny Foust



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

April 26, 1995 - May 24, 95 inspection  
1:20 pm

**CERTIFIED MAIL**

**RETURN RECEIPT NO. Z-765-962-672**

Mr. Anthony T. Archuleta  
CHACO CHEMICAL COMPANY, Inc.  
P.O. Box 3526  
Farmington, NM 87499

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Farmington Facility  
San Juan County, New Mexico**

Dear Mr. Archuleta:

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1. Few lab tests done at the facility.
2. Sewage goes to city of Farmington POTW.
3. Lab sample bottles for field testing re-used.
4. Lab waste that does accumulate is not allowed to go down the sink - is used as flush.  
Note: Drums that store the waste on site need some sort of secondary containment and also need to be labelled as NON-HAZARDOUS. — Drums labelled and stored inside of cut-off 55 gallon drums — acting as containment.
5. Drum storage area needs some sort of impermeable containment underneath it. — working on Drum Area — with Black plastic.
6. Empty drums need to be stored on their side with the bungs in place and horizontal to the ground. Drums stored properly



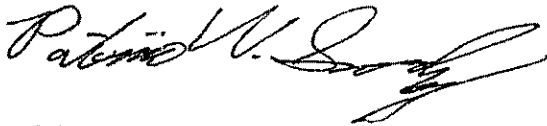
NM-OCD 2009-01  
EXHIBIT B

Mr. Anthony T. Archuleta  
April 26, 1995  
Page 2

7. No automotive servicing is done at the facility.
8. Make certain all drums are properly labelled. — *Still needs to work on labelling.*
9. At this point NMOCD will not require Chaco Chemical to prepare a Discharge plan; However should Chaco Chemical not implement the suggestions made by the NMOCD team a permit will be required. Further at some point in time NMOCD may find it appropriate to require a Discharge plan from Chaco Chemical.

If you any further questions or comments please feel free to call me at (505)-827-7156.

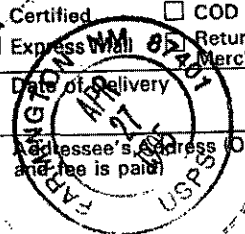
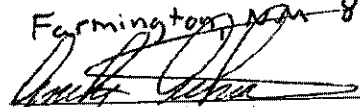
Sincerely,



Patricio W. Sanchez  
Petroleum Engineer

— overall looks like he is making an effort to implement suggestions.

XC Denny Foust

<b>Is your RETURN ADDRESS completed on the reverse side?</b>	<b>SENDER:</b> <ul style="list-style-type: none"><li>• Complete items 1 and/or 2 for additional services.</li><li>• Complete items 3, and 4a &amp; b.</li><li>• Print your name and address on the reverse of this form so that we can return this card to you.</li><li>• Attach this form to the front of the mailpiece, or on the back if space does not permit.</li><li>• Write "Return Receipt Requested" on the mailpiece below the article number.</li><li>• The Return Receipt will show to whom the article was delivered and the date delivered.</li></ul>	I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
	3. Article Addressed to: Mr. Anthony T. Archuleta Chaco Chemical Company, Inc. P.O. Box 3526 Farmington, NM 87499	4a. Article Number Z-765-962-672	
	4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	7. Date of Delivery	
	5. Signature (Addressee) 	8. Addressee's Address (Only if requested and fee is paid)	
6. Signature (Agent)			

PS Form 3811, December 1991 ☆ U.S.G.P.O.: 1992-307-530 **DOMESTIC RETURN RECEIPT**



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Betty Rivera**

Cabinet Secretary

**Lori Wrotenbery**

Director

Oil Conservation Division

April 2, 2002

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7923-4191**

Mr. Anthony T. Archuleta  
Chaco Chemical Co., Inc.  
P.O. Box 3526  
Farmington, NM 87499

**RE: DISCHARGE PLAN REQUIREMENT  
FARMINGTON SERVICE FACILITY  
SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Archuleta:

The New Mexico Oil Conservation Division (OCD) conducted an inspection of your Farmington service facility in April, 1995 and again on March 5, 2002. The following is a listing of deficiencies noted during the inspection:

1. An NMOCD inspection made in 1995 revealed certain conditions that should have been addressed. This information was conveyed to you by our letter of April 26, 1995. These concerns have only partially been addressed.
2. Our inspection on March 5, 2002 showed the following:
  - a. Some drums in yard were not stored properly
  - b. The plastic liner installed under the elevated drum rack is damaged and does not provide adequate protection against chemicals stored on the rack from reaching the ground.
  - c. General housekeeping of facility is below our normal standards.
  - d. Unidentified 5-gal containers stored in office should be stored in a more suitable facility with containment.
  - e. Saddle tanks (unlabeled) with no containment.
  - f. Some labeled containers being used for a product not specified on the label.

NM-OCD 2009-01  
EXHIBIT C

- g. Numerous small bottles of a wide variety of chemicals (some unknown) not stored properly and out of date.
- h. Unlabeled vials in refrigerator.

Based on inspection deficiencies and pursuant to the provisions of the New Mexico Water Quality Control Commission (WQCC) Regulations, you are hereby notified that the filing of a discharge plan is required for your existing Farmington Service Facility located at 205 Elm St., Farmington, San Juan County, New Mexico.

This notification of discharge plan requirement is pursuant to 20 NMAC 6.2.3104 and 20 NMAC 6.2.3106 of the WQCC Regulations. The discharge plan, defined in 20 NMAC 6.2.1101.P. of the WQCC Regulations, should cover all discharges of effluent or leachate at the facility or adjacent to the facility site. Included in the application should be plans for controlling spills and accidental discharges at the facility (including detection of leaks in below grade sumps, buried underground process tanks and/or piping), and closure plans for any pits or ponds whose use will be discontinued.

Also enclosed are an application and a copy of OCD Guidelines for the Preparation of Discharge Plans at Oil Field Service Facilities. Two copies of your discharge plan application are to be submitted to the Santa Fe office and one copy to the Aztec office for review purposes.

20 NMAC 6.2.3106.A. of the regulations requires submittal of the discharge plan application within 120 days of receipt of this notice unless an extension of this time period is sought and approved for good cause. 20 NMAC 6.2.3106.A. also allows discharges to continue without an approved discharge plan until 240 days after written notification by the Director of the OCD that a discharge plan is required. An extension of this time may be sought and approved for good cause.

Pursuant to the 20 NMAC 6.2.3114 "every billable facility submitting a discharge plan for approval, modification or renewal shall pay the fees specified in this section to the Water Quality Management Fund".

Every billable facility submitting a new discharge plan will be assessed a fee equal to the filing fee plus either a flat fee or discharge fee. The filing fee is \$100.00 and shall be submitted with the discharge plan application (nonrefundable). The remainder of the "total fee" for oil and gas service companies falls under the "flat fee" category and is equal to \$1700.00. The flat fee for an approved discharge plan may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due at the time of approval.

<p><b>Please make all checks payable to: Water Management Quality Management Fund</b> <b>C/o: Oil Conservation Division</b> <b>1220 South St. Francis Drive</b> <b>Santa Fe, New Mexico 87505.</b></p>
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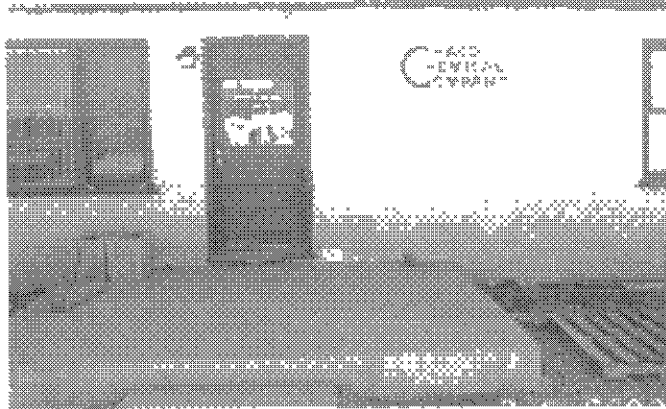
If there are any questions on this matter, please feel free to contact me at (505) 476-3490.

Sincerely,

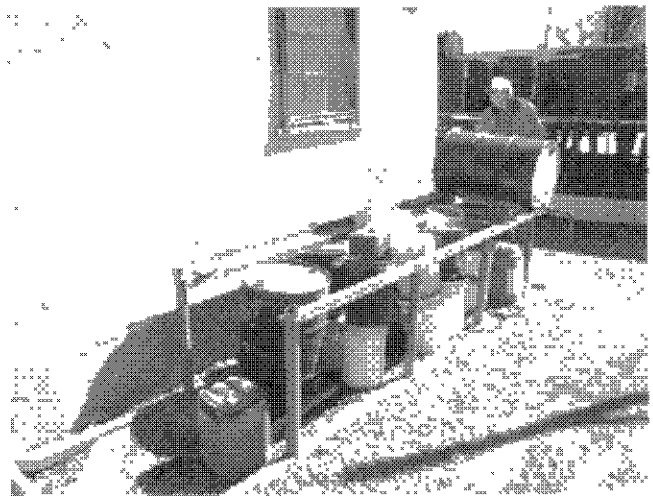
Roger C. Anderson  
Environmental Bureau Chief

RCA/eem

xc: Denny Foust - OCD Aztec Office



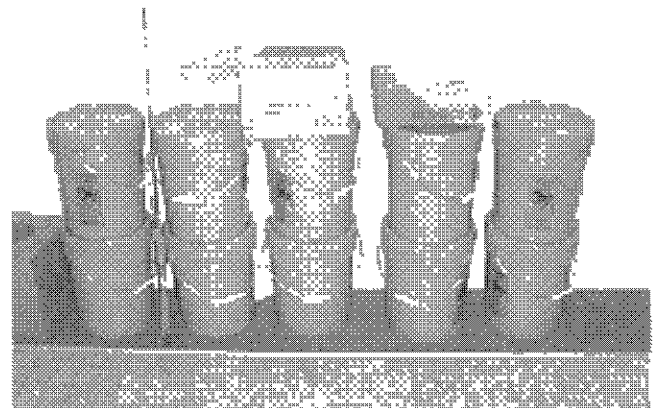
Claco Chemical Company Farmington  
Office area



Drum Storage Area in yard of Claco Chemical  
No containment.



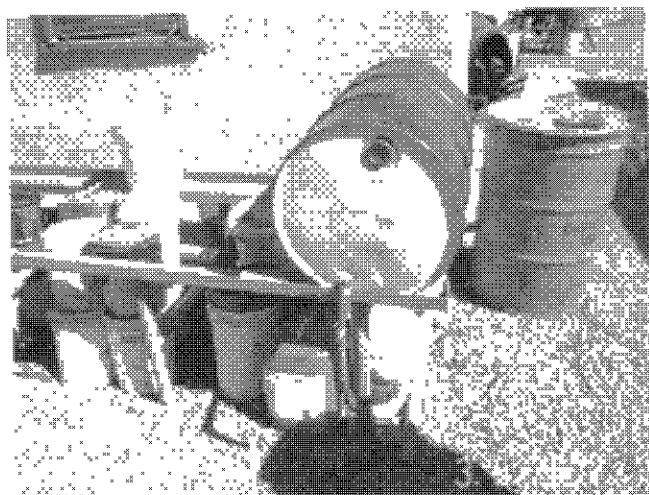
Shelving in office area containing numerous  
chemicals, some identified (labeled) and some not.  
Some chemicals very old (1936-1987).



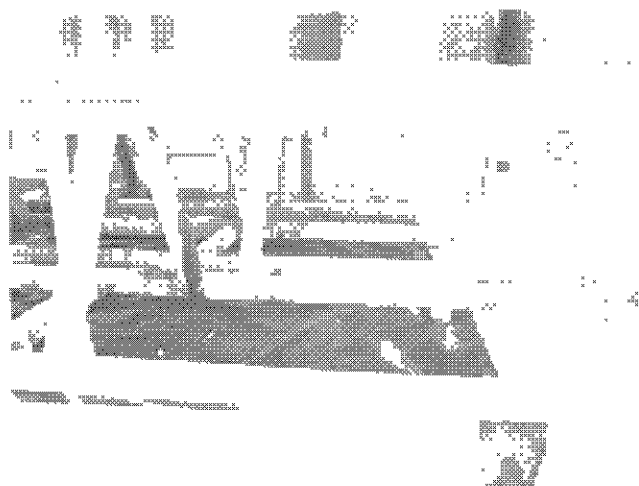
Chemicals stored in 5-gal. Containers in office area

NM-OCD 2009-01  
EXHIBIT D





Chemical storage area in yard of Chaco Chemical



Elevated rack for chemical drum storage at Chaco Chemical. Note plastic liner beneath



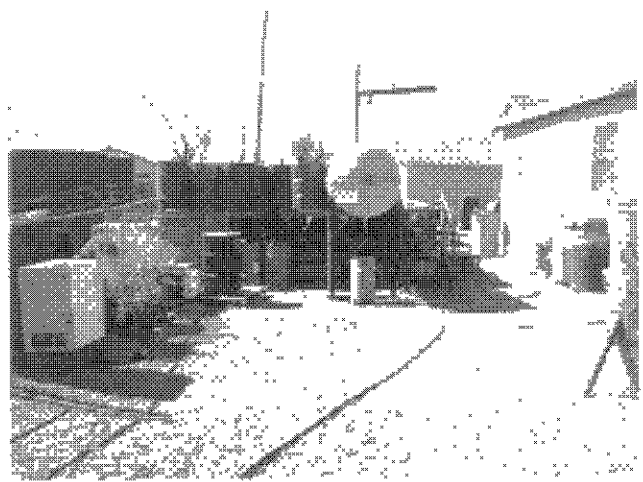
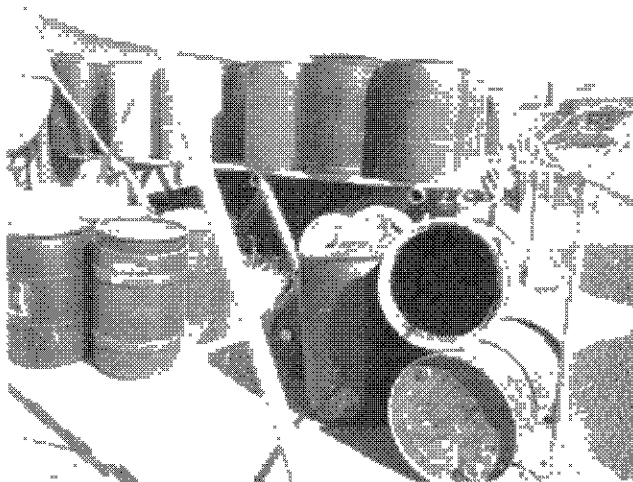
Tank area - Chaco Chemical - Farmington  
Unknown chemicals - No Containment



Different view under elevated drum storage deck. Note that plastic liner does not extend completely to limits of deck area

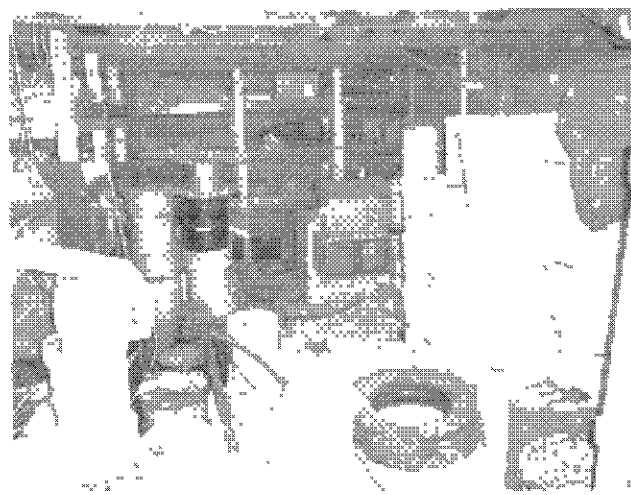


Views of Chaco Chemical Co. yard in Farmington

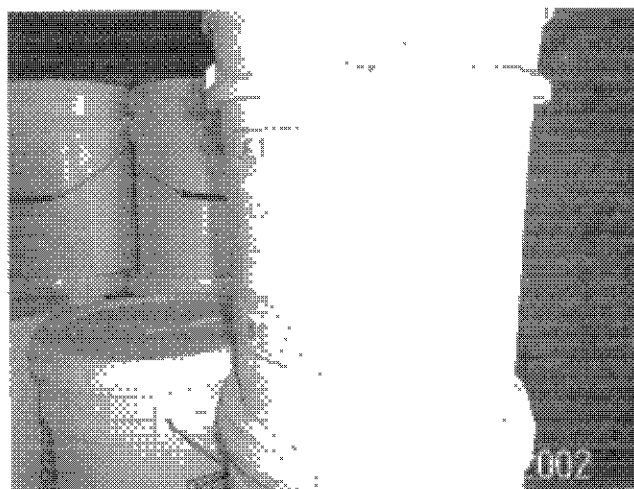




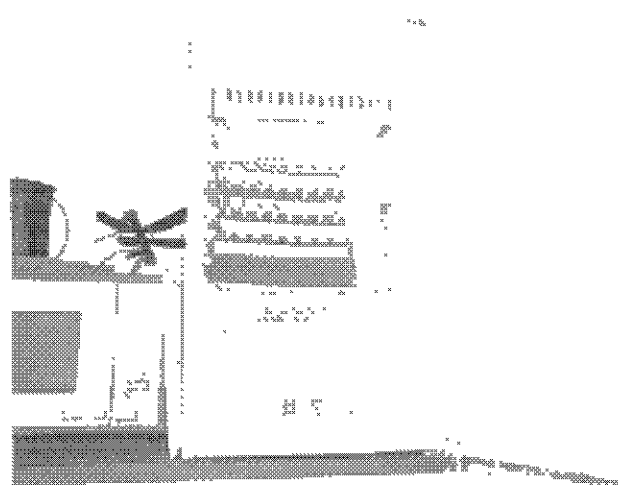
Storage shed in Chaco Chemical's yard



Inside view of storage shed Chaco Chemical



Example of materials stored in storage shed. This shed contained approximately 30 - 40 5-gal. Containers. One container was labeled HCl, but according to operator, did not contain HCl.



Refrigerator inside office area of Chaco Chemical. This refrigerator contained numerous small vials, none of which were labeled.



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**BETTY RIVERA**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
Oil Conservation Division

September 16, 2002

**CERTIFIED MAIL**  
**RETURN RECEIPT NO: 3929-9673**

Mr. Anthony T. Archuleta  
Chaco Chemical Co., Inc.  
P.O. Box 3526  
Farmington, NM 87499

**RE: NOTICE OF VIOLATION: Chaco Chemical Co. Facility, Farmington, New Mexico**

Dear Mr. Archuleta:

On April 2, 2002, the New Mexico Oil Conservation Division (OCD) notified Chaco Chemical Co., Inc. of deficiencies at its Farmington facility. The OCD required that Chaco submit an application for a Discharge Permit pursuant to the provisions of the New Mexico Water Quality Control Commission regulations.

To date the OCD has not received the application as required. As a result, Chaco Chemical Co., Inc. is in violation of 20 NMAC 6.2.3106.A. of the regulations. In order to correct this violation, the OCD requires that Chaco Chemical Co., Inc. submit, by November 9, 2002, a Discharge Permit application as set forth in our letter dated April 2, 2002, certified mail receipt number 7923-4191. Failure to provide this application may result in Chaco Chemical Co. Inc. being summoned to a show cause hearing before a Division Hearing Examiner where the Division staff will recommend issuance of a formal order requiring compliance with OCD rules. Such an order may include imposition of civil penalties.

If you have any questions, please contact Ed Martin of my staff at (505) 476-3492.

Sincerely,

Roger C. Anderson  
Environmental Bureau Chief

NM-OCD 2009-01  
EXHIBIT E

xc: Frank Chavez, OCD Aztec District Office  
David K. Brooks, OCD Legal Counsel

U.S. Postal Service  
CERTIFIED MAIL RECEIPT

(Postage & Mail Only - No Insurance Coverage Provided)

OFFICIAL USE

Postage

Certified Fee

Return Receipt Fee  
(Endorsement Required)

Restricted Delivery Fee  
(Endorsement Required)

Total Postage & Fees

Sent To

ANTHONY T. ARCHULETA / Chaco Chem.

Street, Apt. No.,

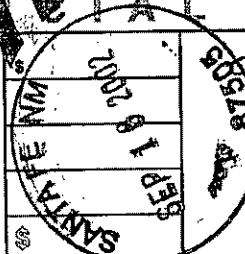
or PO Box No. P.O. Box 3526

City, State, ZIP+4

FARMINGTON, NM 87499

PS Form 3800, January 2001

See Reverse for Instructions



Postmark  
Here

CW-348 EP

7001 1940 0004 3929 9673



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Betty Rivera  
Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

September 24, 2002

**CERTIFIED MAIL**  
**RETURN RECEIPT NO: 3929-9680**

Mr. Anthony Wiggins  
Chaco Chemical Co., Inc.  
P.O. Box 3526  
Farmington, NM 87499

**RE: NOTICE OF VIOLATION: Chaco Chemical Co. Facility, Farmington, New Mexico**

Dear Mr. Wiggins:

This letter is in response to our telephone conversation today concerning our letter to you dated April 2, 2002. Attached is a copy of this letter along with a copy of the certified mail receipt #7923-4191 signed by Christine Wiggins on April 5, 2002.

Per paragraph 2 of that letter, Chaco Chemical Co., Inc. is required to file an application for a discharge plan. This discharge plan constitutes a permit to operate Chaco Chemical Co.'s facility at 205 Elm St., Farmington, San Juan County, New Mexico, and is required by the regulations noted in paragraph 3.

Also attached is an application form for the above permit. **This application must be completed and submitted to the New Mexico Oil Conservation Division by October 28, 2002.** Fees associated with this permit are: \$100.00 filing fee plus \$1,700.00 flat fee. Total due with application: \$1,800.00.

If you have any questions, please contact Ed Martin of my staff at (505) 476-3492.

Sincerely,

Roger C. Anderson  
Environmental Bureau Chief

NM-OCD 2009-01  
EXHIBIT F

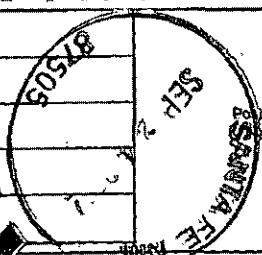
xc: Frank Chavez, OCD Aztec District Office  
David K. Brooks, OCD Legal Counsel

U.S. Postal Service  
CERTIFIED MAIL RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

0996 6246 4000 0467 1002

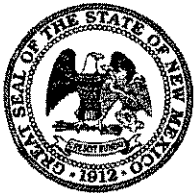
Postage	\$	
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees		



EW 84348

Sent To  
ANTHONY WILKINS Chaco Chem. Co.  
Street, Apt. No.,  
or PO Box No. P.O. Box 526  
City, State, ZIP+4 FARMINGTON, NM 87499

PS Form 3800, January 1991 Edition See Reverse for Instructions



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenberg**

Director

**Oil Conservation Division**

February 18, 2003

**CERTIFIED MAIL**

**RETURN RECEIPT NUMBER: 3929-9789**

Mr. Anthony T. Archuleta  
Chaco Chemical Co., Inc.  
P.O. Box 3526  
Farmington, NM 87499

Dear Mr. Archuleta:

Following is a history of the inspections and correspondence concerning Chaco Chemical:

1. April 26, 1995. Letter to Mr. Anthony T. Archuleta, certified mail #Z-765-962-672. This letter recapped infractions noted during a physical inspection of the property. A copy of this letter is attached. No permit was recommended at that time as long as the suggestions in the letter were implemented. See item 9 of letter.
2. A subsequent inspection of May 24, 1995 revealed that Chaco staff was apparently making an effort to implement the suggestions shown in the April 26, 1995 letter.
3. OCD personnel again inspected Chaco's facility on March 5, 2002. At that time it was noted that Chaco was backsliding on some of the efforts they had previously made. As a result of this inspection, it was determined that Chaco Chemical would be required to operate under a discharge permit. A copy of the letter dated April 2, 2002, notifying you of this requirement is attached. See first full paragraph on page 2 of letter. A discharge permit application should have been received from you by August 2, 2002. Chaco Chemical did not submit the required application.

NM-OCD 2009-01

EXHIBIT G



4. September 16, 2002. A Notice of Violation was sent to Chaco Chemical certified mail receipt #3929-9673. This means that as of that date Chaco Chemical is in violation of state statutes as shown in the notice of violation. Copy attached.
5. September 24, 2002. A second copy of the notice of violation was sent to Chaco Chemical certified mail receipt #3939-9680. Copy attached.

The New Mexico Oil Conservation Division regulates oilfield service companies such as Chaco Chemical.

Please call me at 505-476-3492 so that we can discuss the elements of this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ed Martin", with a horizontal line extending from the end of the signature.

Ed Martin  
Environmental Bureau

U.S. Postal Service  
CERTIFIED MAIL RECEIPT  
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICE RECEIVED

Postage \$	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	

FEB 19 2003  
U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
DIVISION

Sent to  
**CHACO Chemical**  
Street, Apt. No.,  
or PO Box No. **P.O. Box 15526**  
City, State, ZIP+4  
**FARMINGTON, NM 87499**

PS Form 3800 January 2001 See Reverse for Instructions

7001 1940 0004 3929 9789

64348 60



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

September 8, 2005

Mr. Anthony T. Archuleta  
Chaco Chemical Co., Inc.  
P.O. Box 3526  
Farmington, New Mexico 87499

**CERTIFIED MAIL**

**Return Receipt**

**No. 7001-1940-0004-7920-7720**

**Re: Notice of Violation**

Dear Mr. Archuleta:

Pursuant to NMSA 1978, Section 70-2-12(22) and Rule 19.15.1.12 NMAC, the New Mexico Oil Conservation Division (hereinafter, "OCD") has the authority and duty to regulate oil field service companies by enforcing relevant state statutes and OCD rules. Under NMSA 1978, Section 74-6-10, it is authorized to enforce New Mexico Environment Department rules and regulations pertaining to the protection of groundwater. See NMSA 1978, Section 74-6-2.

As you are aware, over the past several years, the OCD has conducted several investigations of Chaco Chemical Company, Inc.'s (hereinafter, "Chaco") facility located at 205 Elm Street, Farmington, New Mexico. Many deficiencies were found. The OCD notified Chaco of these deficiencies. These deficiencies indicate a potential for accidental leaks and spills from inadequate and or improper operation of the facility, which leaks and spills may result in polluting ground water.

The potential for leaks and spills triggered a requirement, under Rule 20.6.2.3104, that Chaco obtain a discharge permit. Chaco ignored this requirement, which is a violation of the Rule. Unfortunately, the potential for leaks and spills is now a reality, as documented in the OCD's March 2005 inspection.

The OCD is now requiring Chaco to remedy ten (10) years of on-going deficiencies, including applying for a discharge permit, or face severe penalties.

A summary of prior deficiencies, believed to be on going to this day, is as follows:

- A. By letter dated April 26, 1995 you were advised of a physical inspection conducted earlier that month. Several deficiencies were noted:

**NM-OCD 2009-01**

**EXHIBIT H**

Anthony T. Archuleta  
Chaco Chemical Co., Inc.  
September 8, 2005  
Page 2

1. Drums that store waste on site need some sort of secondary containment.
2. Drum storage area needs an impermeable containment underneath it.
3. Empty drums need to be stored on their side with the bungs in place and horizontal to the ground.
4. Make certain all drums are properly labeled.

These deficiencies violate Rule 19.15.1.12, NMAC, which provides, in pertinent part, that "[a]ll operators, ... service companies ... or other persons shall at all times conduct their operations ... in a manner that will prevent waste of oil and gas, the contamination of fresh waters and shall not wastefully utilize oil or gas, or allow either to leak or escape from a natural reservoir, or from wells, tanks, containers, pipe or other storage, conduit or operating equipment."

B. By letter dated April 2, 2002, you were advised that on March 5, 2002 the OCD conducted a physical inspection of Chaco. Several deficiencies were noted:

1. Some drums in yard were not properly stored.
2. The plastic liner installed under the elevated drum rack is damaged and does not provide adequate protection against chemicals stored on the rack from reaching the ground.
3. General housekeeping of the facility is below normal standards.
4. Unidentified 5-gallon containers stored in the office should be stored in a more suitable facility with containment.
5. Saddle tanks (unlabeled) with no containment.
6. Some labeled containers being used for a product not specified on the label.
7. Numerous small bottles of a wide variety of chemicals (some unknown) not stored properly and out of date.
8. Unlabeled vials in refrigerator.

Again, these deficiencies violate Rule 19.15.1.12, NMAC.

By the same letter, Chaco was notified it was also in violation of Rules 20.6.2.3104 and 20.6.2.3106 NMAC. Rule 3104 provides that "no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit." This rule applies to actual or potential discharges, which makes it applicable to Chaco and a requirement that it apply for a permit. Rule 3106 requires that Chaco submit a discharge plan for approval, with its permit application.

Anthony T. Archuleta  
Chaco Chemical Co., Inc.  
September 8, 2005  
Page 3

The discharge plan is defined in 20.6.2.1101P NMAC. It covers all discharges of effluent or leachate at or adjacent to a facility. The application requires that Chaco present a plan for controlling spills and accidental discharges at the facility (including detection of leaks in below grade sumps, buried underground process tanks and/or piping), and closure plans for any pits or ponds that will no longer be in use.

Chaco failed to respond to OCD's letter.

- C. By letter dated September 16, 2002 (certified mail receipt 3929-9673), Chaco received a third notice of violation, this time for failure to file a discharge plan. This was a continuing violation of Rules 20.6.2.3104 and 20.6.2.3106 NMAC.

In a subsequent phone conversation, Chaco denied receiving the September 16, 2002 letter. Therefore, OCD mailed Chaco a second letter dated September 24, 2002 (certified mail receipt 3929-9680), with a copy of the September 16<sup>th</sup> letter attached. The second letter reiterated that a discharge permit is required for the facility.

Still no action was taken by Chaco.

- D. In yet another attempt to get Chaco to correct deficiencies, a letter dated February 18, 2003 (certified mail receipt 3929-9789) was sent recapping the results of the above inspections. Copies of pertinent letters and inspection results were attached.

Again, Chaco failed to respond.

- E. On March 23, 2005 Jack Ford, OCD, performed another inspection of the Chaco facility. The following deficiencies were noted to Chaco:

1. Contamination observed on ground surface.
2. Drum arrangement / condition does not meet specs.
3. Drums not in containment and unlabeled.
4. Empty drums improperly stored.
5. Unknown chemical residue on ground.

As usual, no response to these deficiencies was received from Chaco.

Not only do the latest deficiencies violate OCD Rule 19.15.1.12 NMAC, the ground surface contamination is a violation of Rules 20.6.2.3104 and 20.6.2.1201 NMAC, promulgated pursuant to the Water Quality Act.

Anthony T. Archuleta  
Chaco Chemical Co., Inc.  
September 8, 2005  
Page 4

Rule 3104, as described above, prohibits discharges of effluent or leachate that may enter the ground water. Rule 1201 provides that "notice regarding discharges from facilities for the production, refinement, pipeline transmission of oil and gas or products thereof, the oil field service industry, oil field brine production wells, geothermal installations and carbon dioxide facilities shall be filed ... with the Oil Conservation Division." No notice of the prohibited discharge was received from Chaco.

It is clear that conditions at the facility have not improved over the past ten years, nor has Chaco applied for a discharge permit. These violations cannot continue.

Therefore, on September 26, 2005 the OCD will conduct another inspection of the facility. If the above deficiencies still exist, a compliance order requiring immediate compliance will be issued and civil penalties of up to \$10,000.00 per day will be assessed. See Section 74-6-10(A). Likewise, if a discharge permit application is not received in this office by September 26, 2005, appropriate action will be taken, which may include \$10,000.00 per day fines and / or court action seeking injunctive or other relief.

NEW MEXICO OIL CONSERVATION DIVISION



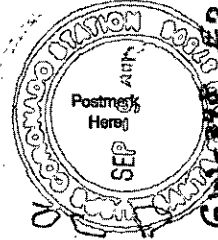
Mark E. Fesmire, P.E.  
Director

pc: OCD, Aztec

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 4.42



Sent To

**ANTHONY T. ARCHULETA**

Street, Apt. No.,  
or PO Box No.

**P.O. Box 3526**

City, State, ZIP+4

**FARMINGTON, NM 87499**

PS Form 3800, January 2001

See Reverse for Instructions

7003 1940 0004 7920 7720

## Chaco Chemical Company

New Location: 20 County Road 5759, Farmington N.M.

President: Mr. Anthony Wiggins, P.O. Box 3526, Farmington N.M. 87499

Office: 505-326-3050

Fax: 505-326-3927

Mobile: 505-320-2694

E-mail: [chacochemical@netzero.com](mailto:chacochemical@netzero.com)

OCD (Brandon Powell & Leonard Lowe) found and inspected the facility on November 20, 2008. Mr. Anthony Wiggins accompanied OCD on inspection visit.

The inspection concluded the following concerns (photos are attached):

1. Housekeeping issues: Photo 1, 2, 3. Barrels empty or partially full are improperly placed. Photo 2 shows a discharge on to the ground of assumed hydrocarbon substance. Photo 3 shows a barrel assumed empty improperly placed near adjacent resident.
2. Questionable integrity of secondary containment and its drainage: Photos 4, 5, 6, 7. The OCD was informed that structure is fairly new. The cement floor appears to be porous, Photo 6, and is not curbed, Photo 5. Mr. Wiggins informed the OCD that the floor drainage is not yet complete. When the plumbing is completed the drain will be flowed to a nearby ditch drainage.
3. Empty/partially empty barrel storage is questionable: the new location of Chaco Chemical is on two properties separated by a few hundred feet. The property located on the west side is currently being used as a storage area. Empty barrels are stored in this area, see photos 8 – 11. Barrels are located directly on the ground. A few barrels and released contents on to the ground, photo 10.

At the conclusion of inspection the OCD informed Mr. Wiggins of the reason for inspection, *referencing a discharge plan permit*. The OCD informed Mr. Wiggins that we will submit a formal request for the application. Mr. Wiggins was willing to submit application.

The OCD will send information to Mr. Wiggins for a request of a discharge plan permit for this facility.

NM-OCD 2009-01  
EXHIBIT I



OCD Inspection: Chaco Chemical Company, GW - 348

Inspector(s): Brandon Powell and Leonard Lowe

Company Rep.: Anthony Wiggins

Date: 11/20/08

Time: 13:50 - 14:20

Page: 1

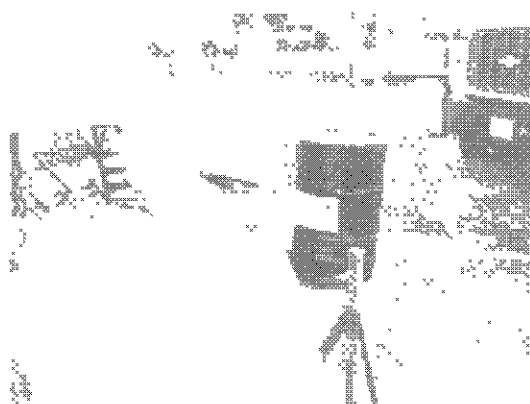


Photo 1: Full barrel located on east side of yard.

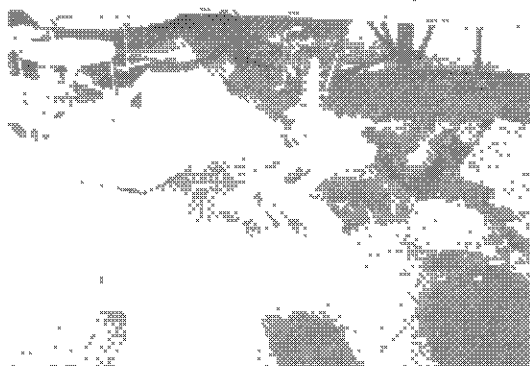


Photo 2: Discharge on to the ground near the northeast side of yard.

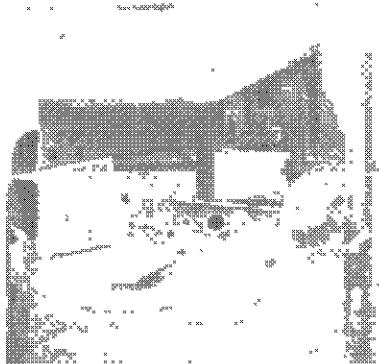


Photo 3: Barrel located on east side of yard adjacent to neighboring property.

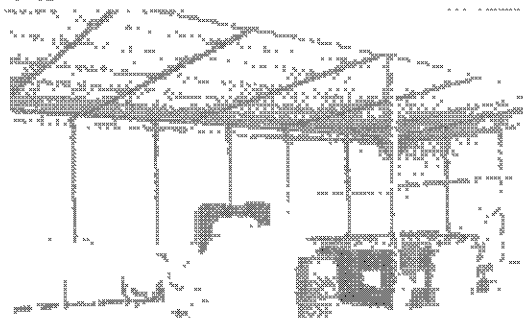


Photo 4: Holding facility for barrels.

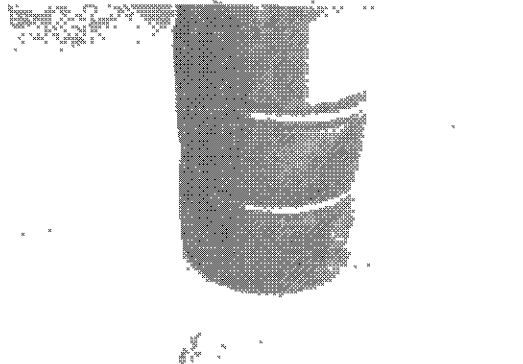


Photo 5: No curb on cement containment area.

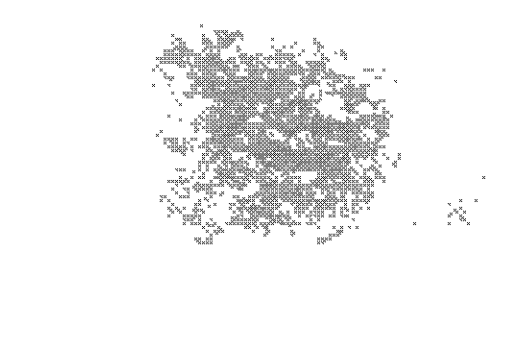


Photo 6: Drain in padded containment area. Drains to the south and outside of covered area.

OCD Inspection: Chaco Chemical Company, GW - 348

Inspectors: Brandon Powell and Leonard Lowe

Company Rep: Anthony Wiggins

Date: 11/20/08

Time: 13:50 - 14:20

Page 2



Photo 7: Unidentified barrels in holding area.

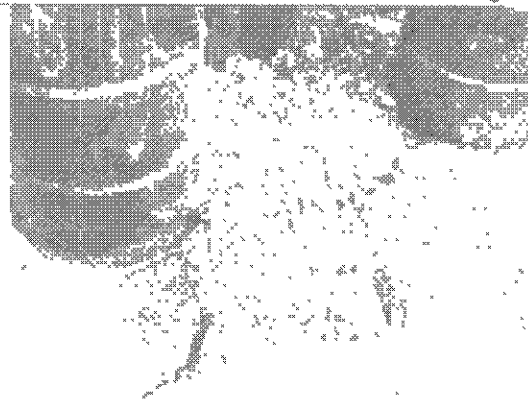


Photo 10: Discharge on to the ground in empty barrel area.



Photo 8: Empty barrel area.



Photo 11: Assorted empty barrel area.

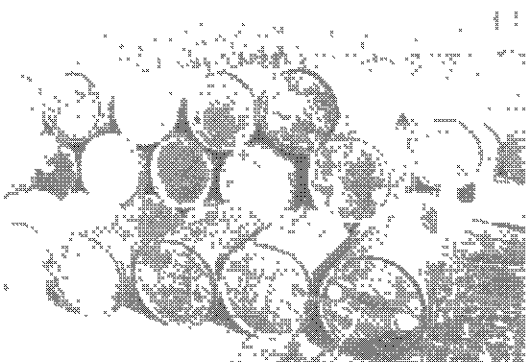


Photo 9: Assorted stacked empty barrels.

## **Lowe, Leonard, EMNRD**

---

**From:** Lowe, Leonard, EMNRD  
**Sent:** Tuesday, November 25, 2008 4:51 PM  
**To:** 'chacochemical@netzero.com'  
**Cc:** Powell, Brandon, EMNRD; Price, Wayne, EMNRD; Sanchez, Daniel J., EMNRD  
**Subject:** GW-348, Chaco Chemical Company Discharge Permit request  
**Attachments:** DP Application.pdf; DP Guide Oilfield.Service.pdf; New & Mod PN Flow Chart.pdf; New & Mod WQCC PN Rules.pdf

Mr. Anthon Wiggins  
President, Chaco Chemical Company, Farmington N.M.

Good afternoon,

Thank you for allowing the OCD to inspection your facility on Thursday, November 20<sup>th</sup>, 2008.

In doing so we ask that Chaco Chemical Company apply for a discharge Plan permit for their facility in Farmington.

I have attached the information needed for Chaco Chemical to apply for a permit. The OCD has identified Chaco's permit as GW-348. Please reference that number on all documentation in reference to your permit submitted to the OCD.

If you have any questions please feel free to contact me.

Thank you again.

llowe

**Leonard Lowe**  
Environmental Engineer  
Oil Conservation Division/EMNRD  
1220 S. St. Francis Drive  
Santa Fe, N.M. 87505  
Office: 505-476-3492  
Fax: 505-476-3462  
E-mail: [leonard.lowe@state.nm.us](mailto:leonard.lowe@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/oed/>

NM-OCD 2009-01  
EXHIBIT J

# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**

Governor  
**Joanna Prukop**  
Cabinet Secretary  
**Reese Fullerton**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



December 9, 2008

Certified Mail: 700205100003512528

Mr. Anthony Wiggins  
P.O. Box 3526  
Farmington N.M. 87499

Re: Discharge Plan Submittal Request (Designated **GW-348**)  
Chaco Chemical Company  
20 County Road # 5759, Farmington N.M.  
Farmington New Mexico, San Juan County

Dear Mr. Wiggins:

The New Mexico Oil Conservation Division Environmental Bureau performed an inspection of the above stated facility on November 20, 2008. The inspection concluded that per WQCC rules and regulations this company is classified as an Oil and Gas Service Company. Due to this facilities proximity to the San Juan River, location to residence and amount of chemicals on site that Chaco Chemical Company must submit an application for a discharge plan permit. All items required for initiating this process are attached to this letter and they are:

1. **Discharge Plan Application for Service Companies, Gas Plants, Refineries, Compressors, Geothermal Facilities and crude oil pump stations:** this is the cover sheet of your application. Fill in all blanks and attach information 1 – 13. Make sure you signed the bottom of this sheet.
2. **Guidelines for the preparation of discharge plans at oil field service facilities (revised 12-95):** this is the guidelines for defining the 1 – 13 points identified in the application cover.
3. **Notice Requirements for New Discharge Permits and Modifications:** this is a section of the WQCC requirements for public notices. All red text pertains to your facility and requirements. The entire WQCC regulation can be found on our website at this address ([http://www.emnrd.state.nm.us/ocd/documents/NMAC\\_20\\_6\\_2-1.pdf](http://www.emnrd.state.nm.us/ocd/documents/NMAC_20_6_2-1.pdf)).
4. **Example of Applicant Public Notice:** this is an example of an applicant public notice. The applicant fills in all areas in yellow as it pertains to the applicant's facility. *The OCD must approve this notice prior to publication.* The applicant may submit this along with the discharge plan application.
5. **WQCC Public Notice and Permitting Flowchart:** this is a visual flow chart on this entire process. Please refer to it for milestones in this application process.

The OCD identified a discharge plan number for this facility as GW-348; please annotate this to all documentation submitted to the OCD pertaining to this facilities discharge plan application.

**NM-OCD 2009-01**  
**EXHIBIT K**

Oil Conservation Division \* 1220 South St. Francis Drive  
\* Santa Fe, New Mexico 87505

\* Phone: (505) 476-3440 \* Fax (505) 476-3462 \* <http://www.emnrd.state.nm.us>



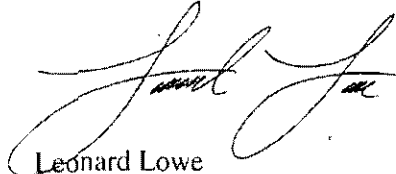
December 9, 2008

Page 2

The OCD Environmental Bureau is obligated by the New Mexico Water Quality Control Commission to protect the ground waters of the state of New Mexico. The OCD performs this task via a Discharge Plan Permit. Please submit the discharge plan application to the OCD within **45 days** of receipt of this letter. Along with your application a \$100.00 filing fee shall be submitted and payable to the New Mexico Water Quality Management Fund.

If you have any questions pertaining to this process please call me at (505) 476-3492 or e-mail me at [leonard.lowe@state.nm.us](mailto:leonard.lowe@state.nm.us).

Sincerely,



Leonard Lowe  
Environmental Engineer  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
Office 505-476-3492

xc: Brandon Powell, Environmental Specialist, OCD Aztec  
Daniel Sanchez, Enforcement and Compliance Manager, OCD Santa Fe

Chaco Chemical Company received Discharge Plan request letter on December 12, 2008.

In 45 days

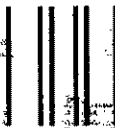
The Discharge Plan application is due in the OCD office on

January 26, 2009

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"><li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li><li>Print your name and address on the reverse so that we can return the card to you.</li><li>Attach this card to the back of the mailpiece, or on the front if space permits.</li></ul>	A. Signature <u>CHRISTINE WIGGINS</u> <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee
	B. Received by (Printed Name) <u>Christine Wiggins</u> C. Date of Delivery <u>12/12/08</u>
1. Article Addressed to:  Mr. Anthony Wiggins P.O. Box 3526 Farmington, NM 87499	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No
	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.
	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes
2. Article Number (Transfer from service label) <u>7002 0510 0003 5125 2829</u>	

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1035

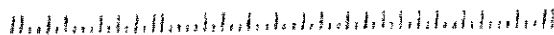
UNITED STATES POSTAL SERVICE



First-Class Mail  
Postage & Fees Paid  
USPS  
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

RECEIVED  
2008 DEC 16 PM 12 31  
OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DRIVE  
SANTA FE, NEW MEXICO 87505



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Revised June 10, 2003

Submit Original  
Plus 1 Copy  
to Santa Fe  
1 Copy to Appropriate  
District Office

**DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES, GAS PLANTS,  
REFINERIES, COMPRESSOR, GEOTHERMAL FACILITIES  
AND CRUDE OIL PUMP STATIONS**

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

☐ New ☐ Renewal ☐ Modification

1. Type: Chaco Chemical Co. LLC Sales + Serv.  
2. Operator: Anthony Wiggins  
Address: CR 5759 # 20  
Contact Person: Anthony Wiggins Phone: 505-320-2654  
3. Location: 14 / 14 Section 20 Township 29 Range 12  
Submit large scale topographic map showing exact location.

map

- 4 Attach the name, telephone number and address of the landowner of the facility site.  
5 Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.  
6. Attach a description of all materials stored or used at the facility.  
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.  
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.  
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.  
10. Attach a routine inspection and maintenance plan to ensure permit compliance.  
11. Attach a contingency plan for reporting and clean-up of spills or releases.  
12 Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.  
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

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

Name: Anthony Wiggins

Title: Superintendent

Signature: [Signature]

Date: 1-16-09

E-mail Address: \_\_\_\_\_

NM-OCD 2009-01  
EXHIBIT M

Group Account Parcel # Local# MH F Seq Tax Area Account Type Land EA Map Sub 1 Parent Parcel # Tax Yr  
 2-071-170-478-008 SOUTH Commercial BS 190 2912 2009

Summary Land Legal Administrative Summary Adjustment Details Photos and Sketches Documents View History

Subdivision: Block/Lot/Tract

Section	Township	Range	Qtr	Qtr/Qtr	Gov Lot	Gov Tract	General Description
▶ 20	29	12	SW	SW			
*							

### Legal

BEG 1133.20 FT S2 52 W AND 180.22 FT E FROM NW COR TRACT 1 OF GOLDIE CHAPMAN 202912 TRACTS.  
 TH N2 52 E 142.30 FT E 149.78 FT S2 52 W 79.30 FT E 5.82 FT S2 52 W 63 FT W 155.6 FT TO BEG. B.1389  
 P.528



Group Account	Parcel #	Local #	MH #/Seq	Tax Area	Account Type	Land EA	Map	Sub	Parent Parcel #	Tax Yr
	2-071-170-478-008			50UT	Commercial	BS-190	2912			2009

Summary

Land

Legal

Administrative Summary

Adjustment Details

Photos and Sketches

Documents

View History

Ownership
1 of 1
Property Info / Name

WIGGINS FAMILY TRUST  
ATTN PAUL WIGGINS  
19 RD 5759  
FARMINGTON NM 87401

Str #

Dir

Name

Type

20
ROAD 5759

Loc #

City

Zip

FARMINGTON
87401-0000

1 of 1

Sch Dist

Approach

Econ Area

# Bldgs

Acct Mgr

50UT

Market

Commercial

1 Imp Only

ComF BP

Bldg	Occupancy	%	Abstract
1	325 - Service Ga	100%	2235

Bldg	Yr Blt	Rem	BlAs	Cls	Exterior	SF	Stry	Bdrm	Bath	MH Make	MHL	MHW	Bldg	Type	Desc	Units
1	1982		Service Garage	D		1620	1	0	0		0	0	1	Add On	Int Frm Part On	-300

Group Account Parcel # Local# MH # Seg Tax Area Account Type Land EA Map Sub Parent Parcel # Tax Yr  
 2-071-170-478-008 500TH Commercial BS 190 2912 2009

Summary Land Legal Administrative Summary Adjustment Details Photos and Sketches Documents View History

Net Acres	0.4900	Gross Acres	0.4971	Appraiser	KMR	Attribute	Description	Adj
Net SF	21,344	Gross SF	21,653	Date Appr	3/18/2008	Size	Undersize Lot	0.1
Sites/Tons	1.00	Easement SF		Cert Code				
Net FF	0	Gross FF		Land NC	\$0.00			
Wd/Dp	X	Excess SF		Land Flags				
Vacant?	<input type="checkbox"/>	Flood Fringe		LANDUPDATE				
Platted?	<input type="checkbox"/>	Flood Way		VALUE1				
Zoning/Far	1.000	Park Spaces		VALUE3				
0	1.0000	Traffic C		*				

Type	Abstract	Ag Class	Value By	Measure	Acres	SF	FF	Units	Adj \$ Per	Actual Value
Commercial	2135		Market	Site	0.49	21344.4	0	1	17,100	\$17,100

K

Order #	Acct #	Recpt #	Parcel #	Date	Price	Adj Sale \$	\$/Per	Land Val
C								
O								
M								

## QUITCLAIM DEED

GOLDIE A. CHAPMAN and KORA MAE CHAPMAN, his wife

for consideration paid, quitclaim

to PAUL RAYMOND WIGGINS and MARY CHRISTINE WIGGINS, his wife

whose address is 2016 Fairview Avenue, Farmington, New Mexico 87401

the following described real estate in

San Juan

County, New Mexico:

BEGINNING at a point which is 1155.2 feet South 2° 52' West and 180.22 feet North 89° 58' West from the Northwest corner of Tract 1 of the Plat of Tracts 1, 2, & 5 in the SW $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 20, and the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 19, in Township 29 North, Range 12 West, N.M.P.M., as subdivided from the lands of Goldie Chapman as filed for record in the office of the San Juan County Clerk on March 16, 1966.

THENCE North 2° 52' East 79.5 feet;

THENCE North 89° 58' East 149.78 feet;

THENCE South 2° 52' West 142.5 feet;

THENCE South 89° 58' West 149.78 feet;

THENCE North 2° 52' East 65.0 feet, more or less, to the point of beginning.

EXCEPT the South one foot thereof.

WITNESS OUR hands and seals this 31st day of May, 1979

(Seal) *Goldie A. Chapman* (Seal)(Seal) *Kora Mae Chapman* (Seal)

## ACKNOWLEDGMENT FOR NATURAL PERSONS

STATE OF NEW MEXICO

SAN JUAN

ss.

The foregoing instrument was acknowledged before me this 31st day of May, 1979, by GOLDIE A. CHAPMAN and KORA MAE CHAPMAN, his wife  
(Name or Names of Person or Persons Acknowledging)

My Commission expires  
Seal

My Commission expires October 30, 1980

Notary Public

## ACKNOWLEDGMENT FOR CORPORATION

STATE OF NEW MEXICO

ss.

COUNTY OF

The foregoing instrument was acknowledged before me this day of 1979,

by (Name of Officer)

(Name of Corporation Acknowledging)

corporation, on behalf of said

Notary Public



FOR RECORDER'S USE ONLY

FILED OR RECORDED

BOOK 856 PAGE 253

SAN JUAN COUNTY, NEW MEXICO

July 24, 1979

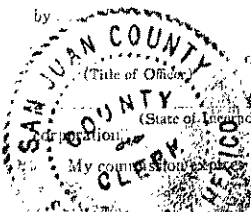
9:46 O'Clock A M

Carol Sandy

COUNTY CLERK

Rate \$5893 Fee \$3.00

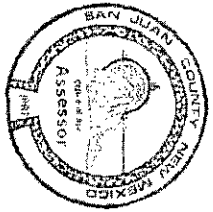
DEPUTY



10051467  
2.071-110-075-003  
SHEETS PROXIMO  
B 1457 P 233  
0.0046

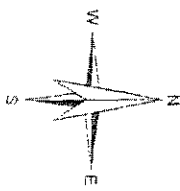
10050207  
2.071-110-075-001  
CERRAS LOCENE  
COMUNE DORNE  
1984

10050207  
2.071-110-075-001  
CERRAS LOCENE  
COMUNE DORNE  
1984



### Legend

- Parcels
- Highways
- City Roads
- County Maintained
- Lesser County Maintained
- Navajo Route
- Oilfield Roads
- Private Roads
- Rivers
- Lakes
- Township/Range Sections
- Quarter Sections
- Aztec City Limits
- Elmont and City Limits
- Farmington City Limits
- Reservation



As a service provided to the public, the Assessor's Office has compiled the following depiction of available data. The San Juan County Assessor's Office assumes no liability for the accuracy of the information provided and it is not intended to be used as a survey. This map is to be used for assessment purposes only.

1-ACRE LOT

Gate

Gate

Sloped Cement  
Slap For Chemical  
8" Slope on sides  
5" Slope in Back

Office

Shop

108'

68'

QUITCLAIM DEED

THIS QUITCLAIM DEED, Executed this 8TH day of JUNE, 2004, by PAUL R. WIGGINS and MARY CHRISTINE WIGGINS, first party, whose address is #19 CR 5759 FARMINGTON, NEW MEXICO. 87401 and THE WIGGINS FAMILY TRUST second party, whose address is #19 CR 5759, FARMINGTON, NEW MEXICO. 87401.

BEGINNING AT A POINT WHICH IS 1133.20 FEET SOUTH 2 DEGREES 52' WEST AND 180.22 FEET NORTH 89 DEGREES 58' EAST FROM THE NORTHWEST CORNER OF TRACT1 OF THE GOLDIE CHAPMAN TRACT AS FILED FOR RECORD IN THE OFFICE OF THE COUNTY CLERK ON THE 16<sup>th</sup> DAY OF MARCH, 1966

THENCE N 2 DEGREES 52'E 142.30 FEET;

THENCE N 89 DEGREES 58' E 149.78 FEET;

THENCE S 2 DEGREES 52' W 79.30 FEET;

THENCE N 89 DEGREES 58' E 5.82 FEET;

THENCE S 2 DEGREES 52' 63.0 FEET;

THENCE S 89 DEGREES 58' W 155.6 FEET TO THE POINT OF BEGINNING

SUBJECT TO ANY EASEMENTS OR RESERVATIONS OF RECORD OR IN EXISTANCE.

WITNESS OUR HANDS AND SEAL this 9<sup>th</sup> day of JUNE, 2004

Paul R. Wiggins

PAUL R. WIGGINS

Mary Christine Wiggins

MARY CHRISTINE WIGGINS

ACKNOWLEDGMENT FOR NATURAL PERSONS

STATE OF NEW MEXICO )

)ss

COUNTY OF SAN JUAN )

The foregoing instrument was acknowledged before me this 9<sup>th</sup> day of JUNE, 2004 by PAUL R. WIGGINS AND MARY CHRISTINE WIGGINS.

Bernadine E. Fitzgerald

Notary Public

my commission expires: 1-23-07



OFFICIAL SEAL  
BERNADINE E. FITZGERALD  
NOTARY PUBLIC - STATE OF NEW MEXICO

My commission expires: 1-23-07



200410219 06/10/2004 02:25P  
1of1 B1389 P528 R 9.00 D 0.00  
San Juan County, NM Clerk FRANK HANHARDT

Fred Moss  
Chapman

76

[illegible]

*Bonnie Christ*  
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be

## STATE ENGINEER OFFICE

## WELL RECORD

## Section 1. GENERAL INFORMATION

(A) Owner of well Larry Yows Owner's Well No. 1  
 Street or Post Office Address 17 Rd. 5/35  
 City and State Farmington, N.M. 87401

Well was drilled under Permit No. SJ-2299 and is located in the:

a. SW  $\frac{1}{4}$  AB  $\frac{1}{4}$  AN  $\frac{1}{4}$  of Section 29 Township 29N Range 12W N.M.P.M.  
 b. Tract No. \_\_\_\_\_ of Map No. \_\_\_\_\_ of the \_\_\_\_\_  
14-15-16  
 c. Lot No. \_\_\_\_\_ of Block No. 4 of the Wild Horse Valley  
 Subdivision, recorded in San Juan County.  
 d. X= \_\_\_\_\_ feet, Y= \_\_\_\_\_ feet, N.M. Coordinate System \_\_\_\_\_ Zone in  
 the \_\_\_\_\_ Grant.

(B) Drilling Contractor Univiers Drilling Co. License No. WD-809

Address P.O. Box 605 Bloomfield, N.M. 87415

Drilling Began 3-20-91 Completed 9-29-91 Type tools \_\_\_\_\_ Size of hole 8 5/8 in.

Elevation of land surface or \_\_\_\_\_ at well is \_\_\_\_\_ ft. Total depth of well 27 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 7 ft.

## Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
<u>10</u>	<u>22</u>	<u>4</u>	<u>Small river rocks and sand</u>	<u>3-4 gpm</u>

## Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
<u>7"</u>	<u>42 lbs.</u>	<u>welded</u>	<u>0</u>	<u>27</u>	<u>27</u>	<u>Standard</u>	<u>18</u>	<u>22</u>

## Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

## Section 5. PLUGGING RECORD

Plugging Contractor \_\_\_\_\_  
 Address \_\_\_\_\_  
 Plugging Method \_\_\_\_\_  
 Date Well Plugged \_\_\_\_\_  
 Plugging approved by: \_\_\_\_\_

State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
<u>1</u>			
<u>2</u>			
<u>3</u>			
<u>4</u>			

## FOR USE OF STATE ENGINEER ONLY

Date Received 3-20-92

Quad \_\_\_\_\_ FWL \_\_\_\_\_ FSL \_\_\_\_\_

File No. SJ-2299 Use Dom Location No. 29N.12W. 29.113

This safety and health program is written for the employees of CHACO CHEMICAL COMPANY INC.

TABLE OF CONTENTS

No. 1	Work Plan
No. 2	Safety and Health Manual
No. 3	Management Safety Committee
No. 4	Department Safety Meetings
No. 5	Emergency/Disaster Control Plan
No. 6	Fire Brigade
No. 7	Supervisors' Safety Training
No. 8	New/Transferred Employee Orientation
No. 9	First Aid Program
No. 10	Management Perspective
No. 11	Incident Investigation Analysis
No. 12	Housekeeping Inspections
No. 13	Hazard Inspections
No. 14	Emergency Equipment Inspections
No. 15	Loss Prevention Reviews
No. 16	Off-The-Job Safety
No. 17	Awards Incentive Program
No. 18	Safe Work Practices - TJA's and JSA's
No. 19	Change and Shower Facilities
No. 20	Personal Protective Equipment Use
No. 21	Chemical Purchase Program
No. 22	Control System Testing
No. 23	Information Transfer
No. 24	Professional Development
No. 25	Walk-Through Area Review



## SAFETY AND HEALTH MANUAL

### Area Office, Farmington, New Mexico:

1. No electrical extension cords will be used in the office as permanent wiring.
2. No electric circuits will be overloaded.
3. All electrical equipment will be turned off and unplugged from the wall receptical before cleaning or repairing.
4. No chemical samples or glass containers will be stored except in cabinets with doors on them or rails around them.
5. All employees will know where the building fire extinguishers are located.
6. All employees will report accidents on and off the job.
7. All employees will report all illnesses.
8. All employees will drive safely.
9. All employees will wear seat belts in all company vehicles, and it is requested they do so in all personal vehicles.
10. A first aid kit will be kept up-to-date in the office.
11. All employees will know the emergency number for fire, police and medical services.
12. An escape route from this office will be drawn and posted on the door.
13. All employees will practice safety and good health on and off the job.

14. The supervisor in this office will conduct quarterly safety meetings.

15. The supervisor in the office will make routine inspections of the office to insure safe practices are in place.

16. CHEMICAL EMERGENCY RESPONSE numbers will be posted in all offices:

1-800-232-1616, Ext. 347 (In the USA)

## SAFETY AND HEALTH MANUAL

Duties and Responsibilities of Sales Reps, Sales and Service Reps, Service Reps, Tech Service Chemist:

1. Attend a safety meeting at least once each quarter and provide a written record. (Sales and Sales and Service Reps that are supervisors: It is your responsibility to put on a quarterly safety meeting for your people.)
2. Drive in a safe and careful manner.
3. Wear seat belts in all company vehicles. It is also requested that you wear seat belts in all other vehicles.
4. Wear safety helmets and eye protection when needed.
5. Abide by all safety rules on all customers' properties.
6. Safety equipment in cars (fire extinguisher, first aid kit, hard hat, rubber gloves, snake bite kit, eye protection--goggles or glasses, and a portable eye wash kit) must be maintained in good shape.
7. Dispose of all samples and solvents in an EPA-accepted manner.
8. Maintain a clean car trunk to minimize fire hazards.
9. Put and use a valve on gasoline gun.
10. Maintain MSD sheets on all products sold and samples carried.
11. Use hard hats, eye protection and rubber gloves when catching samples.
12. Inspect automobiles for safety defects--tires, lights, windshield, etc.
13. Do not open or close valves on customers' leases without permission, and unless you are absolutely sure you know where the line leads to and what the results will be.
14. Be alert to the possibility of  $H_2S$  gas in the area at all times.

15. Practice safety on and off the job.

16. Know the local emergency numbers for fire, police and medical services.

17. Make sure any laboratories and mobile laboratories have a copy of the Sand Springs safety rules and practices.

18. The CHEMICAL EMERGENCY RESPONSE numbers will be posted in cars, trucks, offices and homes:

1-800-232-1616, Ext. 345 (In the USA)

1-918-493-4347 (Canada)

## SAFETY AND HEALTH MANUAL

### Duties and Responsibilities of Corrosion Technicians and Delivery Truck Drivers:

1. Attend a safety meeting at least once each quarter.
2. Drive in a safe and careful manner.
3. Wear seat belts in all company vehicles. It is also requested that seat belts be worn in all other vehicles.
4. Wear safety helmets, eye goggles, face mask and rubber gloves when treating wells.
5. Abide by all safety rules on customers' leases.
6. Safety equipment in trucks (fire extinguisher, first aid kit, hard hat, rubber gloves, snake bite kit, eye protection--goggles or face mask, and eye wash kit) must be maintained in good shape.
7. Dispose of all chemical and/or oil and brine spills in an EPA-accepted manner.
8. Maintain a clean truck to minimize fire hazards.
9. Maintain MSD sheets and bills of lading on all products carried on truck.
10. Maintain proper labeling on trucks.
11. Inspect trucks for safety defects daily--tires, lights, windshields, etc.
12. Be absolutely sure one knows where the valves on customers' leases lead before opening and closing.
13. Be alert to the possibility of  $H_2S$  gas at all times.
14. Use wheel chocks when treating wells.
15. Practice safety on and off the job.
16. Check all high pressure hoses twice a year.
17. Test high pressure relief valves twice a year.

18. Open high pressure valves very slowly.
19. Make sure all bulk storage tanks are diked and the dikes are maintained.
20. Know the local emergency numbers for fire, police and medical services.
21. Carry a clean change of clothes in truck in case of chemical spill on clothing.
22. Use proper equipment to handle drums.
23. Be sure static lines are connected during loading and unloading.
24. Inspect truck weekly, fill out required form and give to supervisor.
25. Inspect treater truck high pressure equipment twice, each year, fill out required form and give to supervisor.
26. All treater truck drivers will be provided a Chem-Link OFC Division treater truck manual.
27. Have CHEMICAL EMERGENCY RESPONSE numbers in all trucks:

1-800-722-5660, Ext. 347 (Okla.)

1-800-232-1616, Ext. 347 (In the USA)

1-918-493-4347 (Canada)

## SAFETY AND HEALTH MANUAL

### Warehouses, Mid-Continent Region:

1. A spill prevention plan will hang in all warehouses.
2. Fire extinguishers will be available.
3. MSD sheets will be in each warehouse, or in the office closest to the warehouse.
4. Local authorities will be notified of each warehouse and an inspection requested.
5. Warehouses will be kept clean from trash and paper to reduce fire hazard.
6. Eye wash kit, first aid kit, eye protection and rubber gloves will be available.
7. Frequent checks will be made of all drums for leaks and swelling.
8. Local emergency numbers for fire, police and medical services will be posted.
9. Proper equipment will be used to handle drums.
10. CHEMICAL EMERGENCY RESPONSE numbers will be posted:

1-800-424-9300

215-353-8300

#### DEPARTMENT SAFETY MEETINGS

Each employee is required to attend a safety meeting each quarter. The safety meetings will be held for and by ChemLink personnel, or the employees may attend a safety meeting held by ARCO Oil and Gas Company.

It is every employee's responsibility to attend this meeting and give a written notice to his supervisor that he or she has attended.



## EMERGENCY/DISASTER CONTROL PLAN

The emergency/disaster control plans are posted in all warehouses.

All personnel that have offices outside their homes will use the CHACO emergency control plan. If none exists, then an escape route will be drawn and posted on the office door. Employees that office in their homes will use the home escape plan that they provide for their families.

All employees will have the numbers of the local emergency authorities visible at their telephones.

All employees will have the CHEMICAL EMERGENCY RESPONSE numbers visible at their telephones.

The bulk tank disaster control plan is enclosed.

Date: January 2, 2009

Subject: Spill Prevention Plan - Chemical Bulk Tanks

From/Location: A.T. ARCHULETA

To/Location: CHACO CHEMICAL EMPLOYEES

In case of a chemical spill or leak in your bulk storage tanks, you should put sand on the chemical to dry it up and then call a commercial company that is licensed to dispose of hazardous waste materials to pick up and dispose of the remains.

This plan should be kept in an office that is closest to the bulk tanks and readily accessible to all.

  
J. M. Wagner  
Registered Professional Engineer

FIRE BRIGADE

Local authorities (fire department and police) have toured warehouse facilities and are aware that MSD sheets are available for the material being stored in these warehouses. Also, appropriate emergency telephone numbers were given to these authorities along with a copy of our emergency/disaster plan. Inspection of warehouses and a review of the emergency/disaster plan will be done annually.

It is the responsibility of all individuals in charge of warehouses to keep the warehouses in compliance and get the annual inspections.

A copy of the warehouse spill prevention plan is enclosed.

All personnel will receive proper training in the use of fire extinguishers.

The telephone numbers of the local authorities should be posted in the warehouses (fire, police).

Date

Subject

From/Location

To/Location

In case of a chemical leak or spill in your warehouse, you should put Absorb-all on the chemical to dry it up and then call a commercial company that is licensed to dispose of hazardous waste material to pick up and dispose of the remains. Should there be no commercial hazardous waste disposal available, the remains are to be shipped to Sand Springs for disposal.

MSD sheets are to be readily available in the warehouse on all products in the warehouse at all times.

This plan will hang in the warehouse in a place accessible to everyone.

  
J.M. Wagner  
Registered Professional Engineer

## HOUSEKEEPING

Good housekeeping policies to be used by all PERSONNEL:

1. Offices free of clutter, bottles and samples.
2. Automobiles free from any fire hazards.
3. Mobile labs free of fire hazards and equipment kept in place.
4. Treater trucks free of debris in the cabs and all safety equipment in place.
5. All warehouses kept free of litter and fire hazards.

## HAZARD INSPECTIONS

Each supervisor in every area will be responsible for making a quarterly hazard inspection in his area of responsibility. Each supervisor will check all safety equipment (fire extinguishers, goggles, hard hats, gloves, first aid kits, and eye wash kits) monthly and make sure equipment is in good working order. A written report will be filed in the Farmington, N.M. OFFICE.

## EMERGENCY EQUIPMENT INSPECTIONS

All fire extinguishers will be checked once each year by a qualified company. The other emergency equipment inspections are taken care of in other parts of the program.

OFF-THE-JOB SAFETY

Please practice safety at all times. Encourage your family and friends to practice safety.



## SAFE WORK PRACTICES, JSA'S AND TJA'S

Hazardous Jobs - Service Representatives, Sales and Service Representatives, Sales Representatives, Technical Service Representatives, Account Representatives and Tech Service Chemists:

1. All employees will practice defensive driving at all times. Wearing of seat belts is mandatory.

2. All employees will abide by the safety regulations for mobile labs.

3. All employees will carry coveralls, eye goggles and rubber gloves to use when handling chemicals.

4. All employees will be schooled in the proper manner to handle all chemical, brine or oil spills.

5. All employees will use safe practices when they are performing routine lab tests, bottle tests, water analyses, etc.

6. All employees in the Rocky Mountain District and Canada will carry clothing and survival gear in case they are caught in a winter storm.

7. All employees will be extremely careful to watch for the presence of  $H_2S$  gas, and should know the alarm systems the production companies have in place.

## PERSONAL PROTECTIVE EQUIPMENT USE

All personnel are required to carry and use:

- a. hard hats
- b. eye goggles or face shields
- c. rubber gloves
- d. eye wash kits
- e. first aid kits
- f. snake bite kits

The corrosion technicians are provided uniforms and are required to wear steel-toed shoes.

The service representatives, sales and service representatives, sales representatives, tech service representatives, tech sales representatives, tech account representatives and tech service chemists are provided coveralls, and should use surgical disposable gloves when running routine lab tests.

All safety equipment and clothing is approved for purchase and use by the OFC safety coordinator.

## WALK-THROUGH AREA REVIEW

The walk-through area is covered in other parts of the safety program except:

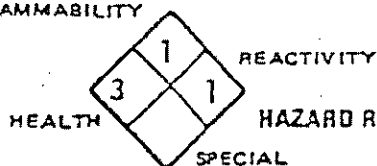
1. Bulk tanks--all bulk tanks are to be diked with dikes big enough to handle twice the volume in the tanks. The proper NFPA hazard signs will be put on the tanks and the solvent warning signs will be put on all tanks.
2. Keifer storage shed--a fire extinguisher will be mounted at the door, and a source of water will be maintained to wash eyes and skin in case of a spill.



EMERGENCY PHONE (203) 356-2345

Olin Corporation, 120 Long Ridge Road  
Hamford, Conn. 06904

FLAMMABILITY



HAZARD RATING

MATERIAL SAFETY DATA

C 236701

## SECTION I - IDENTIFICATION

CHEMICAL NAME & SYNONYMS 35% Catalyzed Hydrazine Solution		
CHEMICAL FAMILY	FORMULA N <sub>2</sub> H <sub>4</sub> .H <sub>2</sub> O	TRADE NAME SCAV-OX <sup>(R)</sup> II
DESCRIPTION Clear colorless to pink liquid		CAS NO. 302-01-2

## SECTION II - NORMAL HANDLING PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE  Do not get in eyes, on skin, or on clothing. Do not take internally. Avoid breathing mist or vapors. Destroy any contaminated leather articles. Store in a well ventilated area away from oxidizing materials and acids. Avoid exposure to direct sunlight or high temperatures.	
CORROSIVE ACTION ON MATERIALS (Metals, Plastic, Rubber, Etc.)	
PROTECTIVE EQUIPMENT Eyes Goggles Gloves Polyvinyl chloride or butyl rubber Other Coveralls, boots, and PVC or butyl rubber apron.	VENTILATION REQUIREMENTS  As required to keep airborne concentrations of hydrazine below TLV.

## SECTION III - HAZARDOUS INGREDIENTS

BASIC MATERIAL	APPROX. %	OSHA PEL	LD 50	LC 50	SIGNIFICANT EFFECTS
Hydrazine	35	1 ppm	91 mg/kg dermal	570 ppm/4 hrs/	carcinogenic in laboratory animals
			rabbits		rats

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT None METHOD	OSHA CLASSIFICATION Class IIIB Combustible liquid	FLAMMABLE EXPLOSIVE LIMITS	LOWER NA	UPPER NA
EXTINGUISHING MEDIA Water. Hydrazine solution concentrated by fire exposure can liberate hydrazine vapor (explosive limits hydrazine 4.7-100%).				
SPECIAL FIRE HAZARD & FIRE FIGHTING PROCEDURES Use NIOSH/MSHA approved self-contained breathing apparatus where this material is involved in a fire.				

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Hydrazine (skin) 0.1 ppm TWA 0.1 ppm STEL (ACGIH).	
SYMPTOMS OF OVER EXPOSURE Dizziness, nausea, skin, eye and mucous membrane irritation, central nervous system stimulation, may cause temporary blindness.	
EMERGENCY FIRST-AID PROCEDURES	
SKIN	Wash thoroughly with water for 15 minutes. Call a physician.
EYES	Wash thoroughly with water for 15 minutes. Call a physician.
INGESTION	Drink water, induce vomiting by sticking finger down throat. Call a physician.
INHALATION	Remove victim to fresh air. Call a physician.

# MATERIAL SAFETY DATA SHEET

(1)

METHANOL

MSDS  
HCROC

Rev. 1



ARCO CHEMICAL COMPANY  
DIVISION OF ATLANTIC RICHFIELD COMPANY  
1500 MARKET STREET  
P.O. BOX 7258  
PHILADELPHIA, PENNSYLVANIA 19101

**IMPORTANT:** Read this MSDS handling and disposing of this product and pass this information on to employees, customers, and users of this product.

This product is covered by the C Hazard Communication Rule and document has been prepared in accordance with the MSDS requirements of

I. General			
Trade Name METHANOL		Telephone Numbers EMERGENCY 800/424-9300 CHEMT 215/353-8300 ARCO CH CUSTOMER SERVICE 800/321-7000 INFO ON	
Other Names METHYL ALCOHOL, WOOD ALCOHOL			
Chemical Family ALIPHATIC ALCOHOL		DOT Hazardous Materials Proper Shipping Name METHYL ALCOHOL	
Generic Name N/P		DOT Hazard Class FLAMMABLE LIQUID	
CAS No. SEE SECTION IX	Company ID No. E000142300	UN/NA ID No. UN 1230	
II. DANGER		Summary of Hazards	
PHYSICAL HAZARDS:		EXTREMELY FLAMMABLE-MAY BURN WITH INVISIBLE FLAME	
ACUTE HEALTH EFFECTS: (SHORT-TERM)		MODERATE INHALATION HAZARD MODERATE EYE IRRITANT MODERATE SKIN ABSORPTION HAZARD MODERATE INGESTION HAZARD. SEE SUPPLEMENT SLIGHT SKIN IRRITANT	
CHRONIC HEALTH EFFECTS: (LONG-TERM)		SWALLOWING AS LITTLE AS ONE TO FOUR OUNCES OF METHANOL HAS BEEN REPORTED TO CAUSE DEATH OR SERIOUS IRREVERSIBLE INJURY SUCH AS BLINDNESS. SEE SUPPLEMENT	
III. Fire and Explosion			
Flash Point (Method) AP 50° F (CC )		Autoignition Temperature (Method) AP 725° F	Flammable Limits (% Vol. in Air) At Normal Atmospheric Temperature and Pressure Lower AP 6 Upper AP
Fire and Explosion Hazards	RELEASES FLAMMABLE VAPORS BELOW NORMAL AMBIENT TEMPERATURES. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, CAN BURN IN OPEN OR EXPLODE IF CONFINED. MIXTURES WITH WATER AND AS LITTLE AS 21% (BY VOL) METHANOL ARE STILL FLAMMABLE (FLASH PT. <100 F). UNDER SOME CIRCUMSTANCES, MAY CORRODE CERTAIN METALS, INCLUDING ALUMINUM AND ZINC, AND GENERATE HYDROGEN GAS.		
Extinguishing Media	<div style="display: flex; justify-content: space-between;"> <div>             DRY CHEMICAL CO2 FOAM FOR ALCOHOLS           </div> <div>             WATERSPRAY WATER FOG           </div> </div>		
Special Firefighting Procedures	A METHANOL FIRE MAY NOT BE VISIBLE TO THE NAKED EYE. DO NOT ENTER FIRE AREA W/O PROPER PROTECTION. SEE SECTION X - DECOMPOSITION PRODUCTS POSSIBLE FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREASING RISK OF BURNS/INJURIES. APPLY AQUEOUS EXTINGUISHING MEDIA CAREFULLY TO AVOID FROTHING AND LIMIT EXPOSURE OF NEARBY EQUIPMENT. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/PUBLIC WATERS.		

## IV. Health Hazards

SEE SUPPLEMENT  
BEGINNING ON PAGE 7

Summary of  
Route Hazards MODERATE HEALTH HAZARD - SEE BELOW FOR ROUTE-SPECIFIC DETAILS.

ROUTE OF EXPOSURE	SIGNS AND SYMPTOMS	Primary Route(s)
Inhalation	OVEREXPOSURE MAY CAUSE COUGHING, SHORTNESS OF BREATH, DIZZINESS, INTOXICATION AND COLLAPSE.	<input checked="" type="checkbox"/>
Eye Contact	MAY CAUSE MODERATE IRRITATION, INCLUDING BURNING SENSATION, TEARING, REDNESS OR SWELLING.	<input checked="" type="checkbox"/>
Skin Absorption	EXPOSURE TO THIS MATERIAL CAN RESULT IN ABSORPTION THROUGH SKIN CAUSING HEALTH HAZARD.	<input checked="" type="checkbox"/>
Skin Irritation	MAY PRODUCE SKIN IRRITATION.	<input type="checkbox"/>
Ingestion	SEE SUPPLEMENT	<input checked="" type="checkbox"/>
Summary of Chronic Hazards and Special Health Effects	SEE SUPPLEMENT  SEE SUPPLEMENT	

## V. Protective Equipment and Other Control Measures

Respiratory	DO NOT USE AIR-PURIFYING RESPIRATOR. ONLY NIOSH/MSHA APPROVED SUPPLIED AIR OR SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE ARE SATISFACTORY.
Eye	EYE PROTECTION SUCH AS CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID, AIRBORNE PARTICLES, OR VAPOR. CONTACT LENSES SHOULD NOT BE WORN.
Skin	WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.
Engineering Controls	GENERAL ROOM OR LOCAL EXHAUST VENTILATION IS USUALLY REQUIRED TO MEET EXPOSURE STANDARD(S).
Other Hygienic and Work Practices	EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.  USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE CONTAMINATED CLOTHING/ WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING SOAP AND WATER.

## VI. Occupational Exposure Limits

Substance	Source	Date	Type	Value/Units	Time
METHYL ALCOHOL - SKIN	ACGIH	1984	TWA	200 PPM	8 HRS
			STEL	250 PPM	15 MIN
	OSHA	1971	TWA	200 PPM	8 HRS



## METHANOL

MSDS  
HCROC  
Rev. C

### XIV.

### Supplement

#### ACUTE AND CHRONIC HEALTH EFFECTS

SWALLOWING AS LITTLE AS 1 TO 4 OUNCES OF METHANOL HAS BEEN REPORTED TO CAUSE DEATH OR SERIOUS IRREVERSIBLE INJURY SUCH AS BLINDNESS IN HUMANS. STUDIES IN EXPERIMENTAL ANIMALS INDICATE THAT THE METABOLISM OF METHANOL TO FORMIC ACID RESULTS IN METABOLIC ACIDOSIS AND REVERSIBLE OR IRREVERSIBLE DAMAGE TO THE OPTIC NERVE. SEE THE MEDICAL TREATMENT SECTION OF THIS DATA SHEET FOR INFORMATION ON TREATING METHANOL POISONING.

A RECENT ARTICLE HAS REPORTED EFFECTS OF EXPOSURE TO METHANOL VAPORS (AM. IND. HYG. ASSOC. J. 45(1 57-55, 1984). IN THIS REPORT TEACHERS AIDES EXPOSED TO METHANOL VAPORS (365-3080 PPM) IN DIRECT-PROCESS SPIRIT DUPLICATING OPERATIONS REPORTED SIGNIFICANTLY MORE OF THE FOLLOWING COMPLAINT THAN A COMPARISON GROUP: BLURRED VISION, HEADACHE, DIZZINESS, AND NAUSEA.

#### SPECIAL HEALTH EFFECTS

INGESTION OF THIS PRODUCT, EVEN IN SMALL AMOUNTS, CAN CAUSE BLINDNESS AND DEATH. ONSET OF SYMPTOMS MAY BE DELAYED FOR 18-24 HOURS: TREATMENT PRIOR TO ONSET OF OBVIOUS SYMPTOMS MAY BE LIFE-SAVING. METHANOL IS RAPIDLY ABSORBED AND EMESIS SHOULD BE INITIATED EARLY TO BE EFFECTIVE, WITHIN 30 MINUTES OF INGESTION, IF POSSIBLE. ADMINISTER SYRUP OF IPECAC. AFTER THE DOSE IS GIVEN, ENCOURAGE PATIENT TO TAKE 6-8 OUNCES OF CLEAR NON-CARBONATED FLUID. DOSE MAY BE REPEATED ONCE IF EMESIS DOES NOT OCCUR WITHIN 20-30 MINUTES. ADMINISTRATION OF AN AQUEOUS SLURRY OF ACTIVATED CHARCOAL WITH MAGNESIUM CITRATE OR SORBITOL AS A CATHARTIC HAS BEEN REPORTED HELPFUL.

ETHANOL INHIBITS THE FORMATION OF TOXIC METABOLITES. IF ETHANOL THERAPY IS INDICATED, ADMINISTER A LOADING DOSE OF 7.6-10 ML OF 10% ETOH IN D5W OVER 30-60 MINUTES. MAINTENANCE DOSE IS 1.4 ML/KG/HR OF 10% ETOH, TO ACHIEVE A 100-130 MG/DL BLOOD ETOH LEVEL DURING ETHANOL THERAPY. (IF CHARCOAL IS ADMINISTERED, ETHANOL SHOULD BE ADMINISTERED INTRAVENOUSLY AND NOT ORALLY.)

MAINTAIN CONTACT WITH POISON CONTROL CENTER DURING ALL ASPECTS OF DIAGNOSIS AND TREATMENT.

(2)

Page: 1

## MATERIAL SAFETY DATA SHEET

Printed : 07/10/91

Revised : 04/04/91

## SECTION I - PRODUCT IDENTIFICATION

Manufacturer: JETCO CHEMICALS, INC.  
 P. O. BOX 1898  
 HWY 31 EAST  
 CORSICANA TX 75151

Information Phone: 903-872-3011  
 Emergency Phone: 903-874-9500  
 CHEMTREC Phone: 800-424-9300

Product Class: Demulsifier  
 Trade Name : JET BREAK 176  
 Product Code : BRK176.2  
 C.A.S. Number: Mixture

Hazard Ratings: Health - 1  
 none -> extreme Fire - 2  
 0 ---> 4 Reactivity - 1

Shipping Name: FLAMMABLE LIQUID, N.O.S. (CONTAINS AROMATIC NAPHTHA AND  
 Shipping Name: ISOPROPYL ALCOHOL) UN1993  
 Personal Protection - B

## SECTION II - HAZARDOUS INGREDIENTS

Ingredients	CAS #	Weight %	Exposure Limits	VP
			ACGIH/TLV OSHA/PEL	mm HG
ISOPROPYL ALCOHOL (IPA)	67-63-0	1-5	400 ppm	33
		STEL= 500	500	

ALL Ingredients in this product are listed in the T.S.C.A. Inventory.

\* -> These items are listed on the SARA TITLE III Section 313 inventory

## SECTION III - PHYSICAL DATA

Boiling Range: 149 Deg. F Vapor Density: Heavier than Air.  
 Evap. Rate: Slower than n-Butyl Acetate Liquid Density: Lighter than Water.  
 Volatiles volume: N/DA % Wgt per gallon: 7.76 Pounds.  
 Spec. Gravity: 0.93  
 Appearance: Light Amber Liquid  
 V.O.C.: N/DA

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: 1B Flash Point: 62 F LEL: N/DA

## -EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, water spray, foam, or water fog.

## -SPECIAL FIREFIGHTING PROCEDURES:

Appropriate breathing apparatus should be worn when fighting fires. Decomposition products possible. Water may be ineffective in fighting fires due to low flash point. Heat may build pressure/rupture closed container, spreading fire. Use water spray/fog for cooling.

## -UNUSUAL FIRE &amp; EXPLOSION HAZARDS:

Releases flammable vapors at normal ambient temperatures which can burn in open or explode if confined. Flammable vapors are heavier than air. May travel long distances along the ground before igniting/flashing back to vapor source. Water dilution may not suffice to raise flash point.



## =====

## SECTION V - HEALTH HAZARD DATA

-----  
-CHRONIC HEALTH EFFECTS:

No information available.

## -EFFECTS OF OVEREXPOSURE:

INHALATION: May cause symptoms of depression, headache, dizziness, loss of appetite, weakness, lack of coordination, and severe irritation of mucous membranes and lungs. Concentrated exposure may also cause symptoms of lack of oxygen leading to collapse and possible death.

SKIN ABSORPTION: No significant signs or symptoms of skin absorption expected.

SKIN IRRITATION: May cause skin irritation, blistering, and/or dermatitis in some individuals.

INGESTION: May cause nausea, collapse, coma, and possible death.

EYE CONTACT: May cause severe eye irritation, burning, tearing, and redness.

CHRONIC HEALTH EFFECTS: No information available.

## -FIRST AID:

INHALATION: Remove to fresh air. Give oxygen and artificial respiration as needed. Obtain medical attention promptly.

EYE CONTACT: Flush eyes with low-pressure water for at least 15 minutes and obtain medical attention immediately. Prompt action is essential.

SKIN CONTACT: Wash affected area with soap and water. Remove contaminated clothing, including shoes, and clean thoroughly before reuse. Seek medical attention if irritation persists.

INGESTION: If conscious, give at least two glasses of water. Do not induce vomiting. Obtain medical aid immediately.

## =====

## SECTION VI - REACTIVITY DATA

-----  
STABILITY: [ ] Unstable [x] Stable

HAZARDOUS POLYMERIZATION: [ ] May occur [x] Will not occur

## -INCOMPATIBILITY:

Avoid strong oxidizing agents.

## -CONDITIONS TO AVOID:

Heat, sparks, open flame, and/or strong oxidants.

## -HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon dioxide, carbon monoxide, and/or nitrogen oxides.

## =====

## SECTION VII - SPILL OR LEAK PROCEDURES

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

Flammable. Release can cause fire/explosion/  
human health hazard/be toxic to aquatic life. Evacuate/limit  
access. Notify fire and environmental authorities in the event  
of large spills. Equip responders with proper protection. Stop  
release, prevent flow to sewers/public waters. Eliminate all  
ignition sources. Blanket with firefighting foam. Restrict  
water use for clean-up. Impound/recover large land spills.  
Soak up small spills with inert solids such as clay or  
diatomaceous earth. Place in suitable disposal containers.  
Report per regulatory requirements.

(cont.)

## =====

## SECTION VII - SPILL OR LEAK PROCEDURES (cont.)

-----  
-STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: (cont.)

## -WASTE DISPOSAL METHOD:

Contaminated soil/water/product may be RCRA/OSHA hazardous waste due to potentially low flash point. Landfill at permitted sites. Use registered transporters. Incinerate concentrated liquids in systems compatible with liquid wastes where permitted under federal, state and local regulations. Consult waste disposal authorities.

## -SPILL REPORTABLE QUANTITY:

## =====

## SECTION VIII - SPECIAL PROTECTION INFORMATION

-----  
-RESPIRATORY PROTECTION:

At general use temperatures, an organic vapor cartridge respirator should be suitable. If exposure may exceed established standards, use of NIOSH/MSHA approved respiratory equipment operated in compliance with the OSHA Standard for Respiratory Protection (29 CFR 1910.134) is required.

## -VENTILATION:

Local exhaust ventilation may be required to meet exposure standards in addition to good room ventilation.

## -PROTECTIVE GLOVES:

Impervious protective gloves, boots, and head protection should be worn. Equipment should be cleaned thoroughly after each use.

## -EYE PROTECTION:

Eye protection, including both chemical splash goggles and face shield, must be worn when splashing, spraying, or other eye contact is possible.

## -OTHER PROTECTIVE EQUIPMENT:

Emergency eyewash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, smoking, or using toilet facilities. Promptly remove soiled clothing; washing thoroughly before reuse. Shower after work using plenty of soap and water.

## =====

## SECTION IX - SPECIAL PRECAUTIONS

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-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Store in tightly sealed drums or in properly ventilated tanks away from heat, sparks, open flames, and strong oxidants. Use only non-sparking tools. Store drums with bung in up position. Carefully vent internal pressure before beginning transfer. Electrical equipment should conform to national electric code. Handle empty containers with care; vapor residue may be flammable. Vapor space above liquid may be flammable unless blanketed with inert gas.

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SECTION IX - SPECIAL PRECAUTIONS (cont.)

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-OTHER PRECAUTIONS:

Equipment exposed to this material should be thoroughly drained,  
water-washed, and purged prior to maintenance operations.

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SECTION X - DISCLAIMER

-----

-DISCLAIMER:

The submission of this MSDS may be required by law, but this is  
not an assertion that the substance is hazardous when used in  
accordance with proper safety practices and normal handling  
procedures. Data supplied is for use only in connection with  
occupational safety and health.

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

ARCO Chemical Company requests Customer to study this Data Sheet and become aware of Product hazards. To promote safe handling Customer should (1) notify its employees, agents and contractors of the information on this Data Sheet, and (2) furnish a copy of this Data Sheet to each of its customers for the Product and request such customers to notify their employees and customers for the Product of the information on this Data Sheet and a Product hazards and safety information.

<b>Section I - General</b>		Manufacturer's name ARCO CHEMICAL COMPANY		Material name ArcoTreat TBC-100	
Manufacturer's address 9100 W. 21st. Street Sand Springs, OK 74063				Emergency telephone (24 hour) 918-745-1029	
Name (brand-trade) and synonyms N/A			Chemical family Emulsion Breaker		
<b>Section II - Summary of hazardous information</b>		Summary			
TLV 300 ppm (Estimated)		DANGER: EXTREMELY FLAMMABLE - Keep away from heat, sparks, and open flame.  CAUTION: MODERATE SKIN, EYE, AND INHALATION HAZARD - Avoid prolonged or repeated skin contact. Avoid breathing vapors. Avoid eye contact.			
<b>Section III - Physical and reactivity data</b>		Boiling point (°F) 150°F	Evaporation rate (ratio of time) ( Ether = 1 ) >1	Other N/A	
Vapor pressure (mm Hg at 70 ° F) 48.9 (Calc.)	Incompatibility (materials to avoid) Strong acids, alkalies, and strong oxidize such as liquid chlorine and oxygen.				
Vapor density (air = 1 at 60-99° F) 2.3 (Calc.)	Stability Conditions to avoid ( X ) Stable ( ) Unstable Heat, open flame, and sparks				
Specific gravity (H <sub>2</sub> O = 1 at 39.2° F) 0.902	Hazardous polymerization may ( ) Occur ( X ) Not occur		Appearance and odor Brown liquid; alcohol odor		
Volatile characteristics Appreciable	Hazardous decomposition products Incomplete combustion may produce carbon monoxide and oxides of sulfur.				
Solubility in water Appreciable					
<b>Section IV - Fire and explosion data</b>		Flash point (°F) 62°F (method used) (D-56)	Flammable limits at normal atmos. temp. and pressure (% by volume in air)	Lower flammable limit 2	Upper flammable limit 36.5
Autoignition temp. (° F) 750°F (Approx.)		Extinguishing media Carbon dioxide, dry chemical, or alcohol type foam			
Special fire fighting procedures For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of the normal products of combustion or oxygen deficiencies.					
Unusual fire and explosion hazards EXTREMELY FLAMMABLE. This material releases flammable vapors at normal atmospheric temperatures and pressures; vapors when mixed in certain proportions with air (see Flammable Limits) can burn or be explosive in confined spaces if exposed to a source of ignition.					
<b>Section V - First aid and emergency procedures</b>		Note to physician If swallowed, induce vomiting.			
Eye contact	- Flush eyes with plenty of low pressure water.				
Skin contact	- Immediately wash skin with soap and water. Remove contaminated clothing and thoroughly clean before reuse.				
Inhalation	- Immediately remove from contaminated area for fresh air.				
Ingestion	- Induce vomiting by sticking finger down throat. Immediately obtain medical attention.				

**Section VI -  
Health hazard data**

## Primary hazard

Inhalation of vapors of this material may result in toxic effects.

Route of exposure	Affected	Signs and symptoms
Eye contact	X	This material may cause eye irritation upon direct contact.
Skin irritation	X	This material may cause skin irritation upon direct contact.
Inhalation	X	Prolonged exposure to excess vapor concentrations of this material may cause signs and symptoms of central nervous system depression such as headache, dizziness, loss of appetite, weakness and loss of coordination.
Ingestion	X	Ingestion in large quantities will cause poisoning.
Skin absorption		

## Effects of overexposure

Ingestion or inhalation of large quantities of vapor may cause headache, fatigue, nausea, visual impairment or complete blindness and respiratory failure.

**Section VII -  
Spill or leak procedure**

## Precautions if material is spilled or released

Eliminate all sources of ignition in vicinity of the spill or released vapor.

## Waste disposal methods

Soak up spill with sand or earth and shovel into container. Dispose of in approved dump site or incinerator. The contaminated area should be flushed with water being certain not to contaminate storm drain or water supplies.

**Section VIII - Special  
protection information**

## Ventilation

Use only in well ventilated area.

## Eye protection

Eye protection, such as chemical type goggles or face mask, should be worn whenever splashing, spraying, or other eye contact is likely.

## Skin protection

Avoid prolonged or repeated skin contact, and use good personal hygiene.

## Respiratory protection

When exposure above the established standard is likely, a respiratory protection program which complies with OSHA General Industry Standard 1910.134 (e) and respiratory equipment approved by NIOSH/MESA should be implemented.

## Other protection

N/A

**Section IX -  
Handling and storage**

**EXTREMELY FLAMMABLE.** Keep container closed when not in use. Store away from heat, open flame, or direct sunlight. Keep out of reach of children. Containers should be decontaminated and all residual contents removed before disposal.

## General comments

All electrical equipment in areas where material is stored and/or handled should be installed in accordance with applicable requirements of the National Electric Code, N.F.P.A.

## Date issued

Reviewed March, 1981

## Disclaimer of Liability

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of the material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without any warranty, express or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.

ARCO Chemical Company requests Customer to study this Data Sheet and become aware of Product hazards. To promote safe handling Customer should (1) notify its employees, agents and contractors of the information on this Data Sheet, and (2) furnish a copy of this Data Sheet to each of its customers for the Product and request such customers to notify their employees and customers for the Product of the information on this Data Sheet and of Product hazards and safety information.

**Section X - Supplement**

**FOR PRODUCTS CONTAINING HIGH BOILING AROMATIC HYDROCARBONS**

Information given below should be used in conjunction with that provided in the MSDS to which it is attached.

Reference: Page 1

**WARNING:** MAY BE HARMFUL TO SKIN. Avoid skin contact. Avoid breathing mists or vapor. This product contains high boiling aromatic hydrocarbons of a type which have produced skin tumors in experimental animals. Prolonged or repeated skin contact may cause irritation or more serious skin disorders. (See Section VI, Health Hazard Data on Page 2.)

Section V - First Aid and Emergency Procedure:

Eye Contact:	Flush with copious amounts of low-pressure water.
Skin Contact:	Promptly wash the contaminated skin with soap or mild detergent and water. Remove contaminated clothes and launder before reuse.
Inhalation:	Immediately remove from contaminated area to fresh air.
Ingestion:	If swallowed, DO NOT induce vomiting. Get medical attention immediately.

Reference: Page 2

Section VI - Health Hazard Data:

Primary Hazard:	Prolonged or repeated skin contact may cause irritation or more serious skin disorders.
Skin Irritation:	Skin irritation leading to dermatitis or more serious skin disorders may occur on prolonged or repeated skin contact.
Effect of Over-exposure:	Experiments have shown that solvents of the type contained in this product have caused tumors on the skin or experimental animals. This solvent contains high boiling aromatic hydrocarbons and some such aromatic hydrocarbons have been suspected as a cause of skin cancer in humans under condition of poor personal hygiene and prolonged or repeated contact.

Date issued

September, 1980

**Disclaimer of Liability**

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of the material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without any warranty, express or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.

Section X - Supplement

Reference: Page 2 (continued)

Section VII - Precautions if material is spilled or released:

For small spills, sue sand, earth, sawdust and place in appropriate container. For large spills, dike or impound. Immediately notify U. S. Coast Guard National Response Center (800-424-8802) of any spill that could reach waterways, including intermittent dry creeks and wetlands.

Waste Kispasal Methods:

Use approved waste disposal contractor or dispose by controlled incineration in compliance with Federal, State, or local regulations.

Section VIII - Special Protection Information

- Ventilation: Special ventilation may be required for conditions of handling at elevated temperatures.
- Eye Protection: Eye protection is recommended under normal conditions of use.
- Skin Protection: If skin contact is likely during the handling of this material, appropriate impervious clothing, gloves, and/or boots must be worn and appropriate facial protection utilized.
- Respiratory Protection: Respiratory protection approved by NIOSH/MESA should be worn where excessive vapor or mist are produced by product usage.

## SECTION I - PRODUCT IDENTIFICATION

Manufacturer: JETCO CHEMICALS, INC.  
P. O. BOX 1898  
HWY 31 EAST  
CORSIKANA TX 75151

Information Phone: 903-872-3011  
Emergency Phone: 903-874-9500  
CHEMTREC Phone: 800-424-9300

Product Class: Foaming Agent  
Trade Name : JET FOAM S-255  
Product Code : FOAMS255.2  
C.A.S. Number: Mixture  
Shipping Name: FLAMMABLE LIQUID, N.O.S. (CONTAINS METHANOL) UN1993

Hazard Ratings: Health - 2  
none -> extreme Fire - 1  
0 -> 4 Reactivity - 0  
Personal Protection - B

## SECTION II - HAZARDOUS INGREDIENTS

Ingredients	CAS #	Weight %	Exposure Limits ACGIH/TLV	OSHA/PEL	VP mm. HG
*METHANOL	67-56-1	20-50	200 ppm	200 ppm	96
		STEL= 250		250	
*1-T-BUTOXY-2-PROPANOL	57018-52-7	5-20	ppm	ppm	4.8

ALL Ingredients in this product are listed in the T.S.C.A. Inventory.

\* -> These items are listed on the SARA TITLE III Section 313 inventory

## SECTION III - PHYSICAL DATA

Boiling Range: 149 Deg. F  
Evap. Rate: Slower than n-Butyl Acetate  
Volatiles volume: N/DA %  
Appearance: Light Yellow Liquid  
V.O.C.: N/DA

Vapor Density: Heavier than Air.  
Liquid Density: Lighter than Water.  
Wgt per gallon: 8.198 Pounds.  
Spec. Gravity: 0.98

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: 1C Flash Point: 76 F LEL: N/DA

## -EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, water spray, foam, or water fog.

## -SPECIAL FIREFIGHTING PROCEDURES:

Appropriate breathing apparatus should be worn when fighting fires. Decomposition products possible. Water may be ineffective in fighting fires due to low flash point. Heat may build pressure/rupture closed container, spreading fire. Use water spray/fog for cooling.

## -UNUSUAL FIRE &amp; EXPLOSION HAZARDS:

Releases flammable vapors at normal ambient temperatures which can burn in open or explode if confined. Flammable vapors are heavier than air. May travel long distances along the ground before igniting/flashing back to vapor source. Water dilution may not suffice to raise flash point.



## =====

## SECTION V - HEALTH HAZARD DATA

## -----

## -CHRONIC HEALTH EFFECTS:

No information available.

## -EFFECTS OF OVEREXPOSURE:

INHALATION: May cause symptoms of depression, headache, dizziness, loss of appetite, weakness, lack of coordination, and severe irritation of mucous membranes and lungs. Concentrated exposure may also cause symptoms of lack of oxygen leading to collapse and possible death.

SKIN ABSORPTION: No significant signs or symptoms of skin absorption expected.

SKIN IRRITATION: May cause skin irritation, blistering, and/or dermatitis in some individuals.

INGESTION: May cause nausea, collapse, coma, and possible death.

EYE CONTACT: May cause severe eye irritation, burning, tearing, and redness.

CHRONIC HEALTH EFFECTS: No information available.

## -FIRST AID:

INHALATION: Remove to fresh air. Give oxygen and artificial respiration as needed. Obtain medical attention promptly.

EYE CONTACT: Flush eyes with low-pressure water for at least 15 minutes and obtain medical attention immediately. Prompt action is essential.

SKIN CONTACT: Wash affected area with soap and water. Remove contaminated clothing, including shoes, and clean thoroughly before reuse. Seek medical attention if irritation persists.

INGESTION: If conscious, give at least two glasses of water. Induce vomiting. Obtain medical aid immediately.

## =====

## SECTION VI - REACTIVITY DATA

STABILITY: [ ] Unstable [x] Stable

HAZARDOUS POLYMERIZATION: [ ] May occur [x] Will not occur

## -INCOMPATIBILITY:

Avoid strong oxidizing agents.

## -CONDITIONS TO AVOID:

Heat, sparks, open flame, and/or strong oxidants.

## -HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon dioxide, carbon monoxide, and/or nitrogen oxides.

## =====

## SECTION VII - SPILL OR LEAK PROCEDURES

## -----

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

Flammable. Release can cause fire/explosion/human health hazard/be toxic to aquatic life. Evacuate/limit access. Notify fire and environmental authorities in the event of large spills. Equip responders with proper protection. Stop release, prevent flow to sewers/public waters. Eliminate all ignition sources. Blanket with firefighting foam. Restrict water use for clean-up. Impound/recover large land spills. Soak up small spills with inert solids such as clay or (cont.)

## =====

## SECTION VII - SPILL OR LEAK PROCEDURES (cont.)

- 
- STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: (cont.)  
diatomaceous earth. Place in suitable disposal containers.  
Report per regulatory requirements.
  - WASTE DISPOSAL METHOD:  
Contaminated soil/water/product may be RCRA/OSHA hazardous waste due to potentially low flash point. Landfill at permitted sites. Use registered transporters. Incinerate concentrated liquids in systems compatible with liquid wastes where permitted under federal, state and local regulations. Consult waste disposal authorities.
  - SPILL REPORTABLE QUANTITY:

## =====

## SECTION VIII - SPECIAL PROTECTION INFORMATION

- 
- RESPIRATORY PROTECTION:  
At general use temperatures, an organic vapor cartridge respirator should be suitable. If exposure may exceed established standards, use of NIOSH/MSHA approved respiratory equipment operated in compliance with the OSHA Standard for Respiratory Protection (29 CFR 1910.134) is required.
  - VENTILATION:  
Local exhaust ventilation may be required to meet exposure standards in addition to good room ventilation.
  - PROTECTIVE GLOVES:  
Impervious protective gloves, boots, and head protection should be worn. Equipment should be cleaned thoroughly after each use.
  - EYE PROTECTION:  
Eye protection, including both chemical splash goggles and face shield, must be worn when splashing, spraying, or other eye contact is possible.
  - OTHER PROTECTIVE EQUIPMENT:  
Emergency eyewash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, smoking, or using toilet facilities. Promptly remove soiled clothing; washing thoroughly before reuse. Shower after work using plenty of soap and water.

## =====

## SECTION IX - SPECIAL PRECAUTIONS

- 
- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:  
Store in tightly sealed drums or in properly ventilated tanks away from heat, sparks, open flames, and strong oxidants. Use only non-sparking tools. Store drums with bung in up position. Carefully vent internal pressure before beginning transfer. Electrical equipment should conform to national electric code. Handle empty containers with care; vapor residue may be flammable. Vapor space above liquid may be flammable unless blanketed with inert gas.

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SECTION IX - SPECIAL PRECAUTIONS (cont.)

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-OTHER PRECAUTIONS:

Equipment exposed to this material should be thoroughly drained,  
water-washed, and purged prior to maintenance operations.

=====

SECTION X - DISCLAIMER

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-DISCLAIMER:

The submission of this MSDS may be required by law, but this is  
not an assertion that the substance is hazardous when used in  
accordance with proper safety practices and normal handling  
procedures. Data supplied is for use only in connection with  
occupational safety and health.

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

GENERAL INFORMATION

DOT PROPER SHIPPING NAME UN/NA NUMBER  
FLAMMABLE LIQUID N.O.S. UN 1993  
DOT HAZARD CLASS  
FLAMMABLE LIQUID  
NFPA CLASSIFICATION: HEALTH (2) FLAMMABILITY (4) REACTIVITY (0)  
SPECIFIC HAZARD (H/A)  
DOT/CERCLA RQ: 18,200 LBS (METHANOL)

## 2 - SUMMARY OF HAZARDS

DANGER

PHYSICAL HAZARDS: EXTREMELY FLAMMABLE LIQUID; CORROSIVE TO METALS

ACUTE HEALTH EFFECTS: CORROSIVE TO EYES  
(SHORT-TERM) CORROSIVE TO SKIN  
NO DATA FOUND; SUSPECT INGESTION HAZARD  
NO DATA ON SKIN ABSORPTION FOUND  
NO DATA ON INHALATION FOUND

CHRONIC HEALTH EFFECTS: INGESTION OF THIS MATERIAL, WHICH CONTAINS  
(LONG-TERM) METHANOL, CAN CAUSE SERIOUS METABOLIC ACIDOSIS  
AND MAY LEAD TO OPTIC NERVE DAMAGE. SEE  
SUPPLEMENT.

### 3 - COMPONENTS

\* THIS IS A SARA SECTION 313 LISTED CHEMICAL

## 4 - PHYSICAL AND CHEMICAL DATA

BOILING POINT	PK
AP 149F	AP 10.0 TO 12.0
FREEZING POINT	DRY POINT
N/DA	N/DA
SPECIFIC GRAVITY (H2O=1 AT 39.2F)	VOLATILE CHARACTERISTICS
AP .92	APPRECIABLE

OFC(R) WT-675 WATER TREATING COMPOUND  
MSDS ID: 6-005492

#### 4 - PHYSICAL AND CHEMICAL DATA (continued)

VISCOSITY UNITS, TEMP. (BROOK)  
2000 16F  
VAPOR PRESSURE  
AP 44.3 mm HG AT 70F  
VAPOR SP GR (AIR=1 AT 60 - 90F)  
AP .9  
SOLUBILITY IN WATER  
COMPLETE  
STABILITY  
STABLE  
HAZARDOUS POLYMERIZATION  
NOT EXPECTED TO OCCUR  
APPEARANCE AND ODOR  
AMBER LIQUID; ALCOHOL ODOR  
CONDITIONS AND MATERIALS TO AVOID  
HEAT, OPEN FLAME AND ELEVATED PRESSURE. DO NOT USE MILD STEEL, ALUMINUM, OR  
BRASS FOR TRANSPORTATION, HANDLING, OR STORAGE.  
STRONG OXIDIZING AGENTS  
HAZARDOUS DECOMPOSITION PRODUCTS  
WHEN HEATED TO DECOMPOSITION, MAY EMIT CARBON MONOXIDE, CARBON DIOXIDE, FOR-  
MALDEHYDE, AND COMPOUNDS OF NITROGEN.

#### 5 - OCCUPATIONAL EXPOSURE LIMITS

SUBSTANCE	SOURCE	DATE	TYPE	VALUE	TIME
ISOPROPYL ALCOHOL	ACGIH	1985	TLV	400 PPM	8 HRS
			STEL	500 PPM	15 MIN
	OSHA	1971	PEL	400 PPM	8 HRS
METHYL ALCOHOL-SKIN	ACGIH	1985	TLV	200 PPM	8 HRS
			STEL	250 PPM	15 MIN
METHYL ALCOHOL	OSHA	1971	PEL	200 PPM	8 HRS

#### 6 - FIRE AND EXPLOSION

FLASH POINT METHOD=(TCC )  
AP 62F  
AUTOIGNITION TEMP. METHOD=  
878F  
FLAMMABLE LIMITS (% VOLUME IN AIR)  
AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE  
LOWER: 6.0 UPPER: 36.5  
FIRE AND EXPLOSION HAZARDS  
RELEASES FLAMMABLE VAPORS BELOW NORMAL AMBIENT TEMPERATURES. WHEN MIXED  
WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE  
IF CONFINED. FLAMMABLE VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG  
DISTANCES ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE.  
EXTINGUISHING MEDIA  
DRY CHEMICAL  
CO2  
WATER SPRAY  
ALCOHOL  
WATER FOG  
SPECIAL FIREFIGHTING PROCEDURES  
DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPO-  
SITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION.  
HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREAS-  
ING RISK OF BURNS/INJURIES. WATER MAY BE INEFFECTIVE IN FIREFIGHTING DUE TO  
LOW FLASH POINT. USE WATER SPRAY/FOG FOR COOLING. EVEN IF MATERIAL IS WATER  
SOLUBLE, MAY NOT BE PRACTICAL TO EXTINGUISH FIRE BY WATER DILUTION. NOTIFY  
AUTHORITIES IF LIQUID ENTERS SEWER/PUBLIC WATERS.

OFC(R) WT-675 WATER TREATING COMPOUND  
MSDS ID: 6-005492

## 7 - HEALTH HAZARDS

### ROUTES OF EXPOSURE

#### INHALATION -- PRIMARY ROUTE

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA IS KNOWN TO EXIST.

#### EYE CONTACT -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO CAUSE EYE IRRITATION.

#### SKIN ABSORPTION

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST.

#### SKIN IRRITATION -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A SKIN IRRITANT.

#### INGESTION

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INGESTION HAZARD.

#### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

THIS MATERIAL OR ITS EMISSIONS MAY AFFECT THE CENTRAL NERVOUS SYSTEM AND/OR AGGRAVATE PRE-EXISTING DISORDERS. PROLONGED OBSERVATION MAY BE INDICATED.

## 8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES

### RESPIRATORY PROTECTION

IF EXPOSURE CAN EXCEED THE PEL/TLV, USE ONLY NIOSH/MSHA APPROVED AIR-PURIFYING OR SUPPLIED AIR RESPIRATOR OPERATED IN A POSITIVE PRESSURE MODE.

### EYE PROTECTION

EYE PROTECTION, INCLUDING BOTH CHEMICAL SPLASH GOGGLES AND FACE SHIELD, MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPRAYING LIQUID OR AIRBORNE PARTICLES. CONTACT LENSES MUST NOT BE WORN.

### SKIN PROTECTION

WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.

### ENGINEERING CONTROLS

EITHER LOCAL EXHAUST OR GENERAL ROOM VENTILATION IS USUALLY REQUIRED.

### OTHER HYGENIC PRACTICES

EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

### OTHER WORK PRACTICES

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

## 9 - EMERGENCY AND FIRST AID

### INHALATION

IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

### EYE CONTACT

IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

### SKIN CONTACT

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH W/LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST. SEEK MEDICAL ATTENTION IF ILL EFFECT OR IRRITATION DEVELOPS.

### INGESTION

IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. INDUCE VOMITING. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

### EMERGENCY MEDICAL TREATMENT PROCEDURES

METHANOL INGESTION IS LIFE-THREATENING. INDUCE VOMITING WITH SYRUP OF IPECAC. FOLLOW EMESIS WITH MODERATE AMOUNTS OF WATER ORALLY.

SYMPTOM ONSET MAY BE DELAYED. ETHANOL THERAPY MAY BE INDICATED.

OFC(R) WT-675 WATER TREATING COMPOUND

MSDS ID: 6-005492

## 10. PRECAUTIONS

### PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED

EXTREMELY FLAMMABLE LIQUID. RELEASE CAUSES IMMEDIATE FIRE/EXPLOSION HAZARD. EXTINGUISH ALL IGNITION SOURCES. IMPOUND/RECOVER LARGE LAND SPILLS; SOAK UP SMALL SPILL. ON WATER, MAY BIODEGRADE. CONTAIN/MINIMIZE DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS.

### WASTE DISPOSAL METHODS

CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO POTENTIALLY LOW FLASH POINT (SEE 40 CFR 261 AND 29 CFR 1910). WASTE MAY BE DESIGNATED D001 UNDER RCRA LISTING DUE TO PRESENCE OF ISOPROPYL ALCOHOL. LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

## 11. ADDITIONAL PRECAUTIONS

### HANDLING AND STORAGE PROCEDURES

STORE IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAME, STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. STORE DRUMS WITH BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE REMOVING CLOSURE. CONTAINERS MUST BE GROUNDED BEFORE BEGINNING TRANSFER. ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. HANDLE "EMPTY" CONTAINERS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE. VAPOR SPACE ABOVE LIQUID MAY BE FLAMMABLE/EXPLOSIVE UNLESS BLANKETED WITH INERT GAS.

### DECONTAMINATION PROCEDURES

EQUIPMENT CONTAINING THIS MATERIAL SHOULD BE ISOLATED AND THOROUGHLY DRAINED, WASHED AND PURGED PRIOR TO MAINTENANCE/REPAIR OPERATIONS. WEAR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT.

## 12. LABEL INFORMATION

### USE STATEMENT

FOR INDUSTRIAL USE ONLY  
KEEP OUT OF REACH OF CHILDREN

### SIGNAL WORD

DANGER

### PHYSICAL HAZARDS

EXTREMELY FLAMMABLE  
CORROSIVE TO METALS

### HEALTH HAZARDS

SEVERE EYE IRRITANT  
SKIN IRRITANT  
INGESTION HAZARD  
MAY CAUSE LONG-TERM ADVERSE HEALTH EFFECTS

### PRECAUTIONARY MEASURES

DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.  
SPILL/LEAK CAN CAUSE FIRE/EXPLOSION.  
DO NOT STORE IN ALUMINUM/COPPER/BRASS/MILD STEEL.  
DO NOT GET IN EYES.  
AVOID CONTACT WITH SKIN.  
DO NOT BREATHE VAPOR.  
USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.  
DO NOT TAKE INTERNALLY.  
PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS.  
WASH THOROUGHLY AFTER HANDLING.

## 13. SUPPLEMENT

### CHRONIC HEALTH HAZARDS-SECTION 2 AND 7

ONE OF THE COMPONENTS OF THIS PRODUCT (ISOPROPYL ALCOHOL) HAS BEEN REPORTED IN ONE STUDY TO BE FETOTOXIC AT LEVELS OF 2.5% IN DRINKING WATER. NO TERATOGENIC EFFECTS WERE, OR HAVE BEEN, REPORTED. THERE ARE NO

OFC(R) WT-675 WATER TREATING COMPOUND  
MSDS ID: 6-005492

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#### 13 - SUPPLEMENT (continued)

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REPORTS OF ADVERSE REPRODUCTIVE EFFECTS IN HUMANS EXPOSED TO THIS  
CHEMICAL.

NOTE -- QUALIFIERS AND CODES USED IN THIS MSDS

EQ = EQUAL	AP = APPROXIMATELY
LT = LESS THAN	GT = GREATER THAN
TR = TRACE	UK = UNKNOWN
N/AP = NOT APPLICABLE	N/P = NO APPLICABLE INFORMATION FOUND
N/OA = NO DATA AVAILABLE	

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#### 14 - DISCLAIMERS

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SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM  
SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

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

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

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

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



# JETCO CHEMICALS

## MATERIAL SAFETY DATA SHEET

JET COTE 553

### 1. GENERAL INFORMATION

JETCO CHEMICALS, INC.  
P.O. BOX 1898  
CORNICANA, TX. 75151

EMERGENCY NUMBER : 214-874-9500  
CHEMTREC NUMBER: 800-424-9300  
FOR OTHER INFO. CALL: 214-872-3011

TRADE NAME: JET COTE 553

GENERIC NAME: SCALE INHIBITOR

D. O. T. REQUIREMENTS:

NOT REGULATED

SHIPPING NAME: JET COTE 553

### 2. SUMMARY OF HAZARDS

#### PHYSICAL HAZARDS:

ACUTE HEALTH EFFECT:

ANGER!  
CAUTION!  
CAUTION!  
CAUTION!

EXTREME INGESTION HAZARD  
MODERATE EYE IRRITANT  
MODERATE INHALATION HAZARD  
MODERATE SKIN IRRITANT

CHRONIC HEALTH EFFECT:

NO INFORMATION AVAILABLE.

### 3. COMPONENTS & EXPOSURE LIMITS

COMPONENT NAME	% COMPONENT	CAS NUMBER	SOURCE	VALUE/UNITS	TYPE	DATE	TIME
ETHYLENE GLYCOL	20 - 30	107-21-1	ACGIH	50 ppm	TLV	1987	8 HRS

### 4. PHYSICAL & CHEMICAL DATA

ODOR:	MUSTY	VAPOR DENSITY:	GT 1	SOLUBILITY	
APPEARANCE:	CLEAR LIGHT YELLOW LIQUID	(AIR = 1.0)		IN WATER :	COMPLETE
BOILING POINT:	AP 212 F	SPECIFIC GRAVITY: 1.189 @ 15/15 C		REACTIVITY	
VAPOR PRESSURE:	N/DA	(WATER = 1.0)		IN WATER :	NONREACTIVE

### 5. REACTIVITY DATA

STABILITY:	STABLE	MATERIALS TO AVOID:	STRONG OXIDIZING AGENTS
HAZARDOUS POLYMERIZATION:	NOT EXPECTED	CONDITIONS TO AVOID:	NONE EXPECTED
HAZARDOUS DECOMPOSITION PRODUCTS:	CARBON MONOXIDE, CARBON DIOXIDE, OXIDES OF NITROGEN		

### 6. FIRE AND EXPLOSION DATA

FLASH POINT:	ABOVE 200 F	FLAMMABLE LIMITS:	LOWER:	N/DA
AUTOIGNITION TEMP.:	N/AP	(% VOLUME IN AIR)	UPPER:	N/DA
EXTINGUISHING MEDIA:	DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY, FOAM OR WATER FOG			

#### SPECIAL FIRE FIGHTING PROCEDURES:

Self contained breathing apparatus should be worn when fighting fires. Decomposition products possible. Water may be ineffective in fighting fire due to low flash point. Heat may build pressure/rupture closed container. Use water spray/fog for cooling. Fire fighters should remain upwind of fires.

#### UNUSUAL FIRE AND EXPLOSION INFORMATION:

None expected.

## 7. HEALTH HAZARDS

ROUTE OF EXPOSURE	PRIMARY ROUTE	SIGNS & SYMPTOMS
INHALATION:	[X]	May cause symptoms of depression, headache, dizziness, loss of appetite, weakness and lack of coordination
SKIN ABSORPTION:	[X]	Symptoms and effects similar to ingestion can occur, especially in infants.
SKIN IRRITATION:	[X]	May cause skin irritation, blistering and/or dermatitis upon direct contact.
INGESTION:	[X]	Drunkenness, nausea, vomiting, severe stomach pain, dimmed vision progressing to coma and possible death may occur.
EYE CONTACT:	[X]	May cause mild eye irritation, burning, tearing, and redness.
CHRONIC HEALTH EFFECTS:		No information available.

## 8. PROTECTIVE EQUIPMENT / CONTROL MEASURES

## RESPIRATORY PROTECTION:

At general use temperature, an organic vapor cartridge respirator is usually suitable. If exposure may exceed the PEL/TLV, use of a NIOSH/MSHA approved supplied air respirator operated in a positive pressure mode as specified in OSHA guidelines for chemical hazards is required.

## EYE PROTECTION:

Eye protection, including chemical splash goggles or face shield, should be worn when splashing, spraying or other eye contact is possible. Contact lenses should not be worn.

## SKIN PROTECTION:

Impervious protective gloves, boots, and head protection should be worn. Equipment should be cleaned thoroughly after each use.

## ENGINEERING CONTROLS:

Local exhaust ventilation may be required to meet exposure standard(s) in addition to general room ventilation.

## OTHER HYGIENE AND

## WORK PRACTICES:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing; washing thoroughly before reuse. Shower after work using plenty of soap and water.

## 9. EMERGENCY FIRST AID

## INHALATION:

Remove to fresh air. Give oxygen or artificial respiration as needed. Obtain medical attention promptly.

## EYE CONTACT:

Flush eyes with low pressure water for at least 15 minutes and obtain medical attention immediately. Prompt action is essential.

## SKIN CONTACT:

Wash affected area with soap & water. Remove contaminated clothing, including shoes, and clean thoroughly before reuse. Seek medical attention.

## INGESTION:

If conscious, give at least two glasses of water to dilute. Induce vomiting. Obtain medical aid immediately.

## MATERIAL SAFETY DATA SHEET

JET COTE 553

## 10. SPILL &amp; DISPOSAL

PRECAUTIONS IF MATERIAL  
IS SPILLED OR RELEASED:

Release can be human health hazard/be toxic to aquatic life. Evacuate/limit access. Notify fire and environmental authorities. Equip responders with proper protection. Stop release, prevent flow to sewers/public waters. Restrict water use for cleanup. Impound/recover large land spill. Soak up small spill with inert solids, use suitable

disposal

containers. Report per regulatory requirements.

## WASTE DISPOSAL METHOD:

Contaminated product/soil/water may be RCRA/OSHA hazardous waste due to potential for eye irritation and water pollution. Landfill solids at permitted sites. Use registered transporters. Incinerate concentrated liquids in systems compatible with liquid wastes where permitted under Federal, State and local regulations. Consult waste disposal authorities.

## SPILL REPORTABLE QUANTITY:

National Response Center 800-424-8802

NOTE: ETHYLENE GLYCOL IS A "SARA" TITLE III REGULATED CHEMICAL.

## 11. ADDITIONAL PRECAUTIONS

HANDLING AND  
STORAGE PROCEDURE:

Store in tightly closed, properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Use only non-sparking tools. Store drums with bung in up position. Carefully vent internal pressure before beginning transfer. Electrical equipment should conform to national electric code. Handle "empty" containers with care/vapor residue may be combustible. Vapor space above liquid may be combustible/explosive unless blanketed with inert gas.

DECONTAMINATION  
PROCEDURE:

Equipment exposed to this material should be thoroughly drained, washed and purged prior to maintenance operations.

## 12. SUPPLEMENT

NOTE ----- QUALIFIERS AND CODES USED IN THIS MSDS.

EQ = EQUAL	AP = APPROXIMATELY
LT = LESS THAN	GT = GREATER THAN
TR = TRACE	UK = UNKNOWN
N/AP = NOT APPLICABLE	N/P = NO APPLICABLE INFORMATION FOUND
N/DA = NO DATA AVAILABLE	

## 13. DISCLAIMER

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

The conditions or methods of handling, storage, use and disposal of the products 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 in any way connected with the handling, storage, use or disposal of the product.

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

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

Prepared by: R.W. PIKE  
Date: 8-14-90

MATERIAL SAFETY DATA SHEET

CAS NUMBER: 2571  
 PRODUCT NUMBER: INC 2571  
 PRODUCT NAME: INC 2571 Paraffin Solvent / Dispersant  
 Purity NUMBER: - -0  
 CHEMICAL NAME: Mixture of Surfactants

SECTION I

MANUFACTURER: / VENDOR: InterChem, Inc.

ADDRESS: 3803 Mankins  
 Odessa, TX 79763

EMERGENCY TELEPHONE NUMBER: (915)550-7027

INFORMATION TELEPHONE NUMBER: (915)550-7027

DATE PREPARED: 03/01/94

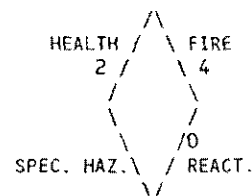
HMIS RATINGS:

HEALTH: 2

FIRE: 4

REACTIVITY: 0

PERSONAL PROTECTION:



SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CAS NUMBER	HAZARDOUS COMPONENT	SUB- SARA				OSHA PEL	ACGIH TLV	OTHER LIMITS	
		NTP	IARC	PART/Z	313			RECOMMENDED	PERCENT
138-86-3	Terpenes	?	?	?	?	NI	NI	15-20%	
8030-30-6	Naphtha, solvent	?	?	?	?	100	NI	30-35%	

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	180 °F.	SPECIFIC GRAVITY (H2O = 1)	0.92300
VAPOR PRESSURE (mm Hg.)	12.4	MELTING POINT	NI
VAPOR DENSITY (AIR = 1)	2.1	EVAPORATION RATE (Butyl Acetate = 1)	Appreci

SOLUBILITY IN WATER: Dispersible at 60° F.

APPEARANCE AND ODOR: Amber Liquid, Aromatic Odor

OTHER INFORMATION:

Viscosity Units = N/A      pH = N/A  
 Freezing Point < 10° F.      Dry Point = Unknown

Density (Lb./Gal.) = 7.691

DANGER

Physical Hazards:-  
 Flammable Liquid

Generic Name:- Mixture of Surfactants, Isopropanol, Terpenes

UN/NA Number:- UN 1993

DOT Response Number:- 27

DOT Proper Shipping Name:- FLAMMABLE LIQUID, n.o.s.

DOT Hazard Class:- 3

DOT Packing Group:- II

DOT/CERCLA RQ:- N/App.

This product contains no SARA Section 313 Listed Chemicals

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 72 ° F.	FLAMMABLE LIMITS: LEL: 2 %	UEL: 12 %
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EXTINGUISHING MEDIA:

Dry Chemical  
 CO2  
 Water Spray  
 Water Fog

---

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (continued)

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INITIAL FIRE FIGHTING PROCEDURES:

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

Fight fire from safe distance / protected location.

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

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

---

UNUSUAL FIRE FIGHTING PROCEDURES:

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

---

SECTION V - REACTIVITY DATA

---

STABILITY:

Stable under normal conditions.

---

INCOMPATIBILITY (MATERIALS TO AVOID):

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

---

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

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

---

HAZARDOUS POLYMERIZATION:

Not expected to occur.

---

SECTION VI - HEALTH HAZARD DATA

---

ROUTE(S) OF ENTRY:

Inhalation:-

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

Eye contact:- Primary Route

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

Skin absorption:-

Exposure to a small quantity of this material can result in rapid absorption through the skin, causing a significant health hazard.

Skin irritation:-

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

Ingestion:-

No data available. Ingestion of this material may result in aspiration into the lungs causing chemical pneumonia.

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HEALTH HAZARDS (ACUTE AND CHRONIC):

Acute Health Effects:- (Short Term)

Irritant to Eyes.

Irritant to Skin.

Irritant to nasal passages.

Severe Ingestion Hazard.

Will rapidly absorb through the skin causing significant health hazard.

---

SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-

Irritation or redness of the skin may develop after exposure.

Contact:-

Severe eye irritation may develop on exposure.

Inhalation:-

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

Inhalation:-

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

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SECTION VI - HEALTH HAZARD DATA (Continued)

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LOCAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

---

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

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

Eye Contact:-

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

Skin Contact:-

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

Ingestion:-

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

Emergency Medical Treatment Procedures:-

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

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

Vigorous anti-inflammatory/steroid treatment may be required at first evidence of pulmonary/upper airway edema.

---

OTHER HEALTH WARNINGS:

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

---

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

---

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

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

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

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

---

WASTE DISPOSAL METHOD:

Contaminated product/soil/water may be RCRA/OSHA hazardous waste due to potentially low flash point (see 40 CFR 261 and 29 CFR 1910). Waste may be designated D001 under RCRA listing due to presence of Isopropyl Alcohol. Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids, Avoid flameouts. Assure emissions comply with applicable regulations. Dilute Aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations.

---

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

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

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

---

OTHER PRECAUTIONS:

Wash Thoroughly after handling.

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

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

Keep Container closed when not in use.

Empty container may contain hazardous residues.

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SECTION VIII - CONTROL MEASURES

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VENTILATION REQUIREMENTS:

Other local exhaust or general room ventilation is usually required.

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PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

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

Eye Protection:-

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

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SECTION VIII - CONTROL MEASURES (Continued)

---

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

Protection:-

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

Other Hygienic Practices:-

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

Other Work Practices:-

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

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SECTION IX - ADDITIONAL INFORMATION

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ADDITIONAL MANUFACTURER WARNINGS:

EXTREMELY FLAMMABLE.

High Skin Contact Hazard.

May cause long-term adverse health effects.

Skin contact penetrant.

Mucous membrane irritant.

High ingestion hazard - Chemical pneumonia.

Severe eye irritant.

Isopropanol has been reported in one animal study to be fetotoxic at levels of 2.5% in drinking water. No teratogenic effects were, or have been, reported. There are no reports of adverse reproductive effects in humans exposed to this chemical.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

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

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

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

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

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

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(7)

MATERIAL SAFETY DATA SHEET

3 NUMBER: 2560 (1560)  
T NUMBER: INC 2560  
DUCT NAME: INC 2560 Paraffin Solvent / Dispersant  
NUMBER: - -0  
CHEMICAL NAME: Mixture of Solvents and Surfactants

SECTION I

MANUFACTURER: / VENDOR: InterChem, Inc.

ADDRESS: 3803 Mankins  
Odessa, TX 79763

EMERGENCY TELEPHONE NUMBER: (915)550-7027

INFORMATION TELEPHONE NUMBER: (915)550-7027

DATE PREPARED: 03/01/94

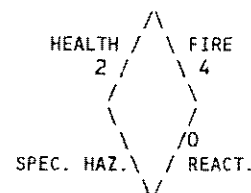
HMIS RATINGS:

HEALTH: 2

FIRE: 4

REACTIVITY: 0

PERSONAL PROTECTION:



SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CAS NUMBER	HAZARDOUS COMPONENT	SUB-			SARA		ACGIH TLV	OTHER LIMITS
		NTP	IARC	PART/2	313	OSHA PEL		RECOMMENDED PERCENT
108-10-1	Methyl isobutyl ketone	?	?	?	Y	50 ppm.	50 ppm.	Propriet.
8030-30-6	Naphtha, solvent	?	?	?	Y	100 ppm.	NI	Propriet.
108-88-3	Toluene	?	?	?	Y	100 ppm.	100 ppm.	Propriet.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	180 °F.	SPECIFIC GRAVITY (H2O = 1)	0.92300
DR PRESSURE (mm Hg.)	23	MELTING POINT	NI
R DENSITY (AIR = 1)	3.3	EVAPORATION RATE (Butyl Acetate = 1)	Moderat

SOLUBILITY IN WATER: Slightly Dispersible at 60° F.

APPEARANCE AND ODOR: Dark Amber liquid, Aromatic Odor

OTHER INFORMATION:

Viscosity Units = N/A pH = N/A  
Freezing Point < 10° F. Dry Point = Unknown

Density (Lb./Gal.) = 7.147

DANGER

Physical Hazards:-  
Flammable Liquid

Generic Name:- Mixture of Surfactants, Solvents

UN/NA Number:- UN 1993

DOT Response Number:- 27

DOT Proper Shipping Name:- FLAMMABLE LIQUID, n.o.s.

DOT Hazard Class:- 3

DOT Packing Group:- II

DOT/CERCLA RQ:- 2,900 Lbs. (Toluene)

This product contains chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. The corresponding CAS numbers and percent by weight are listed above.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 59 ° F.	FLAMMABLE LIMITS: LEL: 1 %	UEL: 12 %
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EXTINGUISHING MEDIA:

Dry Chemical  
CO2  
Water Spray



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SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

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ter Fog

SPECIAL FIRE FIGHTING PROCEDURES:

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

Fight fire from safe distance / protected location.

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

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

UNUSUAL FIRE FIGHTING PROCEDURES:

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

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SECTION V - REACTIVITY DATA

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STABILITY:

Stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

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

Strong Alkalies.

Heat, sparks, open flames.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

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

HAZARDOUS POLYMERIZATION:

Not expected to occur.

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SECTION VI - HEALTH HAZARD DATA

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ROUTE(S) OF ENTRY:

Inhalation:-

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

Eye contact:- Primary Route

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

Skin absorption:-

Exposure to a small quantity of this material can result in rapid absorption through the skin, causing a significant health hazard.

Skin irritation:-

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

Ingestion:-

No data available. Ingestion of this material may result in aspiration into the lungs causing chemical pneumonia.

HEALTH HAZARDS (ACUTE AND CHRONIC):

Acute Health Effects:- (Short Term)

Irritant to Eyes.

Irritant to Skin.

Irritant to nasal passages.

Severe Ingestion Hazard.

Will rapidly absorb through the skin causing significant health hazard.

SIGNS AND SYMPTOMS OF EXPOSURE:

On Contact:-

Irritation or redness of the skin may develop after exposure.

On Contact:-

Severe eye irritation may develop on exposure.

Ingestion:-

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

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SECTION VI - HEALTH HAZARD DATA (Continued)

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Lation:-  
oughing and shortness of breath may result. More severe symptoms are also possible.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

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

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

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

Eye Contact:-

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

Skin Contact:-

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

Ingestion:-

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

Emergency Medical Treatment Procedures:-

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

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

Vigorous anti-inflammatory/steroid treatment may be required at first evidence of pulmonary/upper airway edema.

HEALTH WARNINGS:

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

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SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

---

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

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

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

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

WASTE DISPOSAL METHOD:

Contaminated product/soil/water may be RCRA/OSHA hazardous waste due to potentially low flash point (see 40 CFR 261 and 29 CFR 1910). Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids, Avoid flameouts. Assure emissions comply with applicable regulations.

Dilute Aqueous waste may biodegrade.

Avoid overloading/poisoning plant biomass.

Assure effluent complies with applicable regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

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

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

OTHER PRECAUTIONS:

Wash Thoroughly after handling.

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

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

Keep Container closed when not in use.

Empty container may contain hazardous residues.

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

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SECTION VIII - CONTROL MEASURES

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VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

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

Eye Protection:-

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

Skin Protection:-

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

Other Hygienic Practices:-

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

Other Work Practices:-

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

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SECTION IX - ADDITIONAL INFORMATION

---

ADDITIONAL MANUFACTURER WARNINGS:

EXTREMELY FLAMMABLE.

High Skin Contact Hazard.

May cause long-term adverse health effects.

Skin contact penetrant.

Mucous membrane irritant.

High ingestion hazard - Chemical pneumonia.

Severe eye irritant.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

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

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This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).1

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# MATERIAL SAFETY DATA SHEET

Printed 05-12-1992

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Page 1

## OFC(R) CL-922 CLEANER

OS ID: 6-002148

### 1 - GENERAL INFORMATION

BAKER PERFORMANCE CHEMICALS, INC.  
A Baker Hughes company  
3920 ESSEX LANE, P.O. BOX 27714  
HOUSTON, TEXAS 77227-7714

800-424-9300 ChemTrec  
800-231-3606 Emergency  
713-599-7400 Information

GENERIC NAME

DATE REVISED: 08-21-90

DOT PROPER SHIPPING NAME  
COMBUSTIBLE LIQUID, N.O.S.  
(ISOPROPANOL)  
DOT HAZARD CLASS  
COMBUSTIBLE LIQUID

UN/NA NUMBER  
NA 1993

### 2 - SUMMARY OF HAZARDS

**WARNING**

PHYSICAL HAZARDS: MODERATELY COMBUSTIBLE LIQUID.

ACUTE HEALTH EFFECTS:  
(SHORT TERM)

NO DATA FOUND; SUSPECT EYE CONTACT HAZARD.  
NO DATA FOUND; SUSPECT INHALATION HAZARD.  
NO DATA FOUND; SUSPECT SKIN IRRITATION HAZARD.  
NO DATA FOUND; SUSPECT INGESTION HAZARD.  
NO DATA FOUND; NO EXPECTED SKIN ABSORPTION HAZARD

CHRONIC HEALTH EFFECTS:  
(LONG TERM)

THIS PRODUCT CONTAINS A DETERGENT COMPONENT WHICH  
IF CONTACTED REPEATEDLY MAY CAUSE DERMATITIS.

### 3 - COMPONENTS

COMPONENT NAME	CAS NUMBER
TRADE SECRET 2148-01#	
ISOPROPYL ALCOHOL	67-63-0
TRADE SECRET 2148-02#	
TRADE SECRET 2148-03#	
WATER	7732-18-5

THIS PRODUCT CONTAINS NO SARA SECTION 313 LISTED CHEMIC  
US TSCA INVENTORY: ALL COMPONENTS ARE INCLUDED ON THE

### 4 - PHYSICAL AND CHEMICAL DATA

BOILING POINT	PH
180F	N/AP
FREEZING POINT	DRY POINT
N/AP	N/AP
SPECIFIC GRAVITY (H2O=1 AT 39.2F)	VOLATILE CHARACTERISTICS
1.09	APPRECIABLE
VISCOSITY UNITS, TEMP.	SOLUBILITY IN WATER
N/AP	COMPLETE
VAPOR PRESSURE	STABILITY
17.5 MM HG AT 70F	STABLE
VAPOR SP GR (AIR=1 AT 60 - 90F)	HAZARDOUS POLYMERIZATION
.7	NOT EXPECTED TO OCCUR
APPEARANCE AND ODOR	
LIGHT AMBER LIQUID; NO DISTINCT ODOR	

**OFC<sup>(R)</sup> CL-922 CLEANER**

ID: 6-002148

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**4 - PHYSICAL AND CHEMICAL DATA (continued)**

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CONDITIONS AND MATERIALS TO AVOID  
HEAT SPARKS AND OPEN FLAME  
STRONG ACIDS AND STRONG OXIDIZING AGENTS  
HAZARDOUS DECOMPOSITION PRODUCTS  
INCOMPLETE COMBUSTION MAY RESULT IN OXIDES OF PHOSPHOROUS, SULFUR, NITROGEN A  
POSSIBLY AQUEOUS AMMONIA

---

**5 - OCCUPATIONAL EXPOSURE LIMITS**

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SUBSTANCE	SOURCE	DATE	TYPE	VALUE	TIME
ISOPROPYL ALCOHOL	ACGIH	1985	TLV	400 PPM	8 HRS
			STEL	500 PPM	15 MIN
ISOPROPYL ALCOHOL	OSHA	1984	PEL	400 PPM	8 HRS

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**6 - FIRE AND EXPLOSION**

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FLASH POINT METHOD=(TCC )      AUTOIGNITION TEMP. METHOD=  
105F      AP 750F

**FLAMMABLE LIMITS (% VOLUME IN AIR)****AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE**

LOWER: 2.0      UPPER: 12.0

**FIRE AND EXPLOSION HAZARDS**

WHEN HEATED ABOVE FLASH POINT, RELEASES VAPORS. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED. VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG DISTANCES ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE. FINE SPRAYS/MIST MAY BE COMBUSTIBLE AT TEMPERATURES BELOW NORMAL FLASH POINT.

**EXTINGUISHING MEDIA**

DRY CHEMICAL

CO2

WATER SPRAY

**SPECIAL FIREFIGHTING PROCEDURES**

DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPOSITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREASING RISK OF BURNS/INJURIES. USE WATER SPRAY/FOG FOR COOLING. AVOID FROTHING/STEAM EXPLOSION. BURNING LIQUID MAY FLOAT ON WATER. ALTHOUGH SOLUBLE, MAY NOT BE PRACTICAL TO EXTINGUISH FIRE BY WATER DILUTION. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/PUBLIC WATERS.

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**7 - HEALTH HAZARDS**

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**ROUTES OF EXPOSURE****INHALATION -- PRIMARY ROUTE**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INHALATION HAZARD.

**EYE CONTACT -- PRIMARY ROUTE**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO CAUSE EYE IRRITATION.

**SKIN ABSORPTION**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA IS KNOWN TO EXIST, THIS MATERIAL IS NOT EXPECTED TO BE A HEALTH HAZARD BY SKIN ABSORPTION.

**SKIN IRRITATION -- PRIMARY ROUTE**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A SKIN IRRITANT.

**OFC<sub>(R)</sub> CL-922 CLEANER**

S ID: 6-002148

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**7 - HEALTH HAZARDS (continued)**

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**INGESTION**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INGESTION HAZARD.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

THIS MATERIAL OR ITS EMISSIONS MAY AGGRAVATE KIDNEY, URETHRA, AND/OR BLADDER DISEASE.

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**8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES**

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**RESPIRATORY PROTECTION**

IF EXPOSURE CAN EXCEED THE PEL/TLV, USE ONLY NIOSH/MSHA APPROVED AIR-PURIFYING OR SUPPLIED AIR RESPIRATOR OPERATED IN A POSITIVE PRESSURE MODE PER THE NIOSH/OSHA 1981 OCCUPATIONAL HEALTH GUIDELINES FOR CHEMICAL HAZARDS.

**EYE PROTECTION**

EYE PROTECTION, INCLUDING BOTH CHEMICAL SPLASH GOGGLES AND FACE SHIELD, MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPRAYING LIQUID OR AIRBORNE PARTICLES. CONTACT LENSES MUST NOT BE WORN.

**SKIN PROTECTION**

WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.

**ENGINEERING CONTROLS**

NO SPECIAL VENTILATION IS USUALLY REQUIRED TO MEET EXPOSURE STANDARD(S) BEYOND THAT NEEDED FOR NORMAL COMFORT CONTROL.

**OTHER HYGENIC PRACTICES**

EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

**OTHER WORK PRACTICES**

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

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**9 - EMERGENCY AND FIRST AID**

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**INHALATION**

IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

**EYE CONTACT**

IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

**SKIN CONTACT**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH W/LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST. SEEK MEDICAL ATTENTION IF ILL EFFECT OR IRRITATION DEVELOPS.

**INGESTION**

IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION.

**EMERGENCY MEDICAL TREATMENT PROCEDURES**

IF EXPOSED, TREAT SKIN AND EYE BURNS OR IRRITANTS CONVENTIONALLY AFTER DECONTAMINATION.

IF SWALLOWED, DO NOT INDUCE VOMITING. GASTRIC LAVAGE IS RECOMMENDED. HEMODIALYSIS MAY BE INDICATED FOR MORE COMPLETE ELIMINATION.

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**10 - SPILL AND DISPOSAL**

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**PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED**

FLAMMABLE LIQUID. RELEASE CAN CAUSE FIRE/EXPLOSION/HUMAN HEALTH HAZARD; CONTAMINATE WATER SUPPLIES; BE TOXIC TO AQUATIC LIFE. EVACUATE/LIMIT ACCESS. EXTINGUISH ALL IGNITION SOURCES. BLANKET WITH FIREFIGHTING FOAM. IMPOUND/RECOVER LARGE LAND SPILL; SOAK UP SMALL SPILL. ON WATER, CONTAIN/

**OFC(R) CL-922 CLEANER**

MS ID: 6-002148

**10 - SPILL AND DISPOSAL (continued)**

MINIMIZE DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS.

**WASTE DISPOSAL METHODS**

CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO POTENTIAL FOR EYE IRRITATION/WATER POLLUTION (SEE 40 CFR 261 AND 29 CFR 1910). LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS IN SYSTEMS COMPATIBLE WITH WATER SOLUBLE WASTES. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

**11 - ADDITIONAL PRECAUTIONS****HANDLING AND STORAGE PROCEDURES**

STORE IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAME, STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. STORE DRUMS WITH BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE REMOVING CLOSURE. CONTAINERS MUST BE GROUNDED BEFORE BEGINNING TRANSFER. ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. HANDLE "EMPTY" CONTAINERS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE. VAPOR SPACE ABOVE LIQUID MAY BE FLAMMABLE/EXPLOSIVE UNLESS BLANKETED WITH INERT GAS.

**DECONTAMINATION PROCEDURES**

ISOLATE, VENT, DRAIN, WASH AND PURGE SYSTEMS OR EQUIPMENT BEFORE MAINTENANCE OR REPAIR. REMOVE ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR EXPLOSIVENESS AND OXYGEN DEFICIENCIES. USE ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. OBSERVE PRECAUTIONS PERTAINING TO CONFINED SPACE ENTRY.

**- LABEL INFORMATION****USE STATEMENT**

FOR INDUSTRIAL USE ONLY  
KEEP OUT OF REACH OF CHILDREN

**SIGNAL WORD**

WARNING

**PHYSICAL HAZARDS**

COMBUSTIBLE

**HEALTH HAZARDS**

SKIN, EYE, AND MUCOUS MEMBRANE IRRITANT  
INGESTION AND INHALATION HAZARD

**PRECAUTIONARY MEASURES**

DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.  
AVOID CONTACT WITH EYES, SKIN, AND CLOTHING.  
AVOID PROLONGED OR REPEATED BREATHING OF VAPOR.  
USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.  
PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS.  
WASH THOROUGHLY AFTER HANDLING.  
KEEP CONTAINER CLOSED.

**13 - SUPPLEMENT****CHRONIC HEALTH HAZARDS - SECTION 2 AND 7**

THIS PRODUCT CONTAINS A VERY LOW PROPORTION OF BUTYL CELLOSOLVE (AP 1.0%). WHEN TESTED IN PURE FORM AND AT HIGH DOSE LEVELS, THIS COMPONENT HAS PRODUCED LIVER, BLOOD, AND KIDNEY TOXICITY IN EXPERIMENT ANIMALS. IT HAS ALSO DAMAGED THE DEVELOPING FETUS IN ANIMAL STUDIES. AT THE PERCENT IT OCCURS IN THIS PRODUCT, IT IS NOT CONSIDERED TO PRESENT A SIGNIFICANT HEALTH HAZARD.

**NOTE -- QUALIFIERS AND CODES USED IN THIS MSDS**

EQ	= EQUAL	AP	= APPROXIMATELY
LT	= LESS THAN	GT	= GREATER THAN
TR	= TRACE	UK	= UNKNOWN

**OFC<sub>(R)</sub> CL-922 CLEANER**

MSDS ID: 6-002148

13 - SUPPLEMENT (continued)

N/AP = NOT APPLICABLE  
N/DA = NO DATA AVAILABLE

N/P = NO APPLICABLE INFORMATION FOUND

14 - DISCLAIMERS

SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

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

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

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

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



ARCO Chemical Company requests Customer to study this Data Sheet and become aware of Product hazards. To promote safe handling Customer should (1) notify its employees, agents and contractors of the information on this Data Sheet, and any Product hazards and safety information, (2) furnish a copy of this Data Sheet to each of its customers for the Product and (3) request such customers to notify their employees and customers for the Product of the information on this Data Sheet and any Product hazards and safety information.

<b>Section I - General</b>		Manufacturer's name ARCO CHEMICAL COMPANY		Material name ArcoSol P-571 (SS)	
Manufacturer's address 9100 W. 21st Street Sand Springs, OK 74063				Emergency telephone (24 hour) 215/353-8300	
Name (brand-trade) and synonyms N/A			Chemical family Industrial Solvent - Dispersant		
<b>Section II - Summary of hazardous information</b>		Summary CAUTION: MODERATELY COMBUSTIBLE - Keep away from heat, sparks, and open flame. WARNING: HIGH SKIN, EYE, AND INHALATION HAZARD - Avoid skin and eye contact and prolonged or repeated inhalation of vapors.			
TLV 100 ppm (Estimated)					
<b>Section III - Physical and reactivity data</b>		Boiling point (°F) 220°F	Evaporation rate (ratio of time) ( Ether = 1 ) >1	Other N/A	
Vapor pressure (mm Hg at 70°F) 2.0 (Calc.)		Incompatibility (materials to avoid) Strong oxidizing agent, strong alkalis			
Vapor density (air = 1 at 60-99°F) 3.8 (Calc.)		Stability Conditions to avoid (X) Stable ( ) Unstable Heat and open flame			
Specific gravity (H <sub>2</sub> O = 1 at 39.2°F) 0.945		Hazardous polymerization may occur ( ) Occur (X) Not occur			
Volatile characteristics Slight		Appearance and odor Dark amber and aromatic odor			
Solubility in water Moderate		Hazardous decomposition products Incomplete combustion may produce carbon monoxide and oxides and/or compounds of nitrogen and sulfur.			
<b>Section IV - Fire and explosion data</b>		Flash point (°F) 107°F (method used) (P-56)	Flammable limits at normal atmos. temp. and pressure (% by volume in air)	Lower flammable limit 1.1	Upper flammable limit 7.0
Autoignition temp. (°F) 867°F (Approx.)		Extinguishing media Carbon dioxide, dry chemical and alcohol type foam			
Special fire fighting procedures For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, such as self-contained breathing apparatus. See Section III, Hazardous Decomposition Products for unusual decomposition products.					
Unusual fire and explosion hazards MODERATELY COMBUSTIBLE - When heated above the flashpoint, it releases flammable vapors which when mixed with air (see Flammable Limits) can burn or be explosive. Fine mists or sprays of this material may be flammable at temperatures below the normal flashpoint.					
<b>Section V - First aid and emergency procedures</b>		Note to physician Do not induce vomiting.			
Eye contact		Flush eyes with plenty of low-pressure water. (At least 15 minutes) Obtain medical attention immediately. Prompt action is essential.			
Skin contact		Wash affected area with soap and water; remove contaminated clothing, including shoes, and clean thoroughly before reuse; seek medical attention immediately.			
Inhalation		Immediately remove from contaminated area for fresh air. Keep individual quiet. In the event of respiratory distress, give oxygen or artificial respiration.			
Ingestion		Do not induce vomiting. Aspiration into lungs may cause chemical pneumonia.			

**OFC(R) WC-449 WATER CLARIFIER**

MSDS ID: 4-005442

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**- PHYSICAL AND CHEMICAL DATA (continued)**

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APPEARANCE AND ODOR  
PALE AMBER LIQUID/ALCOHOL ODOR  
CONDITIONS AND MATERIALS TO AVOID  
HEAT AND OPEN FLAME  
STRONG OXIDIZING AGENTS, STRONG ALKALIES CORROSIVE TO MILD STEEL, ALUMINUM, BRAS  
HAZARDOUS DECOMPOSITION PRODUCTS  
BURNING TO DECOMPOSITION MAY PRODUCE CARBON MONOXIDE AND/OR OXIDES OF NITROGEN  
POSSIBLE HYDROCHLORIC ACID

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**5 - OCCUPATIONAL EXPOSURE LIMITS**

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SUBSTANCE	SOURCE	DATE	TYPE	VALUE	TIME
TRADE SECRET 5439-02	ACGIH	1987	TWA	1 MG/M3	8 HRS
			STEL	2 MG/M3	15 MIN
METHANOL	ACGIH	1987	TWA	200 PPM	8 HRS
			STEL	250 PPM	15 MIN
TRADE SECRET 5439-03	ACGIH	1987	TWA	10 PPM	8 HRS
			STEL	15 PPM	15 MIN
TRADE SECRET 5439-04	ACGIH	1987	TWA	3 PPM	8 HRS
			STEL	6 PPM	15 MIN

---

**6 - FIRE AND EXPLOSION**

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FLASH POINT METHOD=(D-56 )      AUTOIGNITION TEMP. METHOD=  
AP 92F      AP 878F  
FLAMMABLE LIMITS (% VOLUME IN AIR)  
AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE  
LOWER: 6.0      UPPER: 36.5  
FIRE AND EXPLOSION HAZARDS  
RELEASES VAPORS AT NORMAL AMBIENT TEMPERATURES. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED. FLAMMABLE VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG DISTANCES ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE. DILUTING WITH WATER MAY NOT SUFFICE TO RAISE FLASH POINT ABOVE AMBIENT TEMPERATURES.  
EXTINGUISHING MEDIA  
DRY CHEMICAL  
CO2  
WATER SPRAY  
FOAM  
SPECIAL FIREFIGHTING PROCEDURES  
DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPOSITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREASING RISK OF BURNS/INJURIES. USE WATER SPRAY/FOG FOR COOLING. AVOID FROTHING/STEAM EXPLOSION. BURNING LIQUID MAY FLOAT ON WATER. ALTHOUGH SOLUBLE, MAY NOT BE PRACTICAL TO EXTINGUISH FIRE BY WATER DILUTION. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/PUBLIC WATERS.

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**- HEALTH HAZARDS**

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ROUTES OF EXPOSURE

**OFC(R) WC-449 WATER CLARIFIER**

MSDS ID: 4-005442

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**- HEALTH HAZARDS (continued)**

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**INHALATION**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INHALATION HAZARD.

**EYE CONTACT**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO CAUSE EYE IRRITATION.

**SKIN ABSORPTION**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A HEALTH HAZARD BY SKIN ABSORPTION.

**SKIN IRRITATION**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A SKIN IRRITANT.

**INGESTION**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INGESTION HAZARD.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

THIS MATERIAL OR ITS EMISSIONS MAY AFFECT REPRODUCTIVE/GENETIC TISSUE.

---

**8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES**

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**RESPIRATORY PROTECTION**

WEAR NIOSH APPROVED ORGANIC AMINES MASK.

**EYE PROTECTION**

EYE PROTECTION SUCH AS CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID, AIRBORNE PARTICLES, OR VAPOR. CONTACT LENSES SHOULD NOT BE WORN.

**SKIN PROTECTION**

WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.

**ENGINEERING CONTROLS**

GENERAL ROOM OR LOCAL EXHAUST VENTILATION IS USUALLY REQUIRED TO MEET EXPOSURE STANDARD(S).

**OTHER HYGENIC PRACTICES**

EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

**OTHER WORK PRACTICES**

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

---

**9 - EMERGENCY AND FIRST AID**

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**INHALATION**

IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

**EYE CONTACT**

IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

**SKIN CONTACT**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH W/LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST. SEEK MEDICAL ATTENTION IF ILL EFFECT OR IRRITATION DEVELOPS.

**INGESTION**

IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION.

**EMERGENCY MEDICAL TREATMENT PROCEDURES**

METHANOL INGESTION IS LIFE-THREATENING. INDUCE VOMITING WITH SYRUP OF IPECAC. FOLLOW EMESIS WITH MODERATE AMOUNTS OF WATER ORALLY. SYMPTOM ONSET MAY BE DELAYED. ETHANOL THERAPY MAY BE INDICATED.

# OFC(R) WC-449 WATER CLARIFIER

ID: 4-005442

## 10 - SPILL AND DISPOSAL

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED  
FLAMMABLE LIQUID. EXTINGUISH ALL IGNITION SOURCES. BLANKET WITH FIRE-FIGHTING FOAM. IMPOUND/RECOVER LARGE LAND SPILL; SOAK UP SMALL SPILL. ON WATER, CONTAIN/MINIMIZE DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS.

### WASTE DISPOSAL METHODS

CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE (SEE 40 CFR 261 AND 29 CFR 1910). IF SPENT SOLVENT INTENDED FOR DISPOSAL, MAY BE DESIGNATED F005; IF SPILL CLEANUP RESIDUE, U154 UNDER RCRA LISTINGS. LAND-FILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS IN SYSTEMS DESIGNED FOR LOW FLASH POINT MATERIAL. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

## 11 - ADDITIONAL PRECAUTIONS

### HANDLING AND STORAGE PROCEDURES

MATERIAL IS FLAMMABLE! KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. STORE AWAY FROM HEAT, SPARKS, OPEN FLAMES AND STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. STORAGE IN CLOSED GLASS, STAINLESS STEEL, PLASTIC OR EPOXY LINED VESSELS IS RECOMMENDED. DO NOT USE ALUMINUM OR IRON IN FEED OR STORAGE SYSTEMS.

### DECONTAMINATION PROCEDURES

ISOLATE, VENT, DRAIN, WASH, AND PURGE EQUIPMENT BEFORE MAINTENANCE. REMOVE ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR EXPLOSIVENESS AND OXYGEN DEFICIENCIES. IF ANY RESIDUAL PRODUCT MAY BE PRESENT, TOTAL-ENCAPSULATING IMPERVIOUS PROTECTIVE SUITS, GLOVES, AND BOOTS SHOULD BE WORN. SEE PROTECTIVE EQUIPMENT SECTION 8 FOR PROPER RESPIRATORY PROTECTION.

## 12 - LABEL INFORMATION

### USE STATEMENT

FOR INDUSTRIAL USE ONLY  
KEEP OUT OF REACH OF CHILDREN

### SIGNAL WORD

WARNING

### PHYSICAL HAZARDS

HIGHLY FLAMMABLE

### HEALTH HAZARDS

INGESTION AND INHALATION HAZARD

SKIN AND EYE IRRITANT

### PRECAUTIONARY MEASURES

POISON (W/SKULL AND CROSSBONES SYMBOL)

DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.

DO NOT STORE NEAR COMBUSTIBLE MATERIALS.

AVOID CONTACT WITH EYES, SKIN, AND CLOTHING.

AVOID PROLONGED OR REPEATED BREATHING OF VAPOR.

USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.

PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS.

WASH THOROUGHLY AFTER HANDLING.

DO NOT TASTE/SWALLOW.

KEEP CONTAINER CLOSED.

## 13 - SUPPLEMENT

### SUPPLEMENT: SECTIONS 2 AND 7 HEALTH HAZARDS

THIS MATERIAL CONTAINS METHANOL, WHICH, WHEN INGESTED, HAS CAUSED ACIDOSIS, OCULAR TOXICITY RANGING FROM DIMINISHED VISUAL CAPACITY TO COMPLETE BLINDNESS, AND DEATH.

**OFC<sub>(R)</sub> WC-449 WATER CLARIFIER**

MSDS ID: 4-005442

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- SUPPLEMENT (continued)

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## NOTE -- QUALIFIERS AND CODES USED IN THIS MSDS

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LT = LESS THAN	GT = GREATER THAN
TR = TRACE	UK = UNKNOWN
N/AP = NOT APPLICABLE	N/P = NO APPLICABLE INFORMATION FOUND
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14 - DISCLAIMERS

---

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Page: 1

## MATERIAL SAFETY DATA SHEET

Printed : 04/03/91

Revised : 03/21/91

## SECTION I - PRODUCT IDENTIFICATION

Manufacturer: JETCO CHEMICALS, INC.  
P. O. BOX 1898

Information Phone: 903-872-3011  
Emergency Phone: 903-874-9500  
CHEMTREC Phone: 800-424-9300

CORSICANA

TX 75151

Product Class: Encapsulated Scale/Corr. Inhib

Trade Name : JET CAP SC501

Product Code : CAPSC501.2

C.A.S. Number: Mixture

Shipping Name: CORROSIVE LIQUID, N.O.S. (CONTAINS HYDROCHLORIC ACID) UN1760

Hazard Ratings: Health - 2  
none -> extreme Fire - 0  
1 0 ---> 4 Reactivity - 1

Personal Protection - B

## SECTION II - HAZARDOUS INGREDIENTS

Ingredients	CAS #	Weight %	Exposure Limits		VP
			ACGIH/TLV	OSHA/PEL	
HYDROCHLORIC ACID	7647-01-0	1-5 STEL= C 7	C 5 ppm	C5 C7	ppm N/AV

HCL is a SARA 313 listed chemical

\*\*\* ALL Ingredients in this product are listed in the T.S.C.A. Inventory.

\* -&gt; These items are listed on the SARA TITLE III Section 313 inventory

## SECTION III - PHYSICAL DATA

Boiling Range: 212 Deg. F

Evap. Rate: Slower than n-Butyl Acetate

Volatiles volume: 0.9 %

Vapor Density: Heavier than Air.

Liquid Density: Heavier than Water.

Wgt per gallon: 9.163 Pounds.

Spec. Gravity: 1.10

Appearance: Capsules in Brine

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class:

Flash Point: &gt; 200 F

LEL:

-EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, water spray, foam, or water fog.

-SPECIAL FIREFIGHTING PROCEDURES:

Appropriate breathing apparatus should be worn when fighting fires. Decomposition products possible. Water may be ineffective in fighting fires due to low flash point. Heat may build pressure/rupture closed container, spreading fire. Use water spray/fog for cooling.

-UNUSUAL FIRE &amp; EXPLOSION HAZARDS:

May release flammable vapors at elevated temperatures which can burn in open or explode if confined. When heated, corrosive vapors may be generated. May travel long distances along the ground before igniting/flashing back to vapor source. Water dilution may not suffice to raise the flash point.

## =====

## SECTION VII - SPILL OR LEAK PROCEDURES (cont.)

-----  
-WASTE DISPOSAL METHOD:

Contaminated soil/water/product may be RCRA/OSHA hazardous waste due to potentially low flash point. Landfill at permitted sites. Use registered transporters. Incinerate concentrated liquids in systems compatible with liquid wastes where permitted under federal, state and local regulations. Consult waste disposal authorities.

## -SPILL REPORTABLE QUANTITY:

## =====

## SECTION VIII - SPECIAL PROTECTION INFORMATION

-----  
-RESPIRATORY PROTECTION:

If exposure may exceed established standards, use of NIOSH/MSHA approved respiratory equipment operated in compliance with the OSHA Standard for Respiratory Protection (29 CFR 1910.134) is required.

## -VENTILATION:

Local exhaust ventilation may be required to meet exposure standards in addition to good room ventilation.

## -PROTECTIVE GLOVES:

Impervious protective suit with gloves, boots, and full head gear protection must be worn. Equipment should be cleaned thoroughly after each use.

## -EYE PROTECTION:

Eye protection, including both chemical splash goggles and face shield, must be worn when splashing, spraying, or other eye contact is possible.

## -OTHER PROTECTIVE EQUIPMENT:

Emergency eyewash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing; washing thoroughly before reuse. Shower after work using plenty of soap and water.

## =====

## SECTION IX - SPECIAL PRECAUTIONS

-----  
-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Store in tightly sealed drums or in properly ventilated tanks away from heat, sparks, open flames, and strong oxidants. Use only non-sparking tools. Store drums with bung in up position. Carefully vent internal pressure before beginning transfer. Electrical equipment should conform to national electric code. Handle empty containers with care; vapor residue may be flammable. Vapor space above liquid may be flammable/explosive unless blanketed with inert gas.

(22)

## MATERIAL SAFETY DATA SHEET

NUMBER: 852  
 NUMBER: INC 852  
 PRODUCT NAME: INC 852 Emulsion Breaker  
 CAS NUMBER: - 0  
 CHEMICAL NAME: Mixture of Surfactants

## SECTION I

MANUFACTURER: / VENDOR: InterChem, Inc.

ADDRESS: 3803 Mankins  
 Odessa, TX 79763

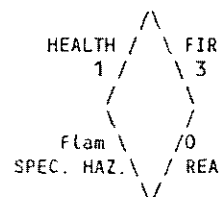
EMERGENCY TELEPHONE NUMBER: (915)550-7027

INFORMATION TELEPHONE NUMBER: (915)550-7027

DATE PREPARED: 08/01/94

## HMIS RATINGS:

HEALTH: 1  
 FIRE: 3  
 REACTIVITY: 0  
 PERSONAL PROTECTION:



## SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CAS NUMBER	HAZARDOUS COMPONENT	NTP	IARC	SUB- PART/2	SARA 313	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED PERCENT
67-63-0	Isopropanol	?	?	?	?	100ppm/day	NI	Propriet
91-20-3	Naphthalene	?	?	?	Y	10 ppm.	15 ppm ST	0.2 % Vol

## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	181 F.	SPECIFIC GRAVITY (H2O = 1)	0.96000
VAPOR PRESSURE (mm Hg.)	4.4	MELTING POINT	NI
REL DENSITY (AIR = 1)	NI	EVAPORATION RATE (Butyl Acetate = 1)	NI

SOLUBILITY IN WATER: Dispersible at 60 F.

APPEARANCE AND ODOR: Dark amber liquid, Alcohol odor

## OTHER INFORMATION:

Viscosity Units = N /A pH = App. 8.0  
 Freezing Point = N /A Dry Point = N/A

Density (Lb./Gal.) = 7.998

## DANGER

Physical Hazards:-  
 Flammable Liquid

Generic Name:- Emulsion Breaker (Mixture of Phenolic Derivatives)

UN/NA Number:- UN 1993

DOT Response Number:- 27

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

DOT Hazard Class:- 3

DOT Packing Group:- III

DOT/CERCLA RQ:- 100 Lbs. (Naphthalene)

This product contains 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 (the corresponding CAS numbers and percent by weight are also provided).

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 80 F.	FLAMMABLE LIMITS: LEL: 2 %	UEL: 13 %
EXTINGUISHING MEDIA: Dry Chemical CO2		



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SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

---

ter fog

SPECIAL FIRE FIGHTING PROCEDURES:

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

Fight fire from safe distance / protected location.

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

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

UNUSUAL FIRE FIGHTING PROCEDURES: NONE

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SECTION V - REACTIVITY DATA

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STABILITY:

Product is stable under normal conditions.

INCOMPATIBILITY (MATERIALS TO AVOID):

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

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

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

HAZARDOUS POLYMERIZATION:

Not expected to occur.

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SECTION VI - HEALTH HAZARD DATA

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ROUTE(S) OF ENTRY:

Inhalation:-

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

Eye contact:- Primary Route

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

Skin absorption:-

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

Skin irritation:-

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

Ingestion:-

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

HEALTH HAZARDS (ACUTE AND CHRONIC):

Acute Health Effects:- (Short Term)

Irritant to Eyes.

Irritant to Skin.

Severe Ingestion Hazard.

Inhalation Hazard

SIGNS AND SYMPTOMS OF EXPOSURE:

Skin Contact:-

Irritation or redness of the skin may develop after exposure. This liquid can defat the skin, producing a dermatitis characterized by drying and defatting.

Eye Contact:-

Severe eye irritation may develop on exposure.

Ingestion:-

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

Inhalation:-

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

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NI

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SECTION VI - HEALTH HAZARD DATA (Continued)

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AGENCY AND FIRST AID PROCEDURES:

Inhalation:-

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

Eye Contact:-

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

Skin Contact:-

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

Ingestion:-

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

Emergency Medical Treatment Procedures:-

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

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

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OTHER HEALTH WARNINGS:

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

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SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

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

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

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

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

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WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal.

---

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

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

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

---

OTHER PRECAUTIONS:

Wash Thoroughly after handling.

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

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

Keep Container closed when not in use.

Empty container may contain hazardous residues.

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SECTION VIII - CONTROL MEASURES

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VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

---

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:- If workplace exposure limit(s) of product or any component is exceeded, a NIOSH/MSHA approved air supply respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering or administrative controls should be implemented to reduce exposure.

Ventilation:- Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Protective Gloves:- Wear resistant gloves such as: Nitrile Rubber.

Eye Protection:- Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other types of safety glasses. (Consult your safety equipment supplier).

Other Protective Equipment:- To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Printed 11-19-1990

## MATERIAL SAFETY DATA SHEET

Page 1

OFC(R) C-107 (SS) CORROSION INHIBITOR  
ID: 6-005046

## 1 - GENERAL INFORMATION

CHEMLINK PETROLEUM  
9101 W 21ST STREET  
SAND SPRINGS, OK 74063  
800/424-9300 ChemTrec  
800/444-8969 Emergency  
918/245-2224 Information

GENERIC NAME

DATE REVISED: 04-30-90

DOT PROPER SHIPPING NAME  
FLAMMABLE LIQUID, N.O.S.  
(ISOPROPANOL, XYLENE)  
DOT HAZARD CLASS  
FLAMMABLE LIQUID

UN/NA NUMBER  
UN 1993

## 2 - SUMMARY OF HAZARDS

DANGER  
PHYSICAL HAZARDS:

EXTREMELY FLAMMABLE LIQUID

ACUTE HEALTH EFFECTS:  
(SHORT TERM)

NO DATA FOUND; SUSPECT INHALATION HAZARD  
NO DATA FOUND; SUSPECT EYE CONTACT HAZARD  
NO DATA FOUND; SUSPECT SKIN IRRITATION HAZARD  
NO DATA FOUND; SUSPECT ASPIRATION HAZARD  
NO DATA ON SKIN ABSORPTION FOUND

CHRONIC HEALTH EFFECTS:  
(LONG TERM)

NO INFORMATION IS AVAILABLE ON CHRONIC HEALTH HAZARDS. HOWEVER, REPEATED SKIN CONTACT SHOULD BE AVOIDED AS THIS PRODUCT MAY CONTAIN POLYNUCLEAR AROMATIC HYDROCARBONS WHICH HAVE BEEN REPORTED TO INDUCE TUMORS IN LAB ANIMALS. SEE SUPPLEMENT.

## 3 - COMPONENTS

COMPONENT NAME	CAS NUMBER	% COMPOSITION BY (WT.)
HEAVY AROMATIC SOLVENT CARCINOGEN AS LISTED BY IARC TRADE SECRET 5046-01# TRADE SECRET 5046-02#	64742-94-5	
*N-BUTYL ALCOHOL TRADE SECRET 5046-03#	71-36-3	< 5
WATER	7732-18-5	
ISOPROPYL ALCOHOL	67-63-0	
*XYLENE	1330-20-7	< 3

\* THIS IS A SARA SECTION 313 LISTED CHEMICAL  
US TSCA INVENTORY: ALL COMPONENTS ARE INCLUDED ON THE US TSCA INVENTORY

## 4 - PHYSICAL AND CHEMICAL DATA

BOILING POINT  
AP 300F  
FREEZING POINT  
N/DA  
SPECIFIC GRAVITY (H2O=1 AT 39.2F)  
AP .95

PH  
N/AP  
DRY POINT  
N/DA  
VOLATILE CHARACTERISTICS  
MODERATE



OFC(R) C-107 (SS) CORROSION INHIBITOR  
ID: 6-005046

## 4 - PHYSICAL AND CHEMICAL DATA (continued)

VISCOSITY UNITS, TEMP.  
N/DA  
VAPOR PRESSURE  
AP 13.0 MM HG AT 70F  
VAPOR SP GR (AIR=1 AT 60 - 90F)  
AP 1.9  
APPEARANCE AND ODOR  
DARK BROWN LIQUID; SLIGHT ALCOHOL ODOR  
CONDITIONS AND MATERIALS TO AVOID  
HEAT, SPARKS, OPEN FLAME  
STRONG OXIDIZING AGENTS  
HAZARDOUS DECOMPOSITION PRODUCTS  
WHEN HEATED TO DECOMPOSITION, MAY GENERATE CARBON MONOXIDE AS WELL AS OXIDES  
AND/OR COMPOUNDS OF NITROGEN.

SOLUBILITY IN WATER  
MODERATE  
STABILITY  
STABLE  
HAZARDOUS POLYMERIZATION  
NOT EXPECTED TO OCCUR

## 5 - OCCUPATIONAL EXPOSURE LIMITS

SUBSTANCE	SOURCE	DATE	TYPE	VALUE	TIME
XYLENE	OSHA	1971	PEL	100 PPM	8 HRS
	ACGIH	1985	TLV	100 PPM	8 HRS
			STEL	150 PPM	15 MIN
ISOPROPANOL	OSHA	1971	PEL	400 PPM	8 HRS
	ACGIH	1985	TLV	400 PPM	8 HRS
			STEL	500 PPM	15 MIN
BUTYL ALCOHOL	OSHA	1971	PEL	100 PPM	8 HRS
BUTYL ALCOHOL - SKIN	ACGIH	1985	CEILING	50 PPM	

## 6 - FIRE AND EXPLOSION

FLASH POINT METHOD=(TCC )  
AP 61F  
AUTOIGNITION TEMP. METHOD=  
AP 750F  
FLAMMABLE LIMITS (% VOLUME IN AIR)  
AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE  
LOWER: AP 2.0 UPPER: AP 12.0  
FIRE AND EXPLOSION HAZARDS  
RELEASES VAPORS AT NORMAL AMBIENT TEMPERATURES. WHEN MIXED WITH AIR AND  
EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED.  
FLAMMABLE VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG DISTANCES ALONG  
GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE.  
EXTINGUISHING MEDIA  
DRY CHEMICAL  
CO2  
WATER SPRAY  
ALCOHOL  
WATER FOG  
SPECIAL FIREFIGHTING PROCEDURES  
DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPO-  
SITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION.  
HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREAS-  
ING RISK OF BURNS/INJURIES. DO NOT USE SOLID WATER STREAM/MAY SPREAD FIRE.  
USE WATER SPRAY/FOG FOR COOLING. AVOID FROTHING/STEAM EXPLOSION. BURNING  
LIQUID WILL FLOAT ON WATER. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/  
PUBLIC WATERS.

OFC(R) C-107 (SS) CORROSION INHIBITOR  
ID: 6-005046

## 7 - HEALTH HAZARDS

## ROUTES OF EXPOSURE

## INHALATION -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INHALATION HAZARD.

## EYE CONTACT -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO CAUSE SEVERE EYE IRRITATION.

## SKIN ABSORPTION

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA IS KNOWN TO EXIST, THIS MATERIAL IS NOT EXPECTED TO BE A HEALTH HAZARD BY SKIN ABSORPTION.

## SKIN IRRITATION -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A SEVERE SKIN IRRITANT.

## INGESTION

NO DATA AVAILABLE. INGESTION OF THIS MATERIAL MAY RESULT IN ASPIRATION INTO THE LUNGS CAUSING CHEMICAL PNEUMONIA.

## MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

THIS MATERIAL OR ITS EMISSIONS MAY CAUSE DAMAGE TO KIDNEY AND LIVER AND/OR AGGRAVATE EXISTING DISORDERS.

## 8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES

## RESPIRATORY PROTECTION

IF EXPOSURE CAN EXCEED THE PEL/TLV, USE ONLY NIOSH/MSHA APPROVED AIR-PURIFYING OR SUPPLIED AIR RESPIRATOR OPERATED IN A POSITIVE PRESSURE MODE PER THE NIOSH/OSHA 1981 OCCUPATIONAL HEALTH GUIDELINES FOR CHEMICAL HAZARDS.

## EYE PROTECTION

EYE PROTECTION, INCLUDING BOTH CHEMICAL SPLASH GOGGLES AND FACE SHIELD, MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPRAYING LIQUID OR AIRBORNE PARTICLES. CONTACT LENSES MUST NOT BE WORN.

## SKIN PROTECTION

IMPERVIOUS PROTECTIVE SUIT WITH GLOVES, BOOTS, AND FULL HEAD AND FACE PROTECTION MUST BE WORN. THE EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.

## ENGINEERING CONTROLS

PROVIDE LOCAL EXHAUST OR GENERAL ROOM VENTILATION TO MINIMIZE EXPOSURE TO VAPORS. ELECTRICAL SYSTEMS SHOULD CONFORM TO NATIONAL ELECTRIC CODE.

## OTHER HYGIENIC PRACTICES

EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

## OTHER WORK PRACTICES

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

## 9 - EMERGENCY AND FIRST AID

## INHALATION

IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

## EYE CONTACT

IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

## SKIN CONTACT

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH WITH LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATER-LESS CLEANER FIRST. OBTAIN EMERGENCY MEDICAL ATTENTION.

## INGESTION

IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.



CEC(R) C-107 (SS) CORROSION INHIBITOR  
9: 6-005046

- EMERGENCY AND FIRST AID (continued)

EMERGENCY MEDICAL TREATMENT PROCEDURES

VIGOROUS ANTI-INFLAMMATORY/STEROID TREATMENT MAY BE REQUIRED AT FIRST EVIDENCE OF PULMONARY/UPPER AIRWAY EDEMA. IF SWALLOWED, DO NOT INDUCE VOMITING. GASTRIC LAVAGE IS RECOMMENDED. HEMODIALYSIS MAY BE INDICATED FOR MORE COMPLETE ELIMINATION.

10 - SPILL AND DISPOSAL

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED

FLAMMABLE LIQUID. EXTINGUISH ALL IGNITION SOURCES. BLANKET WITH FIRE-FIGHTING FOAM. IMPOUND/RECOVER LARGE LAND SPILL; SOAK UP SMALL SPILL. ON WATER, CONTAIN/MINIMIZE DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS.

WASTE DISPOSAL METHODS

CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO POTENTIALLY LOW FLASH POINT (SEE 40 CFR 261 AND 29 CFR 1910). LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

11 - ADDITIONAL PRECAUTIONS

HANDLING AND STORAGE PROCEDURES

STORE IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAME, STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. STORE DRUMS WITH BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE REMOVING CLOSURE. CONTAINERS MUST BE GROUNDED BEFORE BEGINNING TRANSFER. ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. HANDLE "EMPTY" CONTAINERS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE. VAPOR SPACE ABOVE LIQUID MAY BE FLAMMABLE/EXPLOSIVE UNLESS BLANKETED WITH INERT GAS.

DECONTAMINATION PROCEDURES

ISOLATE, VENT, DRAIN, WASH, AND PURGE EQUIPMENT BEFORE MAINTENANCE. REMOVE ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR EXPLOSIVENESS AND OXYGEN DEFICIENCIES. IF ANY RESIDUAL PRODUCT MAY BE PRESENT, TOTAL-ENCAPSULATING IMPERVIOUS PROTECTIVE SUITS, GLOVES, AND BOOTS SHOULD BE WORN. SEE PROTECTIVE EQUIPMENT SECTION 8 FOR PROPER RESPIRATORY PROTECTION.

12 - LABEL INFORMATION

USE STATEMENT

FOR INDUSTRIAL USE ONLY  
KEEP OUT OF REACH OF CHILDREN

SIGNAL WORD

DANGER

PHYSICAL HAZARDS

EXTREMELY FLAMMABLE

HEALTH HAZARDS

SEVERE SKIN AND EYE IRRITANT

HIGH INGESTION HAZARD-CHEMICAL PNEUMONIA

INHALATION HAZARD

SIMILAR MATERIAL INDUCES TUMORS IN LAB ANIMALS

PRECAUTIONARY MEASURES

DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.

STORE IN TIGHTLY CLOSED CONTAINERS.

AVOID CONTACT WITH EYES, SKIN, AND CLOTHING.

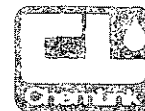
DO NOT BREATHE VAPOR.

USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.

PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS.

DO NOT TAKE INTERNALLY.

WASH THOROUGHLY AFTER HANDLING.



EC(R) C-107 (SS) CORROSION INHIBITOR  
1: 6-005046

## 5 - SUPPLEMENT

## ACUTE AND CHRONIC HEALTH EFFECTS

REGARDING POTENTIAL CHRONIC HEALTH HAZARDS WHICH MAY RESULT FROM LONG-TERM, REPEATED CONTACT, THIS MATERIAL MAY CONTAIN POLYNUCLEAR AROMATIC HYDROCARBONS (PNA'S). STUDIES HAVE SHOWN THAT THE REPEATED PAINTING OF PNA'S ON THE SKIN OF EXPERIMENTAL ANIMALS OVER A SUSTAINED PERIOD OF TIME RESULTS IN THE INDUCTION OF TUMORS. INDIVIDUALS SHOULD AVOID SKIN CONTACT AND SHOULD WASH AFFECTED AREAS IMMEDIATELY IF CONTACT OCCURS.

PROLONGED, REPEATED EXPOSURES TO HIGH LEVELS OF XYLENE CAN INDUCE CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DEPRESSION, DIZZINESS, NUMBNESS, TREMORS, IMPAIRED MEMORY, HEADACHE, NAUSEA AND LACK OF APPETITE. MODERATE LIVER ENLARGEMENT, KIDNEY INVOLVEMENT AND EVEN DEATH IS POSSIBLE IF EXPOSURE IS NOT CONTROLLED.

ISOPROPANOL HAS BEEN REPORTED IN ONE STUDY TO BE FETOTOXIC AT LEVELS OF 2.5% IN DRINKING WATER. NO TERATOGENIC EFFECTS WERE OR HAVE BEEN REPORTED. THERE ARE NO REPORTS OF ADVERSE REPRODUCTIVE EFFECTS IN HUMANS EXPOSED TO THIS CHEMICAL.

## NOTE -- QUALIFIERS AND CODES USED IN THIS MSDS

EQ = EQUAL	AP = APPROXIMATELY
LT = LESS THAN	GT = GREATER THAN
TR = TRACE	UK = UNKNOWN
N/AP = NOT APPLICABLE	N/P = NO APPLICABLE INFORMATION FOUND
N/OA = NO DATA AVAILABLE	

## 14 - DISCLAIMERS

SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

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

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

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

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



**Section VI - Health Hazard Data**

## Primary Hazard

Material may cause eye irritation upon direct contact.

Route of Exposure	Affected	Signs and Symptoms
Eye Contact	x	Material may cause eye irritation upon direct contact.
Skin Irritation	x	This material may cause skin irritation upon direct contact.
Inhalation	x	Prolonged exposure to excess vapor concentrations of this material may cause signs and symptoms of central nervous system depression such as headache, dizziness, loss of appetite, weakness, and loss of coordination.
Ingestion	x	Ingestion may cause toxic effects.
Skin Absorption		

## Effects of Overexposure

Ingestion or inhalation of large quantities of vapor may cause headache, fatigue nausea, visual impairment or complete blindness, and respiratory failure.

**Section VII - Spill or Leak Procedures**

## Precautions if Material Is Spilled or Released

Eliminate all sources of ignition in vicinity of the spill or release vapor.

## Waste Disposal Methods

Soak up spill with sand or earth and shovel into container. Dispose of in approved dump site or incinerator. The contaminated area should be flushed with water being certain not to contaminate storm drain or water supplies.

**Section VIII - Special Precaution Information**

## Ventilation

Normally not required.

## Eye Protection

Eye protection, such as chemical type goggles or face mask, should be worn whenever splashing, spraying, or other eye contact is likely.

## Skin Protection

Avoid prolonged or repeated skin contact, and use good personal hygiene.

## Respiratory Protection

When exposure above the established standard is likely, a respiratory protection program which complies with OSHA General Industry Standard 1910.134 (e) and respiratory equipment approved by NIOSH/MESA should be implemented.

## Other Protection

N/A

**Section IX - Special Precautions**

## Handling and Storage

Keep container closed when not in use. Store away from heat, open flame, or direct sunlight. Keep out of reach of children. Containers should be decontaminated and all residual contents removed before disposal. SLIGHTLY COMBUSTIBLE.

## General Comments

All electrical equipment in areas where material is stored and/or handled should be installed in accordance with applicable requirements of the National Electric Code, N.F.P.A.

## Date Issued

October, 1978

**Disclaimer of Liability**

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of the material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without any warranty, express or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.



# Atlantic Richfield Company

## Material Safety Data Sheet

TEMPORARY

MSDS 2225

24

Material Name
ArcoHib S-225
Specification Code
N/A
Emergency Telephone (24 hour)
918/588-8418

<b>Section I - General</b>	Manufacturer's Name	ARCO/Chemical Company
	Div. of Atlantic Richfield Co.	
Manufacturer's Address	9100 West 21st Street	
	Sand Springs, Oklahoma 74063	
Name (Brand-Trade) and Synonyms	N/A	Chemical Family
		Scale Inhibitor

<b>Section II - Summary of Hazardous Information</b>	Summary
TLV 100 ppm (estimated)	CAUTION: MODERATE SKIN, EYE AND INHALATION HAZARD - Avoid prolonged or repeated skin contact. Avoid breathing vapors. Avoid eye contact.

<b>Section III - Physical and Chemical Data</b>	Boiling Point (°F)	Evaporation Rate (ratio of time)	Other
	>212° F.	( Ether = 1 ) >1	pH = 8.5 - 9.5
Vapor Pressure 14.2 (mm Hg at 70° F) (calc)	Incompatibility (materials to avoid)		
	Strong acids, alkalis and strong oxidizing agents.		
Vapor Density 0.79 (air = 1 at 60-99° F) (calc)	Stability	Conditions to Avoid	
	( x ) Stable ( ) Unstable		
Specific Gravity 1.080 (air = 1 at 39.2° F)	Hazardous Polymerization May	Appearance and Odor	
	( ) Occur ( x ) Not Occur	Light amber liquid; no distinct odor.	
Volatile Characteristics	Hazardous Decomposition Products		
Moderate	Incomplete combustion may result in oxides of phosphorous, sulfur, nitrogen and possibly aqua ammonia.		
Solubility in Water			
Complete			

<b>Section IV - Fire and Explosion Data</b>	Flash Point (°F)	Flammable Limits at Normal Atmos. Temp. and Pressure (% by volume in air)	Lower Flammable Limit	Upper Flammable Limit
	>200 (method used) ( D56 )			
Autoignition Temp. (°F)	Extinguishing Media			
N/A*	Water Spray			

**Special Fire Fighting Procedures** For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, such as self-contained breathing apparatus. See Section III, Hazardous Decomposition Products for unusual decomposition products.

**Unusual Fire and Explosion Hazards** MODERATELY COMBUSTIBLE. When heated above the flashpoint, it releases flammable vapors which when mixed with air (see Flammable Limits) can burn or be explosive. Fine mists or sprays of this material may be flammable at temperatures below the normal flashpoint.  
\*Solvent system is primarily water.

<b>Section V - First Aid and Emergency Procedures</b>	Note to Physician
	If swallowed, induce vomiting.

**Eye Contact** Flush eyes with plenty of low pressure water.

**Skin Contact** Immediately wash skin with soap and plenty of water. Remove contaminated clothing and thoroughly clean before reuse.

**Inhalation** Immediately remove from contaminated area for fresh air.

**Ingestion** Induce vomiting by sticking finger down throat. Immediately obtain medical attention.

OF (P) SC-303 SCALE/CORROSION INHIBITOR

MSDS ID: 6-005501

## 1 - GENERAL INFORMATION

CHEMLINK PETROLEUM  
9100 W. 21ST STREET  
SAND SPRINGS, OK 74063

800/424-9300 ChemTrec  
800/232-1616 Emergency  
800/722-5660 In Oklahoma  
918/493-4347 Out Cont. US

GENERIC NAME

DATE REVISED: 10/19/87

DOT PROPER SHIPPING NAME  
FLAMMABLE LIQUID, N.O.S.  
DOT HAZARD CLASS  
FLAMMABLE LIQUID

UN/NA NUMBER  
UN 1993

NFPA CLASSIFICATION: HEALTH:(2) FLAMMABILITY:(4) REACTIVITY:(1)  
SPECIFIC HAZARD:(N/AP)  
DOT/CERCLA RQ: N/AP

## 2 - SUMMARY OF HAZARDS

## DANGER

PHYSICAL HAZARDS: EXTREMELY FLAMMABLE LIQUID

ACUTE HEALTH EFFECTS: NO DATA FOUND; SUSPECT INHALATION HAZARD  
(SHORT-TERM) NO DATA FOUND; SUSPECT EYE CONTACT HAZARD  
NO DATA FOUND; SUSPECT SKIN IRRITATION HAZARD  
NO DATA FOUND; SUSPECT ASPIRATION HAZARD  
NO DATA ON SKIN ABSORPTION FOUND

CHRONIC HEALTH EFFECTS: NO INFORMATION IS AVAILABLE ON CHRONIC HEALTH  
(LONG-TERM) HAZARDS. HOWEVER, REPEATED SKIN CONTACT SHOULD  
BE AVOIDED AS THIS MATERIAL MAY CONTAIN POLY-  
NUCLEAR AROMATIC HYDROCARBONS (PNA'S) WHICH HAVE  
BEEN REPORTED TO INDUCE TUMORS IN LAB ANIMALS.  
SEE SUPPLEMENT.

## 3 - COMPONENTS

COMPONENT NAME	CAS NUMBER	% COMPOSITION BY (WT.)
TRADE SECRET 5501-01#		
TRADE SECRET 5501-02#		
ISOPROPYL ALCOHOL	67-63-0	
*ETHYLENE GLYCOL	107-21-1	< 5
*METHANOL	67-56-1	< 5
HEAVY AROMATIC SOLVENT	64742-94-5	
CARCINOGEN AS LISTED BY IARC		
WATER	7732-18-5	

\* THIS IS A SARA SECTION 313 LISTED CHEMICAL

## 4 - PHYSICAL AND CHEMICAL DATA

BOILING POINT	PH
N/DA	AP 6.5 TO 7.5
FREEZING POINT	DRY POINT
N/DA	N/DA

OFC(r) SC-303 SCALE/CORROSION INHIBITOR

MSDS ID: 6-005501

## 4 - PHYSICAL AND CHEMICAL DATA (continued)

SPECIFIC GRAVITY (H2O=1 AT 39.2F)  
AP .943 AT 60F  
VISCOSITY UNITS, TEMP. (BROOK)  
LT 100 77F  
VAPOR PRESSURE  
AP 27.4 MM HG AT 70F  
VAPOR SP GR (AIR=1 AT 60 - 90F)  
AP 1.3  
APPEARANCE AND ODOR  
DARK AMBER LIQUID, ALCOHOL ODOR  
CONDITIONS AND MATERIALS TO AVOID  
HEAT, SPARKS, OPEN FLAME  
STRONG OXIDIZERS  
HAZARDOUS DECOMPOSITION PRODUCTS  
INCOMPLETE COMBUSTION COULD PRODUCE CARBON MONOXIDE, CARBON DIOXIDE, AND  
OXIDES OR COMPOUNDS OF SULFUR AND NITROGEN

VOLATILE CHARACTERISTICS  
APPRECIABLE  
SOLUBILITY IN WATER  
APPRECIABLE  
STABILITY  
STABLE  
HAZARDOUS POLYMERIZATION  
NOT EXPECTED TO OCCUR

## 5 - OCCUPATIONAL EXPOSURE LIMITS

SUBSTANCE	SOURCE	DATE	TYPE	VALUE	TIME
ISOPROPANOL					
	OSHA	1971	PEL	400 PPM	8 HRS
	ACGIH	1987	TWA	400 PPM	8 HRS
			STEL	500 PPM	15 MIN
ETHYLENE GLYCOL (VAPOR)					
	ACGIH	1987	CEILING	50 PPM	
METHANOL					
	OSHA	1971	PEL	200 PPM	8 HRS
	ACGIH	1987	TWA	200 PPM	8 HRS
			STEL	250 PPM	15 MIN

## 6 - FIRE AND EXPLOSION

FLASH POINT METHOD=(TCC )  
AP 53F  
FLAMMABLE LIMITS (% VOLUME IN AIR)  
LOWER: N/DA  
FIRE AND EXPLOSION HAZARDS  
RELEASES FLAMMABLE VAPORS BELOW NORMAL AMBIENT TEMPERATURES. WHEN MIXED  
WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE  
IF CONFINED. VAPORS MAY BE HEAVIER THAN AIR, MAY TRAVEL LONG DISTANCES  
ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE. DILUTING WITH  
WATER MAY NOT SUFFICE TO RAISE FLASH POINT ABOVE AMBIENT TEMPERATURES.  
EXTINGUISHING MEDIA  
DRY CHEMICAL  
CO2  
FOAM  
USE WATER SPRAY/WATER FOG FOR COOLING  
SPECIAL FIREFIGHTING PROCEDURES  
DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPO-  
SITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION.  
HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREAS-  
ING RISK OF BURNS/INJURIES. WATER MAY BE INEFFECTIVE IN FIREFIGHTING DUE TO  
LOW FLASH POINT. USE WATER SPRAY/FOG FOR COOLING. EVEN IF MATERIAL IS WATER  
SOLUBLE, MAY NOT BE PRACTICAL TO EXTINGUISH FIRE BY WATER DILUTION. NOTIFY  
AUTHORITIES IF LIQUID ENTERS SEWER/PUBLIC WATERS.

AUTOIGNITION TEMP. METHOD=  
N/DA  
UPPER: N/DA

OFC(R) SC-303 SCALE/CORROSION INHIBITOR  
MSDS ID: 6-005501

## 7 - HEALTH HAZARDS

### ROUTES OF EXPOSURE

#### INHALATION -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INHALATION HAZARD.

#### EYE CONTACT -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO CAUSE SEVERE EYE IRRITATION.

#### SKIN ABSORPTION

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST.

#### SKIN IRRITATION -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A SEVERE SKIN IRRITANT.

#### INGESTION

NO DATA AVAILABLE. INGESTION OF THIS MATERIAL MAY RESULT IN ASPIRATION INTO THE LUNGS CAUSING CHEMICAL PNEUMONIA.

#### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

THIS MATERIAL OR ITS EMISSIONS MAY CAUSE DAMAGE TO KIDNEY AND LIVER AND/OR AGGRAVATE EXISTING DISORDERS.

## 8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES

### RESPIRATORY PROTECTION

IF EXPOSURE CAN EXCEED THE PEL/TLV, USE ONLY NIOSH/MSHA APPROVED SUPPLIED AIR RESPIRATOR OPERATED IN A POSITIVE PRESSURE MODE AS SPECIFIED IN THE NIOSH/OSHA 1981 OCCUPATIONAL HEALTH GUIDELINES FOR CHEMICAL HAZARDS.

### EYE PROTECTION

EYE PROTECTION, INCLUDING BOTH CHEMICAL SPLASH GOGGLES AND FACE SHIELD, MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPRAYING LIQUID OR AIRBORNE PARTICLES. CONTACT LENSES MUST NOT BE WORN.

### SKIN PROTECTION

IMPERVIOUS PROTECTIVE SUIT WITH GLOVES, BOOTS, AND FULL HEAD AND FACE PROTECTION MUST BE WORN. THE EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.

### ENGINEERING CONTROLS

BOTH LOCAL EXHAUST AND GENERAL ROOM VENTILATION ARE USUALLY REQUIRED.

### OTHER HYGENIC PRACTICES

EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

### OTHER WORK PRACTICES

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

## 9 - EMERGENCY AND FIRST AID

### INHALATION

IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

### EYE CONTACT

IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

### SKIN CONTACT

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH WITH LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATER-LESS CLEANER FIRST. OBTAIN EMERGENCY MEDICAL ATTENTION.

### INGESTION

IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

### EMERGENCY MEDICAL TREATMENT PROCEDURES

VIGOROUS ANTI-INFLAMMATORY/STEROID TREATMENT MAY BE REQUIRED AT FIRST EVIDENCE OF PULMONARY/UPPER AIRWAY EDEMA.

IF SWALLOWED, DO NOT INDUCE VOMITING. GASTRIC LAVAGE AND CATHARTIC

OFC(R) SC-303 SCALE/CORROSION INHIBITOR

MSDS ID: 6-005501

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9 - EMERGENCY AND FIRST AID (continued)

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INDICATED.

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10 - SPILL AND DISPOSAL

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## PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED

EXTREMELY FLAMMABLE LIQUID. RELEASE CAUSES IMMEDIATE FIRE/EXPLOSION HAZARD. EXTINGUISH ALL IGNITION SOURCES. IMPOUND/RECOVER LARGE LAND SPILL; SOAK UP SMALL SPILL. ON WATER, MAY BIODEGRADE. CONTAIN/MINIMIZE DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS.

## WASTE DISPOSAL METHODS

CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO POTENTIALLY LOW FLASH POINT (SEE 40 CFR 261 AND 29 CFR 1910). LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS IN SYSTEMS COMPATIBLE WITH WATER SOLUBLE WASTES. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

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11 - ADDITIONAL PRECAUTIONS

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## HANDLING AND STORAGE PROCEDURES

STORE IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAME, STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. STORE DRUMS WITH BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE REMOVING CLOSURE. CONTAINERS MUST BE GROUNDED BEFORE BEGINNING TRANSFER. ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. HANDLE "EMPTY" CONTAINERS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE. VAPOR SPACE ABOVE LIQUID MAY BE FLAMMABLE/EXPLOSIVE UNLESS BLANKETED WITH INERT GAS.

## DECONTAMINATION PROCEDURES

WHEN CLEANING OR REPAIRING EQUIPMENT CONTAMINATED WITH THIS MATERIAL, TOTAL-ENCAPSULATING IMPERVIOUS PROTECTIVE SUITS, GLOVES, AND BOOTS SHOULD BE WORN TO PREVENT ANY CONTACT. A POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS AND/OR A SUPPLIED AIR RESPIRATOR SHOULD BE USED.

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12 - LABEL INFORMATION

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## USE STATEMENT

FOR INDUSTRIAL USE ONLY  
KEEP OUT OF REACH OF CHILDREN

## SIGNAL WORD

DANGER

## PHYSICAL HAZARDS

EXTREMELY FLAMMABLE

## HEALTH HAZARDS

INHALATION HAZARD

SEVERE SKIN AND EYE IRRITANT

HIGH INGESTION HAZARD-CHEMICAL PNEUMONIA

SIMILAR MATERIAL INDUCES TUMORS IN LAB ANIMALS

## PRECAUTIONARY MEASURES

DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.

KEEP CONTAINER CLOSED WHEN NOT IN USE.

DO NOT GET IN EYES.

AVOID PROLONGED OR REPEATED BREATHING OF VAPOR.

AVOID CONTACT WITH SKIN.

USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.

PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS.

WASH THOROUGHLY AFTER HANDLING.

DO NOT TASTE/SWALLOW.

DO NOT TAKE INTERNALLY.

## OFC(R) SC-303 SCALE/CORROSION INHIBITOR

MSDS 10: 6-005501

## 13 - SUPPLEMENT

## HEALTH HAZARDS - SECTIONS 2 AND 7

REGARDING POTENTIAL CHRONIC HEALTH HAZARDS WHICH MAY RESULT FROM LONG-TERM, REPEATED CONTACT, THIS MATERIAL MAY CONTAIN POLYNUCLEAR AROMATIC HYDROCARBONS (PNA'S). STUDIES HAVE SHOWN THAT THE REPEATED PAINTING OF PNA'S ON THE SKIN OF EXPERIMENTAL ANIMALS OVER A SUSTAINED PERIOD RESULTS IN THE INDUCTION OF TUMORS. INDIVIDUALS SHOULD AVOID SKIN CONTACT AND SHOULD WASH AFFECTED AREAS IMMEDIATELY IF CONTACT OCCURS.

ISOPROPANOL HAS BEEN REPORTED IN ONE ANIMAL STUDY TO BE FETOTOXIC AT LEVELS OF 2.5% IN DRINKING WATER. NO TERATOGENIC EFFECTS WERE, OR HAVE BEEN, REPORTED. THERE ARE NO REPORTS OF ADVERSE REPRODUCTIVE EFFECTS IN HUMANS EXPOSED TO THIS CHEMICAL.

THIS PRODUCT CONTAINS ETHYLENE GLYCOL, WHICH WHEN INGESTED (AND APPROPRIATE THERAPEUTIC MEASURES ARE NOT TAKEN WITHIN A FEW HOURS), MAY CAUSE DAMAGE MAINLY TO KIDNEYS BUT ALSO TO LIVER AND BRAIN. IN THE WORKPLACE, INGESTION IS NOT A NORMAL ROUTE OF EXPOSURE TO ETHYLENE GLYCOL. THUS, ETHYLENE GLYCOL HAS BEEN USED FOR MANY YEARS IN THE WORKPLACE WITHOUT SERIOUS ADVERSE HEALTH EFFECTS.

THIS MATERIAL CONTAINS METHANOL, WHICH WHEN INGESTED, HAS CAUSED ACIDOSIS, OCULAR TOXICITY RANGING FROM DIMINISHED VISUAL CAPACITY TO COMPLETE BLINDNESS, AND DEATH.

## NOTE -- QUALIFIERS AND CODES USED IN THIS MSDS

EQ = EQUAL	AP = APPROXIMATELY
LT = LESS THAN	GT = GREATER THAN
TR = TRACE	UK = UNKNOWN
N/AP = NOT APPLICABLE	N/P = NO APPLICABLE INFORMATION FOUND
N/DA = NO DATA AVAILABLE	

## 14 - DISCLAIMERS

SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

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

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

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

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

(26)

Printed 03-21-1995

## MATERIAL SAFETY DATA SHEET

Page 1

IRONOX(R) CT-9058

Identification Code 2-2-0

IRONOX is a registered trademark of Baker Performance Chemicals Incorporated  
MSDS ID: 9657017

## 1 - SECTION I - IDENTITY

BAKER PERFORMANCE CHEMICALS, INC.  
A Baker Hughes Company  
3920 ESSEX LANE, P.O. BOX 27714  
HOUSTON, TX 77227-7714EMERGENCY TELEPHONE NUMBERS:  
CHEMTREC: 1-800-424-9300  
800-231-3606  
TELEPHONE NUMBER FOR INFORMATION:  
713-599-7400CHEMICAL NAME: Chemical Identity  
Is A Trade Secret

CHEMICAL FAMILY: Proprietary

## 2 - SECTION II - REGULATORY CLASSIFICATION

## ENVIRONMENTAL

RQ= 3622 Gallons  
(Methanol)  
TPQ= NoneSARA 313: Yes  
Methanol <17%

## OCCUPATIONAL

OSHA Non-Hazardous: No

OSHA Hazardous: Yes

X Acute  
NA Chronic  
X Fire  
NA Pressure  
NA Reactive

## TRANSPORTATION

Not Regulated: No

Regulated: Yes  
Flammable Liquid,  
N.O.S., (Contains  
Methanol), 3, UN 1993  
III

The components of this product are listed on the TSCA inventory.

## 3 - SECTION III - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENT	CAS #	PEL(OSHA)*			TLV(ACGIH)*		MFC* REC, TWA
		TWA	STEL	A/L	TWA	STEL	
Methanol (Skin) (<17%)	67-56-1	200	250		200	250	

\*ppm unless otherwise indicated; (C) denotes ceiling limit

## 4 - SECTION IV - PHYSICAL &amp; CHEMICAL PROPERTIES

Specific Gravity @60F: 0.975  
(H2O=1)pH: 4.5 - 5.5 (Neat)  
5% of Product:

Density (lbs/gallon): 8.12

Viscosity (Method): Not Determined

Vapor Density (Air=1): &gt;1

Appearance and Odor: Clear light amber  
liquid with strong sweet odor.Solubility: Water & brine soluble;  
oil soluble

Stability: Stable

Freezing Point: Not Determined

Pour Point: Of

Flash Point (Method): 110F (TCC)

Percent Organic Compound: Proprietary

Boiling Point: Not Determined

Conditions to Avoid: Oxidizers; heat,  
sparks, or open flame

Vapor Pressure: Not Determined

HAZ. Decomp. Prod.: Carbon monoxide; oxides of nitrogen and HCl.

Printed 03-21-1995

## MATERIAL SAFETY DATA SHEET

Page 2

RONOX(R) CT-9058

Caution Code 2-2-0

VOX" is a registered trademark of Baker Performance Chemicals Incorporated  
ID: 9657017

## 4 - SECTION IV - PHYSICAL &amp; CHEMICAL PROPERTIES (continued)

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:

Flammable Liquid. Can release vapors that 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.

## 5 - SECTION V - HEALTH HAZARDS

## 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.

SKIN ABSORPTION: Harmful if absorbed through the skin.

## OTHER INFORMATION:

Methanol is a component of this product and is poisonous by inhalation, skin absorption, and ingestion. Brief contact with the skin may produce mild skin irritation and drying of the skin which can produce dermatitis. Symptoms from prolonged skin contact or inhalation of vapors or mists include headache, dizziness, nausea, vomiting, weakness, vertigo, chills, shooting pains in the extremities, gastric pain, insomnia, acidosis, formic acid in the urine, and eye effects including blindness due to destruction of the optic nerve, coma, and death. Brief eye contact may produce irritation, tearing, or burning of the eye. Ingestion may produce mental sluggishness, nausea, vomiting, eye effects including destruction of the optic nerve (which will impair vision), stomach pain, acidosis, coma, and death. Some symptoms may be delayed from 12 to 18 hours after exposure.

## Toxicity Data:

Oral human LDLo = 143 & 428 mg/kg (RTECS)

Oral rat LD50 = 5,628 mg/kg (RTECS)

Inhalation rat LC50 = 64,000 ppm/4 Hr (RTECS)

Skin rabbit LD50 = 15,800 mg/kg (RTECS)

## Standard Draize Testing

Skin Rabbit - 20 mg/24 hours - Reaction - Moderate (RTECS)

Eye Rabbit - 40 mg - Reaction - Moderate (RTECS)

TARGET ORGANS (29 CFR 1910.1200-APPENDIX A):

Eye Hazard

Cutaneous Hazard (Skin)

Pulmonary Agent (Lungs)

## SECTION VI - EMERGENCY &amp; FIRST AID PROCEDURES

EYE CONTACT: Hold eyelids apart and flush eyes with plenty of water for at



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## MATERIAL SAFETY DATA SHEET

Page 3

CRONOX(R) CT-9058

Hazard Code 2-2-0

CRONOX is a registered trademark of Baker Performance Chemicals Incorporated  
Hazard ID: 9657017

## 6 - SECTION VI - EMERGENCY &amp; FIRST AID PROCEDURES (continued)

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.

## RESPIRATORY

CHEMICAL RESISTANT  
APPAREL

## EYE/FACE

X As Needed  
Air Supplied (SCBA)  
X Air Purifying  
X Full Face Piece  
Half Face Piece  
X Cartridge or Canister  
Acid Gas  
X Organic Vapor  
Ammonia

X CPE Gloves  
Tyvek Polyethylene  
Suits  
Neoprene Boots

X Chemical Splash  
Goggles  
Full Face Shield

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 above, 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).

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.

## SECTION VIII - SPILL &amp; 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 hazardous for reasons other than, or in addition to product characteristics.

MATERIAL SAFETY DATA SHEET

Printed 03-21-1995

Page 4

CRONOX(R) CT-9058

Classification Code 2-2-0

CRONOX is a registered trademark of Baker Performance Chemicals Incorporated  
MSDS ID: 9657017

8 - SECTION VIII - SPILL & LEAK PROCEDURES (continued)

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: Jack Lowell  
Regulatory Information Specialist

Date: 10/12/94 Supersedes: 09/05/94

10/12/94 - Changes to Sections II, III, V, & VII.

UNOCAL®

UNOCAL CHEMICALS DIVISION  
PETROCHEMICALS GROUP

(27)

Product Name: XYLENE  
Product Code No: 11420

Page 1 of 5  
Issue Date: 3/21/89

MANUFACTURER:

UNOCAL CHEMICALS DIVISION  
UNION OIL COMPANY OF CALIFORNIA  
1345 N. MEACHAM  
SCHAUMBURG, ILLINOIS 60196

CONTACT FOR FURTHER INFORMATION:  
MSDS COORDINATOR (312) 619-2644

Transportation Emergencies:

Call CHEMTREC  
(800) 424-9300 Cont. U.S.  
(202) 483-7616 (Collect)  
from Alaska & Hawaii  
Health Emergencies:  
CALL LOS ANGELES POISON  
INFORMATION CENTER (24 hrs.)  
1-(800)-356-3129

PRODUCT IDENTIFICATION

PRODUCT NAME: XYLENE

SYNONYMS: AMSCO SOLV 1420  
DIMETHYL BENZENE  
XYLOL

GENERIC NAME: VOLATILE SOLVENT

CHEMICAL FAMILY: AROMATIC HYDROCARBON

DOT PROPER  
SHIPPING NAME: XYLENE

ID NUMBER: UN1307

HAZARD  
CLASSIFICATION: FLAMMABLE LIQUID

CAS NUMBER: 1330-20-7

SECTION I - HAZARDOUS INGREDIENTS/EXPOSURE LIMITS		CAS NO	LIMITS	UNITS	AGENCY	TYPE
XYLENE		1330-20-7	100.0000	PPM	ACGIH	TWA
			150.0000	PPM	ACGIH	STEL
			100.0000	PPM	OSHA	TWA
			300.0000	PPM	CAL OSHA	CEIL
			200.0000	PPM	CAL OSHA	EXCUR
ETHYL BENZENE		100-41-4	100.0000	PPM	ACGIH	TWA
			125.0000	PPM	ACGIH	STEL
			100.0000	PPM	OSHA	TWA
			125.0000	PPM	OSHA	STEL

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING  
REQUIREMENTS OF SARA 313 AND 40 CFR 372:

XYLENE CAS# 1330-20-7 99-100 WT%

## SECTION II - EMERGENCY AND FIRST AID PROCEDURES

\*\*\*EMERGENCY\*\*\*

Have physician call LOS ANGELES POISON  
INFORMATION CENTER (24 hrs.) (800) 356-3129E CONTACT:

MOVE VICTIM AWAY FROM EXPOSURE AND INTO FRESH AIR. IF IRRITATION OR REDNESS DEVELOPS, FLUSH EYES WITH CLEAN WATER AND SEEK MEDICAL ATTENTION. FOR DIRECT CONTACT, HOLD EYELIDS APART AND FLUSH THE AFFECTED EYE(S) WITH CLEAN WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION.

SKIN CONTACT:

REMOVE CONTAMINATED SHOES AND CLOTHING AND CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION (BREATHING):

IF RESPIRATORY SYMPTOMS OR OTHER SYMPTOMS OF EXPOSURE DEVELOP, MOVE VICTIM AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSIST, SEEK IMMEDIATE MEDICAL ATTENTION. IF VICTIM IS NOT BREATHING, IMMEDIATELY BEGIN ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULTIES DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION (SWALLOWING):

ASPIRATION HAZARD: DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH BECAUSE THIS MATERIAL CAN ENTER THE LUNGS AND CAUSE SEVERE LUNG DAMAGE. IF VICTIM IS DROWSY OR UNCONSCIOUS, PLACE ON THE LEFT SIDE WITH THE HEAD DOWN. IF POSSIBLE, DO NOT LEAVE VICTIM UNATTENDED. SEEK MEDICAL ATTENTION.

## SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

EYE CONTACT:

THIS MATERIAL IS AN EYE IRRITANT. DIRECT CONTACT WITH THE LIQUID OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING, TEARING, REDNESS AND SWELLING.

SKIN CONTACT:

THIS MATERIAL MAY CAUSE SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE REDNESS, BURNING, AND DRYING AND CRACKING OF THE SKIN. NO HARMFUL EFFECTS HAVE BEEN DEMONSTRATED IN SKIN ABSORPTION STUDIES. PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

INHALATION (BREATHING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, BREATHING HIGH CONCENTRATIONS OF VAPORS OR MISTS MAY CAUSE IRRITATION OF THE NOSE AND THROAT, AND SIGNS OF NERVOUS SYSTEM DEPRESSION (E.G., DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). RESPIRATORY SYMPTOMS ASSOCIATED WITH PRE-EXISTING LUNG DISORDERS (E.G., ASTHMA-LIKE CONDITIONS) MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

INGESTION:

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, INGESTION OF EXCESSIVE QUANTITIES MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT, AND SIGNS OF NERVOUS SYSTEM DEPRESSION (E.G., DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). ASPIRATION HAZARD - THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

MENTS:

THIS MATERIAL HAS NOT BEEN IDENTIFIED AS A CARCINOGEN BY NTP, IARC OR OSHA. REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE (SOMETIMES REFERRED TO AS SOLVENT OR PAINTERS' SYNDROME). INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AN INHALING THIS PRODUCT MAY BE HARMFUL OR FATAL.

SECTION IV - SPECIAL PROTECTION INFORMATION

VENTILATION:

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REQUIRED. WHERE EXPLOSIVE MIXTURES MAY BE PRESENT, SYSTEMS SAFE FOR SUCH LOCATIONS MUST BE USED.

RESPIRATORY PROTECTION:

THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I). DEPENDING ON THE AIRBORNE CONCENTRATION, USE A RESPIRATOR OR GAS MASK WITH APPROPRIATE CARTRIDGES AND CANNISTERS (NIOSH APPROVED, IF AVAILABLE) OR SUPPLIED AIR EQUIPMENT.

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN WORK AREA FOR FLUSHING EYES AND SKIN. IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED.

SECTION V - REACTIVITY DATA

STABILITY:

STABLE

INCOMPATIBILITY (MATERIALS TO AVOID):

THIS PRODUCT IS INCOMPATIBLE WITH STRONG ACIDS OR BASES, OXIDIZING AGENTS AND SELECTED AMINES.

HAZARDOUS DECOMPOSITION PRODUCTS:

COMBUSTION MAY YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION VI - SPILL OR LEAK PROCEDURES

\*\*\*HIGHWAY OR RAILWAY SPILLS\*\*\*  
Call CHEMTREC (800) 424-9300 Cont. U.S.  
(Collect) (202) 483-7616 from Alaska & Hawaii

CAUTIONS IN CASE OF RELEASE OR SPILL:

STAY UPWIND AND AWAY FROM SPILL. KEEP ALL SOURCES OF IGNITION AWAY FROM SPILL. IF SPILL IS INDOORS, VENTILATE AREA OF SPILL. FOAM, ESPECIALLY HIGH EXPANSION FOAM, MAY BE USED TO SUPPRESS VAPORS. KEEP OUT OF DRAINS, SEWERS OR WATERWAYS. USE SAND OR OTHER INERT MATERIAL TO DAM AND CONTAIN SPILL. DO NOT FLUSH AREA WITH WATER. FOR SMALL SPILLS, DO NOT FLUSH WITH WATER; USE ABSORBANT PADS. CONTACT FIRE AUTHORITIES AND APPROPRIATE FEDERAL, STATE OR LOCAL AGENCIES. IF SPILL IN EXCESS OF EPA REPORTABLE QUANTITY IS MADE INTO THE ENVIRONMENT, IMMEDIATELY NOTIFY THE NATIONAL RESPONSE CENTER (PHONE NUMBER: 800-424-8802).

WASTE DISPOSAL METHOD:

DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

KEEP CONTAINERS TIGHTLY CLOSED. KEEP CONTAINERS COOL, DRY, AND AWAY FROM SOURCES OF IGNITION. USE AND STORE THIS PRODUCT WITH ADEQUATE VENTILATION. AVOID INHALATION OF VAPORS AND PERSONAL CONTACT WITH THE PRODUCT. USE GOOD PERSONAL HYGIENE PRACTICE. "EMPTY" CONTAINERS RETAIN 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 OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY SHIPPED TO THE SUPPLIER OR A DRUM RECONDITIONER. ALL OTHER CONTAINERS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS PRODUCT, REFER TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ANSI Z39.1, AND OTHER GOVERNMENTAL AND INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING, OR OTHER CONTEMPLATED OPERATIONS.

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

HAZARD RANKING

NFPA	HEALTH HAZARD: 2	0 = LEAST	HMIS	HEALTH: 2 *
HAZARD	FLAMMABILITY: 3	1 = SLIGHT	HAZARD	FLAM: 3
CLASS	REACTIVITY: 0	2 = MODERATE	CLASS	REACT: 0
	OTHER: -	3 = HIGH		P.P.E.: -
		4 = EXTREME		

LOWER EXPLOSIVE LIMIT (% VOL.)

1.0

UPPER EXPLOSIVE LIMIT (% VOL.)

7.0

FLASH POINT

81, TCC F

EXTINGUISHING MEDIA:

SMALL FIRES: EXTINGUISH WITH DRY CHEMICAL, CO2 OR FOAM. LARGE FIRES: THE USE OF DRY CHEMICAL OR FOAM IS RECOMMENDED. WATER MAY BE AN INEFFECTIVE EXTINGUISHING AGENT.

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

RE & EXPLOSION HAZARDS:

THIS MATERIAL IS FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME OR STATIC ELECTRICITY.

FIRE FIGHTING PROCEDURES:

THE USE OF A SCBA IS RECOMMENDED FOR FIRE FIGHTERS. WATER SPRAY MAY BE USEFUL IN MINIMIZING VAPORS AND COOLING CONTAINERS EXPOSED TO HEAT AND FLAME. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

SECTION IX - PHYSICAL DATA

<u>APPROX. BOILING POINT</u>	<u>VAPOR DENSITY (AIR = 1)</u>	<u>VAPOR PRESSURE</u>
282 TO 286 F	3.7	6.6 MM HG @ 20C
<u>EVAPORATION RATE (N-BUTYL ACETATE = 1)</u>	<u>% VOLATILE</u>	<u>% SOLUBILITY IN WATER</u>
0.80	100%	NEGLIGIBLE (< 5%)
<u>SPECIFIC GRAVITY (TEMP/TEMP)</u>	<u>APPEARANCE</u>	<u>ODOR</u>
0.870 (60F/60F)	CLEAR, LITTLE IF ANY COLOR	CHARACTERISTIC

SECTION XI - DOCUMENTARY INFORMATION

ISSUE DATE: 3/21/89 PRODUCT CODE NO. 11420

REV. DATE: 1/13/89 PREV. PROD. CODE NO. 1420

MSDS NO: 6314 PREV. MSDS NO: 864

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

## CLEANLINK CL-9405 INDUSTRIAL CLEANER

MSDS TO: 6-010654

## 1 - GENERAL INFORMATION

800/424-9300 ChemTred  
800/444-8969 Emergency  
918/245-2224 Information

GENERIC NAME  
OXYALKYLATED PHENOL  
DOT PROPER SHIPPING NAME  
COMBUSTIBLE LIQUID, N.O.S.  
DOT HAZARD CLASS  
COMBUSTIBLE LIQUID

DATE REVISED: 8-11-89

UN/NA NUMBER  
NA 1993

NFPA CLASSIFICATION: HEALTH:(1) FLAMMABILITY:(2) REACTIVITY:(0)  
SPECIFIC HAZARD:(N/A)  
DOT/CERCLA RQ: NONE

## 2 - SUMMARY OF HAZARDS

## CAUTION

PHYSICAL HAZARDS: MODERATELY COMBUSTIBLE

ACUTE HEALTH HAZARDS:  
(SHORT-TERM) NO DATA FOUND; SUSPECT MODERATE EYE IRRITANT  
NO DATA FOUND; SUSPECT SLIGHT SKIN IRRITANT  
NO DATA FOUND; NO EXPECTED SKIN ABSORPTION HAZARD  
NO DATA FOUND; SUSPECT SLIGHT INGESTION HAZARD  
NO DATA FOUND; NO EXPECTED INHALATION HAZARD

CHRONIC HEALTH HAZARDS:  
(LONG-TERM) NO DATA IS AVAILABLE WITH WHICH TO ESTIMATE  
POSSIBLE TOXICITY FROM LONG-TERM CONTACT WITH  
THIS PRODUCT

## 3 - COMPONENTS

COMPONENT NAME CAS NUMBER % COMPOSITION BY (WT.)

TRADE SECRET 10654-01H  
TRADE SECRET 10654-02H  
TRADE SECRET 10654-03H  
WATER

THIS PRODUCT CONTAINS NO SUBS. SECTION 313 LISTED CHEMICAL(S)

## 4 - PHYSICAL AND CHEMICAL DATA

BOILING POINT N/A  
FREEZING POINT N/A  
SPECIFIC GRAVITY (H<sub>2</sub>O=1 AT 39.2F) AP 0.992  
VISCOSITY UNITS, TEMP. N/A  
VAPOR PRESSURE LI 17.3 MM HG AT 70F  
VAPOR SP GR (AIR=1 AT 60 - 90F) 0.6  
APPEARANCE AND ODOR BLUE VIOLET LIQUID - NO DISTINCT ODOR  
CONDITIONS AND MATERIALS TO AVOID HEAT AND OPEN FLAME  
STRONG OXIDIZING AGENTS; STRONG ALKALIES

PH 8 TO 9  
ORY POINT N/A  
VOLATILE CHARACTERISTICS NEGLIGIBLE  
SOLUBILITY IN WATER COMPLETE  
STABILITY STABLE  
HAZARDOUS POLYMERIZATION NOT EXPECTED TO OCCUR



## CLEANLINK CL-9405 INDUSTRIAL CLEANER

MSDS ID: 6-010654

## 4 - PHYSICAL AND CHEMICAL DATA (continued)

## HAZARDOUS DECOMPOSITION PRODUCTS

INCOMPLETE COMBUSTION MAY PRODUCE CARBON MONOXIDE AND/OR CARBON DIOXIDE

## 5 - OCCUPATIONAL EXPOSURE LIMITS

SUBSTANCE	SOURCE	DATE	TYPE	VALUE	TIME
NO ESTABLISHED STANDARDS					

## 6 - FIRE AND EXPLOSION

## FLASH POINT METHOD=

GT 140F

## AUTOIGNITION TEMP. METHOD=

N/DA

## FLAMMABLE LIMITS (% VOLUME IN AIR)

LOWER: N/DA

UPPER: N/DA

## FIRE AND EXPLOSION HAZARDS

HEAT FROM FIRE CAN GENERATE FLAMMABLE VAPOR. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED. VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG DISTANCES ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE. FINE SPRAYS/MISTS MAY BE COMBUSTIBLE AT TEMPERATURES BELOW NORMAL FLASH POINT.

## EXTINGUISHING MEDIA

DRY CHEMICAL

CO2

WATER SPRAY

FOAM

WATER

WATER FOG

## SPECIAL FIREFIGHTING PROCEDURES

DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. POISONOUS GAS(ES) MAY BE GENERATED WITHOUT WARNING ON RELEASE FROM CONFINEMENT/HIGH TEMPERATURE DECOMPOSITION OR RUPTURE OF CLOSED CONTAINERS/WATER CONTACT, ALL OF WHICH WILL GREATLY INCREASE HAZARDS OF FIREFIGHTING. SEE SECTION 4-DECOMPOSITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. NOTIFY AUTHORITIES IMMEDIATELY IF LIQUID ENTERS SEWER/PUBLIC WATERS.

## 7 - HEALTH HAZARDS

## ROUTES OF EXPOSURE

## INHALATION

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS NOT EXPECTED TO BE AN INHALATION HAZARD.

## EYE CONTACT -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO CAUSE EYE IRRITATION.

## SKIN ABSORPTION

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA IS KNOWN TO EXIST, THIS MATERIAL IS NOT EXPECTED TO BE A HEALTH HAZARD BY SKIN ABSORPTION.

## SKIN IRRITATION -- PRIMARY ROUTE

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A SKIN IRRITANT.

## INGESTION

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INGESTION HAZARD.

## MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

NO ADDITIONAL MEDICAL INFORMATION FOUND.



**CLEANLINK CL-9406 INDUSTRIAL CLEANER**  
MSDS ID: 6-010654

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**8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES**

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**RESPIRATORY PROTECTION**

NO OCCUPATIONAL EXPOSURE STANDARDS HAVE BEEN DEVELOPED FOR THIS MATERIAL. WHERE EXPOSURE THROUGH INHALATION MAY OCCUR FROM USE, NIOSH/MSHA APPROVED RESPIRATORY PROTECTION EQUIPMENT IS RECOMMENDED.

**EYE PROTECTION**

EYE PROTECTION SUCH AS CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID, AIRBORNE PARTICLES, OR VAPOR. CONTACT LENSES SHOULD NOT BE WORN.

**SKIN PROTECTION**

DEPENDING ON THE CONDITIONS OF USE, PROTECTIVE GLOVES, APRON, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT SHOULD BE CLEANED THOROUGHLY AFTER EACH USE.

**ENGINEERING CONTROLS**

LOCAL EXHAUST VENTILATION MAY BE REQUIRED IN ADDITION TO GENERAL ROOM VENTILATION.

**OTHER HYGIENIC PRACTICES**

EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

**OTHER WORK PRACTICES**

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

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**9 - EMERGENCY AND FIRST AID**

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**INHALATION**

REMOVE VICTIM TO FRESH AIR IMMEDIATELY. OBTAIN EMERGENCY MEDICAL ATTENTION IF BREATHING DIFFICULTY PERSISTS BEYOND 15 MINUTES.

**EYE CONTACT**

IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

**SKIN CONTACT**

REMOVE CONTAMINATED CLOTHING AS NEEDED. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH WITH LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATER-LESS CLEANER FIRST.

**INGESTION**

IF LARGE QUANTITY SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION.

**EMERGENCY REFERENCE TREATMENT PROCEDURES**

SEE TSDS 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

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**10 - SPILL AND DISPOSAL**

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**PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED**

MAY CONTAMINATE WATER SUPPLIES/POLLUTE PUBLIC WATERS. SLIPPERY - SPREAD GRANULAR COVER. ON WATER, MAY BIODEGRADE. CONTAIN/MINIMIZE DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS.

**WASTE DISPOSAL METHODS**

COMPLY WITH FEDERAL/STATE/LOCAL REGULATIONS FOR DISPOSAL.

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**11 - ADDITIONAL PRECAUTIONS**

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**HANDLING AND STORAGE PROCEDURES**

STORE IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAME, STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. STORE DRUMS WITH BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE REMOVING CLOSURE. CONTAINERS MUST BE GROUNDED BEFORE BEGINNING TRANSFER. ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. HANDLE "EMPTY" CONTAINERS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE.

**CLEANLINK CL-9405 INDUSTRIAL CLEANER**  
MSDS ID: 6-010654

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11 - ADDITIONAL PRECAUTIONS (continued)

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## DECONTAMINATION PROCEDURES

EMPTY CONTAINERS SHOULD BE THOROUGHLY RINSED WITH COPIOUS AMOUNTS OF CLEAN WATER. THE RINSE WATER CAN THEN BE USED FOR MAKEUP WATER FOR ANY NECESSARY DILUTION OF THE CONCENTRATED PRODUCT BEFORE USE, OR IT CAN BE PROPERLY DISCARDED.

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12 - LABEL INFORMATION

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## USE STATEMENT

FOR INDUSTRIAL USE ONLY  
KEEP OUT OF REACH OF CHILDREN

## SIGNAL WORD

CAUTION

## PHYSICAL HAZARDS

MODERATELY COMBUSTIBLE

## HEALTH HAZARDS

MODERATE EYE IRRITANT

SKIN IRRITANT

SLIGHT INGESTION HAZARD

## PRECAUTIONARY MEASURES

DO NOT GET IN EYES.

AVOID PROLONGED OR REPEATED CONTACT WITH SKIN.

PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS.

WASH THOROUGHLY AFTER HANDLING.

DO NOT TASTE/SWALLOW.

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13 - SUPPLEMENT

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## NOTE -- QUALIFIERS AND CODES USED IN THIS MSDS

EQ = EQUAL

AP = APPROXIMATELY

LT = LESS THAN

GT = GREATER THAN

TR = TRACE

UK = UNKNOWN

N/AP = NOT APPLICABLE

N/P = NO APPLICABLE INFORMATION FOUND

N/DA = NO DATA AVAILABLE

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14 - DISCLAIMERS

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SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

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

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

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

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



29

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

Form Approved  
OMB No. 44-R1387

# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

MANUFACTURER'S NAME <b>FISHER-STEVENSON, INC.</b>		EMERGENCY TELEPHONE NO. <b>512-573-5619</b>
ADDRESS (Number, Street, City, State, and ZIP Code) <b>120 E. Constitution, Victoria, Texas 77902</b>		
CHEMICAL NAME AND SYNONYMS <b>SURFACTANT COMPOUND/AMINE SALT</b>		TRADE NAME AND SYNONYMS <b>PS</b>
CHEMICAL FAMILY <b>AMINE SALT</b>	FORMULA <b>proprietary</b>	

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS		NA			NA
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
NA					

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	NA	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.07
VAPOR PRESSURE (mm Hg.)	NA	PERCENT VOLATILE BY VOLUME (%)	NA
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (_____=1)	NA
SOLUBILITY IN WATER	100%		
APPEARANCE AND ODOR <b>RED WAX LIKE /BLAND ODOR</b>			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	PPMC: +200	FLAMMABLE LIMITS	NA	Lel	Uel
EXTINGUISHING MEDIA <b>DRY CHEMICAL, WATERSPRAY, OR WATERFOG, CO2 FOAM, SAND, EARTH</b>					
SPECIAL FIRE FIGHTING PROCEDURES <b>DO NOT ENTER WITHOUT PROPER PROTECTIVE EQUIPMENT, INCLUDING SELF-CONTAINED BREATHING APPARATUS.</b>					
UNUSUAL FIRE AND EXPLOSION HAZARDS <b>NONE</b>					

# MATERIAL SAFETY DATA SHEET

30

VISLINK® VL-9362 VISCOSIFIERS

MSDS No.  
HCR008838

Rev. Date  
09/12/86



CHEMLINK PETROLEUM, INC.  
A DIVISION OF PONY INDUSTRIES  
9100 W. 21ST STREET  
SAND SPRINGS, OK 74063

**IMPORTANT:** Read this MSDS before handling and disposing of this product and pass this information on to employees, customers, and users of this product

This product is covered by the OSHA Hazard Communication Rule and this document has been prepared in accord with the MSDS requirements of the rule

I. General			
Trade Name VISLINK VL-9362 VISCOSIFIERS		Telephone Numbers EMERGENCY 800/424-9300 CHEMTREC 800/232-1616 EXT. 347 CUSTOMER SERVICE 918/245-2224 INFO ONLY	
Other Names N/P			
Chemical Family POLYACRYLAMIDE SOLUTION		DOT Hazardous Materials Proper Shipping Name NOT REGULATED, N.O.S.	
Generic Name POLYACRYLAMIDE SOLUTION		DOT Hazard Class NOT REGULATED	
CAS No. SEE SECTION IX	Company ID No. E000883800	UN/NA ID No. N/AP	
II. WARNING Summary of Hazards			
PHYSICAL HAZARDS:		SLIGHTLY COMBUSTIBLE LIQUID	
ACUTE HEALTH EFFECTS: (SHORT TERM)		NO DATA FOUND; SUSPECT INHALATION HAZARD NO DATA FOUND; SUSPECT EYE CONTACT HAZARD NO DATA FOUND; SUSPECT SKIN IRRITATION HAZARD NO DATA FOUND; SUSPECT ASPIRATION HAZARD NO DATA ON SKIN ABSORPTION FOUND	
CHRONIC HEALTH EFFECTS: (LONG TERM)		NO INFORMATION IS AVAILABLE ON THE CHRONIC HEALTH EFFECTS OF THIS PRODUCT.	
III. Fire and Explosion			
Flash Point (Method) GT 200° F (TOC)		Autoignition Temperature (Method) N/DA	
		Flammable Limits (% Vol. in Air) Lower N/DA Upper N/DA	
Fire and Explosion Hazards		WHILE NOT NORMALLY COMBUSTIBLE, IF WATER CONTENT IS LOST (AS IN A FIRE), MATERIAL MAY RELEASE FLAMMABLE VAPORS IF EXPOSED TO HIGH TEMPERATURE. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED. VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG DISTANCES ALONG GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE.	
Extinguishing Media		DRY CHEMICAL CO2 FOAM USE WATER SPRAY/ WATER FOG FOR COOLING	
Special Firefighting Procedures		DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE "DECOMPOSITION PRODUCTS POSSIBLE." FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREASING RISK OF BURNS/INJURIES. MAY BECOME COMBUSTIBLE FOLLOWING EVAPORATION OF NON-COMBUSTIBLE CARRIER. USE WATER SPRAY/FOG FOR COOLING. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/PUBLIC WATERS.	

## VII.

## Emergency and First Aid

Inhalation	IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.
Eye Contact	IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.
Skin Contact	IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH WITH LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATER-LESS CLEANER FIRST. OBTAIN EMERGENCY MEDICAL ATTENTION.
Ingestion	IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.
Emergency Medical Treatment Procedures	VIGOROUS ANTI-INFLAMMATORY/STEROID TREATMENT MAY BE REQUIRED AT FIRST EVIDENCE OF PULMONARY/UPPER AIRWAY EDEMA.  IF SWALLOWED, DO NOT INDUCE VOMITING. GASTRIC LAVAGE AND CATHARTIC INDICATED.

## VIII.

## Spill and Disposal

Precautions if Material is Spilled or Released	COMBUSTIBLE LIQUID. RELEASE CAN CAUSE FIRE OR EXPLOSION. LIQUID OR VAPOR MAY IGNITE. EVACUATE AND LIMIT ACCESS. EQUIP RESPONDERS WITH PROPER PROTECTION. EXTINGUISH ALL IGNITION SOURCES. STOP RELEASE. PREVENT FLOW TO SEWERS OR PUBLIC WATERS. NOTIFY FIRE AND/OR ENVIRONMENTAL AUTHORITIES. BLANKET WITH FIREFIGHTING FOAM. RESTRICT WATER USE FOR CLEANUP. IMPOUND AND RECOVER LARGE SPILL. SOAK UP SMALL SPILL WITH INERT SOLIDS. USE SUITABLE DISPOSAL CONTAINERS. ON WATER, MATERIAL IS SOLUBLE; MAY FLOAT OR SINK. CONTAIN; MINIMIZE DISPERSION; COLLECT. DISPERSE RESIDUE. REPORT PER REGULATORY REQUIREMENTS.
Waste Disposal Methods	CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO POTENTIAL FOR EYE IRRITATION/WATER POLLUTION (SEE 40 CFR 261 AND 29 CFR 1910). LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS IN SYSTEMS COMPATIBLE WITH WATER SOLUBLE WASTES. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

## IX.

## Components

(This may not be a complete list of components)

Component Name	CAS No.	Carcinogen##	Composition amount (Wt.) (See Qualification on Page 4)
TRADE SECRET 8838-01#		N/AP	

# Specific Chemical Identity is a Trade Secret

Compositions given are typical values, not specifications.

##Listed By: 1 = NTP, 2 = IARC, 3 = OSHA, 4 = Other



## VISLINK® VL-9362 VISCOSIFIERS

MSDS No.  
HCRO0883  
Rev. Date  
09/12/86

## XII.

## Label Information

Manufacturer:	CHEMLINK PETROLEUM, INC. A DIVISION OF PONY INDUSTRIES 9100 W. 21ST STREET SAND SPRINGS, OK 74063	Telephone Numbers EMERGENCY 800/424-9300 CHEMTREC 800/232-1616 EXT. 347 CUSTOMER SERVICE 918/245-2224 INFO ONLY
Use Statement:	FOR INDUSTRIAL USE ONLY KEEP OUT OF REACH OF CHILDREN	
Signal Word:	WARNING	
Physical Hazards:	COMBUSTIBLE	
Health Hazards:	INHALATION HAZARD HIGH INGESTION HAZARD-CHEMICAL PNEUMONIA	SEVERE SKIN AND EYE IRRITANT
Precautionary Measures:	DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR. USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION. PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS. WASH THOROUGHLY AFTER HANDLING. DO NOT TASTE/SWALLOW. DO NOT TAKE INTERNALLY.	
DOT Information:	UN/NA ID Number- N/AP Hazard Class- NOT REGULATED Proper Shipping- NOT REGULATED, N.O.S.	
Instructions:	DRY CHEMICAL	
In case of fire, use-	CO2 FOAM	
First Aid -Inhalation	IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.	
-Eye Contact	IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.	
-Skin Contact	IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH WITH LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATER-LESS CLEANER FIRST. OBTAIN EMERGENCY MEDICAL ATTENTION.	
-Ingestion	IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.	
In case of spill,	COMBUSTIBLE LIQUID. EXTINGUISH ALL IGNITION SOURCES. BLANKET WITH FIREFIGHTING FOAM. SOAK UP SMALL SPILL. ON WATER, CONTAIN/MINIMIZE DISPERSION, COLLECT. REPORT PER REGULATORY REQUIREMENTS.	
Protective Equipment:		
-Respiratory	USE NIOSH/MSHA APPROVED AIR-PURIFYING OR SUPPLIED AIR RESPIRATOR AS APPROPRIATE.	
-Eye	BOTH CHEMICAL SPLASH GOGGLES AND FACE SHIELD.	
-Skin	IMPERVIOUS PROTECTIVE SUIT PLUS IMPERVIOUS GLOVES, BOOTS, AND FULL HEAD/FACE PROTECTION.	

MATERIAL SAFETY DATA SHEET

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INC-820 EMULSION BREAKER

1 - GENERAL INFORMATION

INTERCHEM, INC.

P. O. BOX 13166 79768  
3803 MANKINS 79763  
ODESSA, TX

24 hour emergency #  
(915) 550-7027

GENERIC NAME

DATE REVISED: 12/5/90

DEMULSIFIER

DOT PROPER SHIPPING NAME

UN/NA NUMBER

FLAMMABLE LIQUID, N.O.S.

UN 1993

(XYLENE, ISOPROPYL ALCOHOL)

DOT HAZARD CLASS

FLAMMABLE LIQUID

NFPA CLASSIFICATION: HEALTH (2) FLAMMABILITY (3) REACTIVITY (0)

SPECIFIC HAZARD (N/A)

DOT/CERCLA RQ: 16700 lbs. (XYLENE)

2 - SUMMARY OF HAZARDS

WARNING

PHYSICAL HAZARDS:

HIGHLY FLAMMABLE LIQUID

ACUTE HEALTH HAZARDS:  
(SHORT-TERM)

MODERATE SKIN IRRITANT  
SUSPECT INHALATION HAZARD  
SUSPECT EYE CONTACT HAZARD  
SUSPECT SKIN IRRITATION HAZARD  
SUSPECT INGESTION HAZARD

CHRONIC HEALTH HAZARDS:  
(LONG-TERM)

NO INFORMATION IS AVAILABLE ON CHRONIC HEALTH  
HAZARDS. HOWEVER, REPEATED SKIN CONTACT SHOULD BE  
AVOIDED AS THIS MATERIAL MAY CONTAIN POLYNUCLEAR  
AROMATIC HYDROCARBONS WHICH HAVE BEEN REPORTED TO  
INDUCE TUMORS IN LAB ANIMALS. SEE SUPPLEMENT.

3 - COMPONENTS

COMPONENT NAME

CAS NUMBER % COMPOSITION BY (WT.)

TRADE SECRET 5294-01#

TRADE SECRET 5294-02#

\*XYLENE

1330-20-7

< 11

\*ETHYLBENZENE

100-4-1-4

< 3

ISOPROPYL ALCOHOL

67-63-0

HEAVY AROMATIC SOLVENT

64742-94-5

CARCINOGEN AS LISTED BY IARC

\* THIS IS A SARA SECTION 313 LISTED CHEMICAL

US TSCA INVENTORY: ALL COMPONENTS ARE INCLUDED ON THE US TSCA INVENTORY

4 - PHYSICAL AND CHEMICAL DATA

BOILING POINT

180F

PH

N/A

FREEZING POINT

DRY POINT

AP -18C

N/A

SPECIFIC GRAVITY (H2O=1 AT 39.2F)

VOLATILE CHARACTERISTICS

.97

NEGLIGIBLE



## INC-820 EMULSION BREAKER

## 4 - PHYSICAL AND CHEMICAL DATA (continued)

VISCOSITY UNITS, TEMP.  
N/AP  
VAPOR PRESSURE  
11.0 MM HG AT 70F  
VAPOR SP GR (AIR=1 AT 60 - 90F)  
2.3  
APPEARANCE AND ODOR  
DARK BROWN LIQUID, AROMATIC ODOR  
CONDITIONS AND MATERIALS TO AVOID  
HEAT, SPARKS, AND OPEN FLAMES  
STRONG OXIDIZING AGENTS, STRONG ALKALIES  
HAZARDOUS DECOMPOSITION PRODUCTS  
INCOMPLETE COMBUSTION MAY RELEASE POISONOUS CARBON MONOXIDE AND OXIDES AND/OR  
COMPOUNDS OF NITROGEN AND SULFUR.

SOLUBILITY IN WATER  
NEGLIGIBLE  
STABILITY  
STABLE  
HAZARDOUS POLYMERIZATION  
NOT EXPECTED TO OCCUR

## 5 - OCCUPATIONAL EXPOSURE LIMITS

SUBSTANCE	SOURCE	DATE	TYPE	VALUE	TIME
XYLENE	ACGIH/OSHA	1989	TLV/PEL	100 PPM	8 HRS
			STEL	150 PPM	15 MIN
ISOPROPYL ALCOHOL	ACGIH/OSHA	1989	TLV/PEL	400 PPM	8 HRS
			STEL	500 PPM	15 MIN
ETHYLBENZENE	ACGIH/OSHA	1989	TLV/PEL	100 PPM	8 HRS
			STEL	125 PPM	15 MIN

## 6 - FIRE AND EXPLOSION

FLASH POINT METHOD=(D-56 )  
75F  
FLAMMABLE LIMITS (% VOLUME IN AIR)  
AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE  
LOWER: 1.1  
FIRE AND EXPLOSION HAZARDS  
RELEASES VAPORS AT NORMAL AMBIENT TEMPERATURES. WHEN MIXED WITH AIR AND  
EXPOSED TO IGNITION SOURCE, VAPORS CAN BURN IN OPEN OR EXPLODE IF CONFINED.  
FLAMMABLE VAPORS MAY BE HEAVIER THAN AIR. MAY TRAVEL LONG DISTANCES ALONG  
GROUND BEFORE IGNITING/FLASHING BACK TO VAPOR SOURCE.  
EXTINGUISHING MEDIA  
DRY CHEMICAL  
CO2  
WATER SPRAY  
ALCOHOL  
SPECIAL FIREFIGHTING PROCEDURES  
DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION 4 - DECOMPO-  
SITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION.  
HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREAS-  
ING RISK OF BURNS/INJURIES. DO NOT USE SOLID WATER STREAM/MAY SPREAD FIRE.  
USE WATER SPRAY/FOG FOR COOLING. AVOID FROTHING/STEAM EXPLOSION. BURNING  
LIQUID WILL FLOAT ON WATER. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/  
PUBLIC WATERS.

AUTOIGNITION TEMP. METHOD=  
AP 750F  
UPPER: 12.0

## 7 - HEALTH HAZARDS

## ROUTES OF EXPOSURE

## INHALATION

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO  
EXIST, THIS MATERIAL IS EXPECTED TO BE AN INHALATION HAZARD.

INC-820

**EMULSION BREAKER**

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**7 - HEALTH HAZARDS (continued)**

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**EYE CONTACT -- PRIMARY ROUTE**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO CAUSE EYE IRRITATION.

**SKIN ABSORPTION**

NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST.

**SKIN IRRITATION**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE A SKIN IRRITANT.

**INGESTION**

ALTHOUGH NO APPROPRIATE HUMAN OR ANIMAL HEALTH EFFECTS DATA ARE KNOWN TO EXIST, THIS MATERIAL IS EXPECTED TO BE AN INGESTION HAZARD.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

SEE SUPPLEMENT

---

**8 - PROTECTIVE EQUIPMENT / CONTROL MEASURES**

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**RESPIRATORY PROTECTION**

IF EXPOSURE CAN EXCEED THE PEL/TLV, USE ONLY NIOSH/MSHA APPROVED AIR-PURIFYING OR SUPPLIED AIR RESPIRATOR OPERATED IN A POSITIVE PRESSURE MODE PER THE NIOSH/OSHA 1981 OCCUPATIONAL HEALTH GUIDELINES FOR CHEMICAL HAZARDS.

**EYE PROTECTION**

EYE PROTECTION SUCH AS CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID, AIRBORNE PARTICLES, OR VAPOR. CONTACT LENSES SHOULD NOT BE WORN.

**SKIN PROTECTION**

WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.

**ENGINEERING CONTROLS**

GENERAL ROOM OR LOCAL EXHAUST VENTILATION IS USUALLY REQUIRED TO MEET EXPOSURE STANDARD(S).

**OTHER HYGIENIC PRACTICES**

EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

**OTHER WORK PRACTICES**

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

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**9 - EMERGENCY AND FIRST AID**

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**INHALATION**

IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.

**EYE CONTACT**

IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

**SKIN CONTACT**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH W/LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST. SEEK MEDICAL ATTENTION IF ILL EFFECT OR IRRITATION DEVELOPS.

**INGESTION**

IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. DO NOT INDUCE VOMITING/RISK OF DAMAGE TO LUNGS EXCEEDS POISONING RISK. OBTAIN EMERGENCY MEDICAL ATTENTION.

**EMERGENCY MEDICAL TREATMENT PROCEDURES**

TREAT BURNS OR ALLERGIC REACTIONS CONVENTIONALLY AFTER DECONTAMINATION. DO NOT INDUCE VOMITING. ADMINISTER AN AQUEOUS SLURRY OF ACTIVATED CHARCOAL FOLLOWED BY A CATHARTIC SUCH AS MAGNESIUM CITRATE OR SORBITOL.

## INC-820 EMULSION BREAKER

## 10 - SPILL AND DISPOSAL

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED  
EXTREMELY FLAMMABLE LIQUID. EXTINGUISH ALL IGNITION SOURCES. IMPOUND/  
RECOVER LARGE LAND SPILL. BLANKET WITH FIREFIGHTING FOAM. SOAK UP SMALL  
SPILL. ON WATER, MAY BIODEGRADE. CONTAIN/MINIMIZE DISPERSION/COLLECT.  
REPORT PER REGULATORY REQUIREMENTS.

## WASTE DISPOSAL METHODS

CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE DUE TO  
POTENTIALLY LOW FLASH POINT (SEE 40 CFR 261 AND 29 CFR 1910). WASTE MAY BE  
DESIGNATED D001 UNDER RCRA LISTING DUE TO PRESENCE OF ISOPROPYL ALCOHOL.  
LANDFILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CON-  
CENTRATED LIQUIDS. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE  
REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE, AVOID OVERLOADING/POISON-  
ING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

## 11 - ADDITIONAL PRECAUTIONS

## HANDLING AND STORAGE PROCEDURES

STORE IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS AWAY FROM HEAT, SPARKS,  
OPEN FLAME, STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. STORE  
DRUMS WITH BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE  
REMOVING CLOSURE. CONTAINERS MUST BE GROUNDED BEFORE BEGINNING TRANSFER.  
ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. HANDLE  
"EMPTY" CONTAINERS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE. VAPOR SPACE  
ABOVE LIQUID MAY BE FLAMMABLE/EXPLOSIVE UNLESS BLANKETED WITH INERT GAS.

## DECONTAMINATION PROCEDURES

ISOLATE, VENT, DRAIN, WASH AND PURGE SYSTEMS OR EQUIPMENT BEFORE MAINTEN-  
ANCE OR REPAIR. REMOVE ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR EXPLO-  
SIVENESS AND OXYGEN DEFICIENCIES. USE ADEQUATE PERSONAL PROTECTIVE  
EQUIPMENT. OBSERVE PRECAUTIONS PERTAINING TO CONFINED SPACE ENTRY.

## 12 - LABEL INFORMATION

## USE STATEMENT

FOR INDUSTRIAL USE ONLY

## SIGNAL WORD

WARNING

## PHYSICAL HAZARDS

HIGHLY FLAMMABLE

## HEALTH HAZARDS

SKIN IRRITANT

INHALATION HAZARD

SIMILAR MATERIAL INDUCES TUMORS IN LAB ANIMALS

MAY CAUSE LONG-TERM ADVERSE HEALTH EFFECTS

MUCOUS MEMBRANE IRRITANT

## PRECAUTIONARY MEASURES

DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.

KEEP CONTAINER CLOSED WHEN NOT IN USE.

DO NOT STORE NEAR COMBUSTIBLE MATERIALS.

STORE IN TIGHTLY CLOSED CONTAINERS.

AVOID PROLONGED OR REPEATED BREATHING OF VAPOR.

AVOID PROLONGED OR REPEATED CONTACT WITH SKIN.

USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.

## 13 - SUPPLEMENT

## CHRONIC HEALTH HAZARDS - SECTIONS 2 AND 7

REGARDING POTENTIAL CHRONIC HEALTH HAZARDS WHICH MAY RESULT FROM  
LONG-TERM, REPEATED CONTACT, THIS MATERIAL MAY CONTAIN POLYNUCLEAR  
AROMATIC HYDROCARBONS (PNA'S). STUDIES HAVE SHOWN THAT THE REPEATED  
PAINTING OF PNA'S ON THE SKIN OF EXPERIMENTAL ANIMALS OVER A SUSTAINED  
PERIOD OF TIME RESULTS IN THE INDUCTION OF TUMORS. INDIVIDUALS SHOULD  
AVOID SKIN CONTACT AND SHOULD WASH AFFECTED AREAS IMMEDIATELY IF CONTACT

# MATERIAL SAFETY DATA SHEET

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INC-820 EMULSION BREAKER

## 13 - SUPPLEMENT (continued)

OCCURS.

ALL ELECTRICAL EQUIPMENT IN AREAS WHERE MATERIAL IS STORED OR HANDLED SHOULD BE INSTALLED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, N.E.P.A.

NOTE -- QUALIFIERS AND CODES USED IN THIS MSDS

EQ = EQUAL	AP = APPROXIMATELY
LT = LESS THAN	GT = GREATER THAN
TR = TRACE	UK = UNKNOWN
N/AP = NOT APPLICABLE	N/P = NO APPLICABLE INFORMATION FOUND
N/DA = NO DATA AVAILABLE	CB1 = CONFIDENTIAL BUSINESS INFORMATION

## 14 - DISCLAIMERS

SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE PRODUCT ITSELF.

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

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

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

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

3370

# Hoechst Celanese

Hoechst Celanese Corporation  
Specialty Chemicals Group  
P.O. Box 1026  
Charlotte, NC 28201-1026  
Fax 704 559 6299

## Material Safety Data Sheet

THE EMERGENCY PHONE NUMBERS ARE: CHEMTREC (800) 424-9300  
HOECHST CELANESE (804) 484-5000  
FOR (NON EMERGENCY) PRODUCT INFORMATION CALL: (800) 235-2637

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### PRODUCT IDENTIFICATION

PRODUCT NAME:  
VIRTEX D CONCENTRATED SODIUM HYDROSULFITE  
SYNONYMS:  
SODIUM HYDROSULFITE  
SODIUM DITHIONITE

VERSION DATE: 01/30/91  
DATE PRINTED: 01/30/91  
MSDS NUMBER: 1101090203

### HAZARDOUS INGREDIENTS

INGREDIENT:	PERCENT:	HAZARD DATA:
SODIUM HYDROSULFITE (7775-14-6)	90%	FLAMMABLE SOLID SEE EFFECTS OF OVEREXPOSURE
SODIUM METABISULFITE (7681-57-4)	3-7%	
SODIUM THIOSULFATE (7772-98-7)	1%	
SODIUM FORMATE (141-53-7)	1%	

### PHYSICAL DATA

PHYSICAL DATA	LOW	HIGH	UNITS	COMMENT
MELTING POINT				DECOMPOSES
DENSITY	0.8	1.02	G/CC	
SOLUBILITY IN WATER	18		WT.%	AT 20 DEG C.
DECOMPOSITION TEMPERATURE	70	130	DEG.C	

APPEARANCE AND ODOR:  
WHITE POWDER, SLIGHT SULFUR DIOXIDE ODOR

### FIRE AND EXPLOSION HAZARDS

EXTINGUISHING MEDIA:  
WATER IN VERY LARGE QUANTITIES

SPECIAL PROCEDURES:  
USE SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.  
IF DECOMPOSITION IS SUSPECTED IN SEALED CONTAINER (HOT TO TOUCH OR PRESSURE DEFORMED), VENT CONTAINER BY SAFEST MEANS POSSIBLE. MOVE VENTED CONTAINER TO A SAFE OPEN AREA. EMPTY, FLOOD MATERIAL WITH WATER, CONTAIN ALL RUNOFF. SAND OR DRY CHEMICAL WILL NOT STOP DECOMPOSITION REACTIONS!

UNUSUAL HAZARDS:  
CONTACT WITH SMALL AMOUNTS OF WATER OR MOIST AIR WILL CAUSE A CHEMICAL DECOMPOSITION REACTION. HEAT GENERATED IS SUFFICIENT TO IGNITE COMBUSTIBLE MATERIAL. IF FIRE CODE REQUIRES SPRINKLERED STORAGE, PROTECT BY COVERING WITH PLASTIC SHEET. PROMPTLY REMOVE AND INSPECT CONTAINERS WHICH ARE ACCIDENTALLY WETTED (SEE PREVIOUS PARAGRAPH).

### HEALTH INFORMATION

PRIMARY ROUTE OF EXPOSURE: INHALATION: YES SKIN ABSORPTION: NO INGESTION: YES

EFFECTS OF OVEREXPOSURE:  
INHALATION: MAY CAUSE RESPIRATORY IRRITATION AND BRONCHOSPASMS. SYMPTOMS MAY INCLUDE COUGHING AND BREATHING DIFFICULTY. MAY CAUSE SEVERE RESPIRATORY DISTRESS IN ASTHMATICS. ASTHMATICS OR PERSONS WITH OTHER RESPIRATORY DISORDERS SHOULD BE EXCLUDED FROM EXPOSURE.  
SKIN CONTACT: MAY CAUSE SLIGHT IRRITATION. NECROSIS OBSERVED IN ONE SKIN IRRITATION STUDY OF LABORATORY ANIMALS (RABBITS).  
SKIN ABSORPTION: PRACTICALLY NON-TOXIC. LD50(RABBITS)>10,000 MG/KG.  
SWALLOWING: MAY CAUSE MOUTH, THROAT, ESOPHAGUS IRRITATION OR BURNS. MAY CAUSE

## Hoechst Celanese

Hoechst Celanese Corporation  
Specialty Chemicals Group  
P.O. Box 1026  
Charlotte, NC 28201-1026  
Fax 704 559 6299

### Material Safety Data Sheet

THE EMERGENCY PHONE NUMBERS ARE: CHEMTREC (800) 424-9300  
HOECHST CELANESE (804) 484-5000  
FOR (NON EMERGENCY) PRODUCT INFORMATION CALL: (800) 235-2637 PAGE 3

PRODUCT NAME: VIRTEX D CONCENTRATED SODIUM HYDROSULFITE MSDS NUMBER: 1101090203

#### -----REACTIVITY DATA----- (CONTINUED)

HAZARDOUS DECOMPOSITION PRODUCTS:  
A MAJOR DECOMPOSITION PRODUCT IS SULFUR DIOXIDE; HOWEVER, DURING CATASTROPHIC DECOMPOSITION OTHER SULFUR CONTAINING DECOMPOSITION PRODUCTS SUCH AS HYDROGEN SULFIDE AND MERCAPTANS MAY BE PRESENT.

#### -----SPILL OR LEAK PROCEDURES/WASTE DISPOSAL-----

SPILL OR LEAK PROCEDURES:  
CONTAIN TO MINIMIZE CONTAMINATED AREA. RECOVER AS A DRY MATERIAL. DISCARDED UNREACTED MATERIAL IS A HAZARDOUS WASTE BECAUSE OF REACTIVITY WITH MOISTURE. KEEP OUT OF GROUND AND SURFACE WATERS.  
HAZARDOUS SUBSTANCE SUPERFUND: NO RQ(LBS): 100 LBS  
HAZARDOUS WASTE 40CFR261: YES HAZ. WASTE NO.: D-003

WASTE DISPOSAL:  
DISPOSE OF SOLID MATERIAL IN A HAZARDOUS WASTE TREATMENT FACILITY IN COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. DISPOSE OF WATER SOLUTIONS OF THE MATERIAL IN INDUSTRIAL WASTEWATER TREATMENT SYSTEM OR OTHERWISE AS ALLOWED BY LOCAL, STATE OR FEDERAL REGULATIONS.

#### -----EMPLOYEE PROTECTION-----

RESPIRATORY PROTECTION:  
USE NIOSH/MSHA APPROVED RESPIRATOR WITH ACID GAS CARTRIDGE AND DUST PREFILTER. FOR CONCENTRATIONS OVER 10 TIMES THE RECOMMENDED EXPOSURE LIMIT, AS WELL AS FOR FIREFIGHTING AND OTHER EMERGENCIES, USE POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS.

PROTECTIVE CLOTHING:  
WORK CLOTHING TO COVER EXPOSED AREAS.  
CHEMICAL GOGGLES.  
WEAR NEOPRENE OR OTHER IMPERMEABLE GLOVES WHEN SKIN CONTACT IS LIKELY.  
CONTACT LENSES SHOULD NOT BE WORN WHEN WORKING WITH THIS CHEMICAL.

ADDITIONAL PROTECTIVE MEASURES:  
USE LOCAL EXHAUST TO CONTROL DUST WITHIN THE RECOMMENDED LIMITS.  
EYE WASH AND/OR SAFETY SHOWER.

#### -----SPECIAL PRECAUTIONS-----

KEEP STORED MATERIAL DRY AND AT TEMPERATURES BELOW 50 DEG. C. DO NOT STORE CONTAINERS OPEN TO THE AIR. KEEP THE CONTAINER TIGHTLY COVERED WHEN MATERIAL IS NOT IN USE. SEPARATE CONTAINERS FROM OXIDIZERS, ACIDS AND FLAMMABLE MATERIALS. AVOID SOURCES OF HEAT OR FLAME.  
IF THE CONTAINER WALL FEELS HOT OR IF THE CONTAINER BEGINS SMOKING, REMOVE THE CONTAINER TO AN OPEN AREA, REMOVE MATERIAL, FLOOD WITH WATER, CONTAIN RUN-OFF. REMOVE DAMAGED OR PUNCTURED CONTAINERS FROM STORAGE, SECURE ANY LEAKS AND USE PRODUCT IMMEDIATELY OR SECURE LEAKS, OBSERVE CONTAINER FOR SIGNS OF PRODUCT DECOMPOSITION (CONTAINER WARM TO TOUCH).  
IF STORED IN A FIRE SPRINKLER PROTECTED AREA, COVER CONTAINER WITH PLASTIC SHEETING TO PREVENT WETTING IF SPRINKLERS ACTIVATE.

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PRODUCT NAME:  
VIRTEX D CONCENTRATED SODIUM HYDROSULFITE

MSDS NUMBER: 1140203

-----OTHER REGULATORY CONTROLS

OTHER REGULATORY CONTROLS:  
SARA SECTION 302 (EXTREMELY HAZARDOUS SUBSTANCE) LIST/  
SECTION 304 (CERCLA):  
SARA SECTION 313 (TOXIC CHEMICAL) LIST:  
ISCA INVENTORY STATUS:

NO  
NO  
ALL THE SUBSTANCE,  
LISTED IN SECTION  
III ARE ON THE TSCA  
INVENTORY.

INTERNATIONAL MARITIME ORGANIZATION: IMO SHIPPING NAME: SODIUM DITHIONITE  
UN NUMBER: 1384 CLASS: 4.2, SPONTANEOUSLY COMBUSTIBLE  
IMDG CODE PAGE: 4122

OSHA PHYSICAL HAZARDS:  
WATER REACTIVE

OSHA HEALTH HAZARDS:  
EYE HAZARD  
IRRITANT  
SENSITIZER

HAZARD COMMUNICATION LABEL: P00.0

SARA HAZARD CLASS:  
ACUTE: YES CHRONIC: NO FIRE HAZARD: YES PRESSURE: NO REACTIVITY: YES

**CHACO CHEMICAL COMPANY**  
**EMERGENCY RESPONSE PROCEDURE**

Chaco Chemical Company must immediately notify the local emergency response commissions likely to be affected if there is a release of a listed hazardous substance that exceeds the reportable quantity for that substance. Substances subject to this requirement are the list of 366 extremely hazardous substances as published in Federal Register (40 CFR 355) and substances subject to the emergency notification requirements under CERCLA Section 103(a) (40 CFR 302.4).

Chaco Chemical Company also will provide a follow-up emergency notice after the release, as mandated in Section 304.

Chaco Chemical Company requires all emergency equipment is adequately maintained. Assured by an agreement with a fully integrated oilfield construction service company.

Chaco Chemical Company disposes of all hazardous materials in an safe and appropriate manner.

The following procedure is to be followed by Chaco Chemical Company in response to a potential chemical accident;

Initial notification of a chemical accident may be made by telephone, radio or in person. Emergency notification requirements involving transportation incidents can be met by dialing 911, or in the absence of a 911 emergency number, calling the operator.

Emergency notification must include the following:

1. The chemical name.
2. An indication of whether the substance is extremely hazardous. Check each of the following lists:

List of Extremely Hazardous Substances (366 Substances)  
(40 CRT 355)

Substances requiring notification under Section 103(a) of CERCLA [717 substances] (40 CFR 302.4)

Hazardous Chemicals considered physical or health hazards under Aces Hazard Communication Standard (29 CFR 1910, 1200)

Material Safety Data Sheets



3. An estimate of the quantity of substance released into the environment.
4. The time and duration of the release.
5. Whether the release occurred into air, water and/or land.
6. Any known or anticipated acute or chronic health risks associated with the emergency and necessary advice on medical attention for exposed individuals.
7. Proper precautions including evacuation.
8. Name and telephone number of contact person.

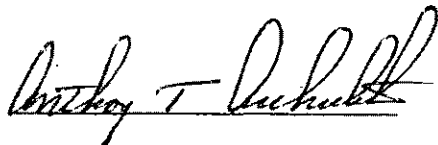
Follow-up notice or notices must include:

1. Update of information included in the initial notice.
2. Provide information on:

The actual response actions taken.

Advice regarding medical attention necessary for exposed individuals.

Reviewed By:



Anthony T. Archuleta  
Chaco Chemical Company

Date:

7/4/95

Received By: \_\_\_\_\_

Date: \_\_\_\_\_

Date:

Subject: Spill Prevention Plan - Chemical Bulk Tanks

From/Location: A.T. ARCHULETA

To/Location: CHACO CHEMICAL EMPLOYEES

In case of a chemical spill or leak in your bulk storage tanks, you should put sand on the chemical to dry it up and then call a commercial company that is licensed to dispose of hazardous waste materials to pick up and dispose of the remains.

This plan should be kept in an office that is closest to the bulk tanks and readily accessible to all.

  
J. M. Wagner  
Registered Professional Engineer

SPILL PREVENTION PLAN- WAREHOUSE

Date

Subject

From/Location

To/Location

In case of a chemical leak or spill in your warehouse, you should put Absorb-all on the chemical to dry it up and then call a commercial company that is licensed to dispose of hazardous waste material to pick up and dispose of the remains. Should there be no commercial hazardous waste disposal available, the remains are to be shipped to Sand Springs for disposal.

MSD sheets are to be readily available in the warehouse on all products in the warehouse at all times.

This plan will hang in the warehouse in a place accessible to everyone.

  
J.M. Wagner  
Registered Professional Engineer



# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**

Governor  
Joanna Pruckop  
Cabinet Secretary  
Reese Fullerton  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



January 30, 2009

Certified Mail  
7002 0510000351252089

Dear Mr. Anthony Wiggins  
P.O. Box 3526  
Farmington, N.M. 87499

**IMMEDIATE ATTENTION REQUIRED- DEADLINE ENCLOSED**

**RE: New Discharge Permit, GW-348  
Chaco Chemical Company  
CR 5759 # 20 Farmington  
San Juan County, New Mexico**

The New Mexico Oil Conservation Division (NMOCD) has received Chaco Chemical Company's application and initial fee, dated January 16, 2009 for a new discharge plan permit for their Oil and Gas Service Company located in unit letter M of Section 20, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The initial submittal did not provide the required information and therefore the OCD has declared your application to be "administratively" incomplete.

The OCD is requesting the following information, per subsection F of 20.6.2.3108 NMAC:

- (1) a brief description of the activities that produce the discharge described in the application
- (2) a brief description of the expected quality and volume of the discharge
- (3) the depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge. *Your submittal identified the depth to groundwater to be 7 feet bgs. Please submit the TDS level of the identified groundwater.*

Under the WQCC, an applicant for a new discharge plan permit is required to provide public notice. I have enclosed the relevant WQCC rules and regulations to provide direction for this task. The notice process is accomplished through a series of stages. I have attached a flow chart of this process and an example of an applicant public notice for clarification. Please review the materials I have enclosed and submit the public notice for our review. Once approved the notice shall be used for all other additional postings as indicated by the WQCC rules and regulations.

**Please submit the above stated information within 15 days of receipt of this letter.** If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3492 or e-mail

NM-OCD 2009-01

EXHIBIT N

Oil Conservation Division \* 1220 South St. Francis Drive  
\* Santa Fe, New Mexico 87505

\* Phone: (505) 476-3440 \* Fax (505) 476-3462 \* <http://www.emnrd.state.nm.us>

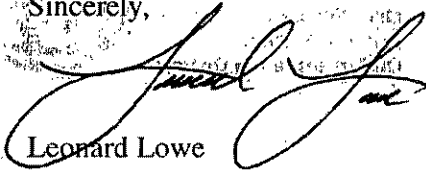


January 30, 2009

Page 2

leonard.lowe@state.nm.us. On behalf of the staff of the NMOCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,



Leonard Lowe  
Environmental Engineer

LRL/lrl

xc: Brandon Powell, Environmental Specialist, OCD Aztec District III  
Charlie Perrin, Supervisor, OCD Aztec District III  
Mikal Altamore, Assistant General Counsel, Santa Fe  
Daniel Sanchez, Enforcement and Compliance Manager, Santa Fe

ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH

I hereby acknowledge receipt of check No. 4552 dated 1/16/09

or cash received on \_\_\_\_\_ in the amount of \$ 100.00

from CHACO Chemical Co LLC

for GW-348

Submitted by: LAWRENCE ROMERO Date: 1/26/09

Submitted to ASD by: Laurum Romero Date: 1/26/09

Received in ASD by: \_\_\_\_\_ Date: \_\_\_\_\_

Filing Fee ☒ New Facility \_\_\_\_\_ Renewal \_\_\_\_\_

Modification \_\_\_\_\_ Other \_\_\_\_\_

Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund.

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

*C.W. GW-348*

CHACO CHEMICAL ~~CO LLC~~ *LLC* 95-32/10701 4552  
CHRISTINE OR PAUL WIGGINS  
205 E. ELM STREET 505-326-3050  
P.O. BOX 3526  
FARMINGTON, NM 87499

Date 1-16-09

Pay to the Order of Oil Conservation Division \$ 100.00  
One hundred dollar & no cents Dollars

BANK OF AMERICA, N.A.

For Christine Wiggins

⑆107000327⑆ 004271177687⑈ 4552

Diamond Plate #2203 © 2003 The Styles Check Company™ 1-800-956-0353 www.styleschecks.com

Chaco Chemical Company received their Administrative Incomplete letter on  
February 3, 2009.

In 15 days

A response is needed at the OCD office on  
February 18, 2009

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"><li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li><li>■ Print your name and address on the reverse so that we can return the card to you.</li><li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li></ul>		<p>A. Signature X <i>Christine Wiggins</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery <i>CAROLINE WIGGINS</i> <i>2-3-09</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p>	
1. Article Addressed to:  Mr. Anthony Wiggins Post Office Box 3526 Farmington, NM 87499		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
2. Article Number (Transfer from service label)		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
		7002 0510 0003 5125 2089	

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1035

NM-OCD 2009-01  
EXHIBIT O