



INSPECTION MEMORANDUM

DIVISION OF ENVIRONMENTAL PROTECTION

West Virginia Office of Air Quality

Company:	Etowah River Terminal (formerly Pennzoil-Quaker State Company) 1015 Barlow Drive Charleston, WV 25311		Facility:	Charleston	
Region:	4	Plant ID#:	039-00035	Regulations:	21

Inspected By: Robert L. Keatley

Title: Engineer

Memo Date: 06/16/2005

Inspection Date: 05/03/2005

On April 19, 2005 and May 3, 2005, I conducted an unannounced compliance inspection of the Etowah River Terminal (formerly Pennzoil-Quaker State Company) facility located at Charleston, WV. The contact person at the facility was John L. Hutchinson, Terminal Manager. Mr. Hutchinson was not available on April 19, 2005 and a Mr. Terry Cline, CFO Freedom Industries, was not familiar with the bulk terminal portion of the facility. So, on May 3, 2004 I returned and conducted the inspection with Mr. Hutchinson. The facility is no longer a Bulk Gasoline Terminal and removed all remaining petroleum products (gasoline, diesel, etc.) from the storage tanks at the end of July 2001. The facility stores chemicals for the mining industry such as: CaCl₂ (chemical used to treat haul roads), flocculent agent (chemical used to change the specific gravity), and several different concentrations of glycols. The facility generally has more business from the middle of November to the middle of March, during this time the facility averages 25 trucks per day and operates two shifts. The facility no longer operates the flare to unload trucks, because the chemicals stored are not very flammable. The facility submitted information concerning changing the facility from a bulk gasoline terminal into a chemical storage facility. This information indicated the facility did not need to obtain a permit and it is contained in the file. If the facility changes any of the chemicals stored in the storage tanks or changes the process, then the DAQ needs to reevaluate whether the facility needs a permit.

The facility currently has several active 420,000 gallon storage tanks: five (5) with 10-50% glycol, three (3) with 28-35% CaCl₂, and one water tank. The facility has two active 47,000 gallon storage tanks with a specialty chemical ammonium lignosulfonate and one 47,000 gallon tank empty. Mr. Hutchinson stated the facility rarely sells any of this specialty chemical and it has been store to more than two years. I have attached the MSDS's for these chemicals to this report. The facility receives CaCl₂ by barge and the other chemicals by truck. The facility does do some minor mixing to obtain the specific concentration of glycol or CaCl₂ needed. These two chemicals are the facility's primary products.

No violations were found. Status Code 30 - "Facility In Compliance". The facility did not officially change it's name with the DAQ, but Mr. Hutchinson stated he would take care of the problem immediately. I gave Mr. Hutchinson Stephanie Hammonds name and number to obtain the proper paperwork.



Robert L. Keatley
Engineer

6/16/05
Date

Photographs Taken:	No	ITS Updated:	Yes
Visual Emissions Taken:	No	Facility Status Code:	30

Inspection of Etowah River Terminal
Inspected on 05/03/2005
Page 1

NON-CONFIDENTIAL

Product Name: Calcium Chloride 35%

Preparation date: 4/6/00

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Calcium Chloride 35% MSDS REVISION #: New
SYNONYMS: None
DISTRIBUTED BY: Freedom Industries, Inc.
P.O. Box 2181
Charleston, WV 25328
PHONE NUMBER: (304) 344-3997

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>%</u>	<u>CAS No.</u>	<u>Exposure Limits</u>
Calcium chloride	---	10043-52-4	Not established
Water	---	7732-18-5	Not established

SECTION 3 - HAZARDS IDENTIFICATION

***** **EMERGENCY OVERVIEW** *****

Product is a clear, colorless, odorless liquid. The material can cause skin and eye irritation. Avoid contact with skin, eyes and clothing. Wear protective goggles and gloves and impervious clothing when handling this product. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS

EYES:

Can cause irritation, which may be severe.

SKIN:

Prolonged or repeated contact may cause irritation. Persons with pre-existing skin conditions are particularly susceptible.

Section 3 continued on next page

Product Name: **Calcium Chloride 35%**

Preparation date: 4/6/00

SECTION 3 - HAZARDS IDENTIFICATION (continued)

INGESTION (swallowing):

Causes irritation. May cause nausea, vomiting and diarrhea.

INHALATION (breathing):

Spray or mist can cause irritation to the nose, throat and lungs.

CHRONIC EFFECTS/CARCINOGENICITY:

This product (or component) is not listed in IARC Monographs, the NTP Seventh Annual Report or the current ACGIH TLVs as a carcinogen or potential carcinogen. OSHA does not regulate it as a carcinogen.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT:

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

SKIN CONTACT:

Immediately wash exposed area with soap and water.

INGESTION (swallowing):

Immediately drink two large glasses of water. Induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

INHALATION (breathing):

If affected, move to fresh air.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: >212° F (100° C)

FLASH POINT METHOD: PMCC

UPPER EXPLOSION LIMIT: Unavailable

LOWER EXPLOSION LIMIT: Unavailable

AUTOIGNITION TEMPERATURE: Unavailable

SENSITIVITY/SPARKS: Unknown

SENSITIVITY/STATIC ELECTRICITY: Unknown

Section 5 continued on next page

Product Name: **Calcium Chloride 35%**

Preparation date: 4/6/00

SECTION 5 - FIRE FIGHTING MEASURES (continued)

EXTINGUISHING MEDIA:

Dry chemical, water fog, and regular foam

FIRE AND EXPLOSION HAZARDS:

None known. Product contains a large amount of water, and would not normally burn.

FIRE-FIGHTING EQUIPMENT:

Keep personnel removed from and upwind. Wear full protective clothing and self-contained breathing apparatus with full face-piece. Cool containers with water. Combustion products include carbon monoxide and carbon dioxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Persons not wearing protective equipment should be excluded from the area of the spill until clean up has been completed. Dike area of spill to prevent spreading and pump liquid to salvage tank. Absorb remaining liquid on vermiculite, floor absorbent or other absorbent material and shovel into containers.

SECTION 7 - HANDLING AND STORAGE

HANDLING:

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:

Keep in closed or covered containers when not in use. Store in cool dry place with adequate ventilation.

Product Name: **Calcium Chloride 35%**

Preparation date: 4/6/00

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

Not required under normal conditions of use.

SKIN PROTECTION:

Wear protective gloves such as Neoprene or BUNA-N.

EYE PROTECTION:

Chemical splash goggles in compliance with OSHA regulations are advised.

OTHER PROTECTION:

Impervious clothing and boots are recommended.

ENGINEERING CONTROLS:

Provide sufficient ventilation to maintain exposure below level of overexposure.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colorless liquid @ 68° F (20° C)
ODOR:	None
SPECIFIC GRAVITY:	Unavailable
VAPOR PRESSURE (mm Hg):	17.5 @ 68° F (20° C)
VAPOR DENSITY (Air = 1):	Lighter than air
INITIAL BOILING POINT:	212° F (100° C)
EVAPORATION RATE:	<1
(Ethyl Ether = 1)	
SOLUBILITY in WATER:	100%
VOLATILE %:	More than 60%
pH:	Unavailable
pH METHOD:	Unavailable

Product Name: **Calcium Chloride 35%**

Preparation date: 4/6/00

SECTION 10 - STABILITY AND REACTIVITY

STABILITY (conditions to avoid):

Stable under normal conditions.

INCOMPATIBILITIES (materials to avoid):

Avoid contact with strong bases.

DECOMPOSITION:

Not available.

HAZARDOUS POLYMERIZATION:

Can not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

No data available.

SECTION 12 - ECOLOGICAL INFORMATION

No data available

SECTION 13 - DISPOSAL CONSIDERATIONS

Incineration is the recommended disposal method for all chemical wastes. Material collected on absorbent material may be deposited in a landfill in accordance with all applicable local, state and federal regulations.

This product, if disposed of, is not considered a hazardous waste under current RCRA definitions.

SECTION 14 - TRANSPORT INFORMATION

Not regulated under current DOT, IMO, or ICAO regulations.

Product Name: **Calcium Chloride 35%**

Preparation date: 4/6/00

SECTION 15 - REGULATORY INFORMATION

TSCA INFORMATION:

All components in this product are in compliance with TSCA Inventory requirements.

SARA 313 INFORMATION:

SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This information must be included in all MSDS that are copied and distributed for this material.

Components present in this product at a level that could require reporting under the statute are: None

SECTION 16 - OTHER INFORMATION

HAZARD RATING:

HEALTH	2	0 - LEAST
FIRE	0	1 - SLIGHT
REACTIVITY	0	2 - MODERATE
OTHER	-	3 - HIGH
		4 - EXTREME

HAZARD RATING METHOD: HMIS

REASON FOR REVISION:

New

The product information contained herein is believed to be accurate as of the date of the Material Safety Data Sheet, and is provided without warranty, expressed or implied, as to the results of use of this information or the product to which it relates. Recipient assumes all responsibility for the use of this information and the use (alone or in combination with any other product), storage or disposal of the product, including any resultant personal injury or property damage.

****END OF REPORT****

Product Name: **FCA-1000**

Preparation date: 10/18/00

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCA-1000 *CaCl₂* MSDS REVISION #: 001
SYNONYMS: None
DISTRIBUTED BY: Freedom Industries, Inc.
P.O. Box 2181
Charleston, WV 25328
PHONE NUMBER: (304) 344-3997

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>%</u>	<u>CAS No.</u>	<u>Exposure Limits</u>
Calcium chloride	---	10043-52-4	Not established
Water	---	7732-18-5	Not established

SECTION 3 - HAZARDS IDENTIFICATION

***** **EMERGENCY OVERVIEW** *****

Product is a clear, colorless to amber-colored liquid. The material can cause skin and eye irritation. Avoid contact with skin, eyes and clothing. Wear protective goggles and gloves and impervious clothing when handling this product. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS

EYES:
Can cause irritation, which may be severe.

SKIN:
Prolonged or repeated contact may cause irritation. Persons with pre-existing skin conditions are particularly susceptible.

Section 3 continued on next page

Product Name: **FCA-1000**

Preparation date: 10/18/00

SECTION 3 - HAZARDS IDENTIFICATION (continued)

INGESTION (swallowing):

Causes irritation. May cause nausea, vomiting and diarrhea.

INHALATION (breathing):

Spray or mist can cause irritation to the nose, throat and lungs.

CHRONIC EFFECTS/CARCINOGENICITY:

This product (or component) is not listed in IARC Monographs, the NTP Eighth Annual Report or the current ACGIH TLVs as a carcinogen or potential carcinogen. OSHA does not regulate it as a carcinogen.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT:

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

SKIN CONTACT:

Immediately wash exposed area with soap and water.

INGESTION (swallowing):

Immediately drink two large glasses of water. Induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

INHALATION (breathing):

If affected, move to fresh air.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: >212° F (100° C)

FLASH POINT METHOD: PMCC

UPPER EXPLOSION LIMIT:

Unavailable

LOWER EXPLOSION LIMIT:

Unavailable

AUTOIGNITION TEMPERATURE:

Unavailable

SENSITIVITY/SPARKS:

Unknown

SENSITIVITY/STATIC ELECTRICITY:

Unknown

Section 5 continued on next page

Product Name: **FCA-1000**

Preparation date: 10/18/00

SECTION 5 - FIRE FIGHTING MEASURES (continued)

EXTINGUISHING MEDIA:

Dry chemical, water fog, and regular foam

FIRE AND EXPLOSION HAZARDS:

None known. Product contains a large amount of water, and would not normally burn.

FIRE-FIGHTING EQUIPMENT:

Keep personnel removed from and upwind. Wear full protective clothing and self-contained breathing apparatus with full face-piece. Cool containers with water. Combustion products include carbon monoxide and carbon dioxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Persons not wearing protective equipment should be excluded from the area of the spill until clean up has been completed. Dike area of spill to prevent spreading and pump liquid to salvage tank. Absorb remaining liquid on vermiculite, floor absorbent or other absorbent material and shovel into containers.

SECTION 7 - HANDLING AND STORAGE

HANDLING:

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:

Keep in closed or covered containers when not in use. Store in cool dry place with adequate ventilation.

Product Name: **FCA-1000**

Preparation date: 10/18/00

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

Not required under normal conditions of use.

SKIN PROTECTION:

Wear protective gloves such as Neoprene or BUNA-N.

EYE PROTECTION:

Chemical splash goggles in compliance with OSHA regulations are advised.

OTHER PROTECTION:

Impervious clothing and boots are recommended.

ENGINEERING CONTROLS:

Provide sufficient ventilation to maintain exposure below level of overexposure.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colorless to amber-colored liquid @ 68° F (20° C)
ODOR:	Low
SPECIFIC GRAVITY:	1.25-1.27
VAPOR PRESSURE (mm Hg):	17.5 @ 68° F (20° C)
VAPOR DENSITY (Air = 1):	Lighter than air
INITIAL BOILING POINT:	212° F (100° C)
EVAPORATION RATE:	<1
(Ethyl Ether = 1)	
SOLUBILITY in WATER:	100%
VOLATILE %:	More than 70%
pH:	Unavailable
pH METHOD:	Unavailable

Product Name: **FCA-1000**

Preparation date: 10/18/00

SECTION 10 - STABILITY AND REACTIVITY

STABILITY (conditions to avoid):
Stable under normal conditions.

INCOMPATIBILITIES (materials to avoid):
Avoid contact with strong bases.

DECOMPOSITION:
Not available.

HAZARDOUS POLYMERIZATION:
Can not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

No data available.

SECTION 12 - ECOLOGICAL INFORMATION

No data available

SECTION 13 - DISPOSAL CONSIDERATIONS

Incineration is the recommended disposal method for all chemical wastes. Material collected on absorbent material may be deposited in a landfill in accordance with all applicable local, state and federal regulations.

This product, if disposed of, is not considered a hazardous waste under current RCRA definitions.

SECTION 14 - TRANSPORT INFORMATION

Not regulated under current DOT, IMO, or ICAO regulations.

Product Name: **FCA-1000**

Preparation date: 10/18/00

SECTION 15 - REGULATORY INFORMATION
--

TSCA INFORMATION:

All components in this product are in compliance with TSCA Inventory requirements.

SARA 313 INFORMATION:

SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This information must be included in all MSDS that are copied and distributed for this material.

Components present in this product at a level that could require reporting under the statute are: None

SECTION 16 - OTHER INFORMATION

HAZARD RATING:

HEALTH	1	0 - LEAST
FIRE	0	1 - SLIGHT
REACTIVITY	0	2 - MODERATE
OTHER	-	3 - HIGH
		4 - EXTREME

HAZARD RATING METHOD: NFPA

REASON FOR REVISION:

Added/revised physical data (Section 9); changed hazard rating to NFPA (Section 16); and made minor editorial changes.

The product information contained herein is believed to be accurate as of the date of the Material Safety Data Sheet, and is provided without warranty, expressed or implied, as to the results of use of this information or the product to which it relates. Recipient assumes all responsibility for the use of this information and the use (alone or in combination with any other product), storage or disposal of the product, including any resultant personal injury or property damage.

****END OF REPORT****

**FREEDOM INDUSTRIES, INC.
MATERIAL SAFETY DATA SHEET**

finished product - Not on bags

Page 1 of 6

Product Name: FCA-2000

Preparation date: 10/18/00

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCA-2000 *GLYCOL* MSDS REVISION #: 001
 SYNONYMS: None
 DISTRIBUTED BY: Freedom Industries, Inc.
 P.O. Box 2181
 Charleston, WV 25328
 PHONE NUMBER: (304) 344-3997

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	%	CAS No.	Exposure Limits
Blended glycols	--	Mixture	Not established
Water	--	7732-18-6	Not established

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Product is an amber-colored liquid. The material may cause mild skin and eye irritation. Harmful or fatal if swallowed. Avoid contact with skin, eyes and clothing. Wear protective goggles and gloves and impervious clothing when handling this product. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS

EYES:

Can cause mild irritation.

Section 3 continued on next page

**FREEDOM INDUSTRIES, INC.
MATERIAL SAFETY DATA SHEET**

Page 2 of 6

Product Name: FCA-2000

Preparation date: 10/18/00

SECTION 3 - HAZARDS IDENTIFICATION (continued)

SKIN:

Prolonged or repeated contact may cause mild irritation. Persons with pre-existing skin conditions are particularly susceptible.

INGESTION (swallowing):

Causes mild irritation, nausea, vomiting and diarrhea. May cause central nervous system depression, kidney and liver damage. Persons with pre-existing kidney or liver conditions are particularly susceptible.

INHALATION (breathing):

Spray or mist can cause irritation to the nose, throat and lungs.

CHRONIC EFFECTS/CARCINOGENICITY:

This product (or component) is not listed in IARC Monographs, the NTP Eighth Annual Report or the ACGIH TLVs as a carcinogen or potential carcinogen. OSHA does not regulate it as a carcinogen.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT:

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

SKIN CONTACT:

Immediately wash exposed area with soap and water.

INGESTION (swallowing):

If victim is conscious, give two large glasses of water and induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

INHALATION (breathing):

If affected, move to fresh air.

**FREEDOM INDUSTRIES, INC.
MATERIAL SAFETY DATA SHEET**

Page 3 of 6

Product Name: FCA-2000

Preparation date: 10/18/00

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: >212° F (100° C)

FLASH POINT METHOD: PMCC

UPPER EXPLOSION LIMIT:

Unavailable

LOWER EXPLOSION LIMIT:

Unavailable

AUTOIGNITION TEMPERATURE:

Unavailable

SENSITIVITY/SPARKS:

Unknown

SENSITIVITY/STATIC ELECTRICITY:

Unknown

EXTINGUISHING MEDIA:

Dry chemical, water fog, and alcohol foam

FIRE AND EXPLOSION HAZARDS:

None known. Product contains a large amount of water, and would not normally burn.

FIRE-FIGHTING EQUIPMENT:

Keep personnel removed from and upwind. Wear full protective clothing and self-contained breathing apparatus with full face-piece. Cool containers with water. Combustion products include carbon monoxide and carbon dioxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Persons not wearing protective equipment should be excluded from the area of the spill until clean up has been completed. Dike area of spill to prevent spreading and pump liquid to salvage tank. Absorb remaining liquid on vermiculite, floor absorbent or other absorbent material and shovel into containers.

SECTION 7 - HANDLING AND STORAGE

HANDLING:

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:

Keep in closed or covered containers when not in use. Store in cool dry place with adequate ventilation.

FREEDOM INDUSTRIES, INC.
MATERIAL SAFETY DATA SHEET

Page 4 of 6

Product Name: FCA-2000

Preparation date: 10/18/00

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

Not required under normal conditions of use; however, a NIOSH/MSHA approved respirator with organic vapor cartridge is recommended where there is insufficient ventilation.

SKIN PROTECTION:

Wear protective gloves such as Neoprene or BUNA-N.

EYE PROTECTION:

Chemical splash goggles in compliance with OSHA regulations are advised.

OTHER PROTECTION:

Impervious clothing and boots are recommended.

ENGINEERING CONTROLS:

Provide sufficient ventilation to maintain exposure below level of overexposure.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Amber-colored liquid @ 68° F (20° C)
ODOR:	Low
SPECIFIC GRAVITY:	1.04-1.07 @ 77° F (25° C)
VAPOR PRESSURE (mm Hg):	17.5 @ 68° F (20° C)
VAPOR DENSITY (Air = 1):	Lighter than air
INITIAL BOILING POINT:	212° F (100° C)
EVAPORATION RATE:	<1
(Ethyl Ether = 1)	
SOLUBILITY in WATER:	100%
VOLATILE %:	50%
pH:	Unavailable
PH METHOD:	Unavailable

**FREEDOM INDUSTRIES, INC.
MATERIAL SAFETY DATA SHEET**

Page 5 of 6

Product Name: FCA-2000

Preparation date: 10/18/00

SECTION 10 - STABILITY AND REACTIVITY

STABILITY (conditions to avoid):

Stable under normal conditions.

INCOMPATIBILITIES (materials to avoid):

Avoid contact with strong oxidizing agents and sodium hydroxide.

DECOMPOSITION:

Carbon dioxide, carbon monoxide, acrid smoke and fumes

HAZARDOUS POLYMERIZATION:

Can not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

No data available.

SECTION 12 - ECOLOGICAL INFORMATION

No data available

SECTION 13 - DISPOSAL CONSIDERATIONS

Incineration is the recommended disposal method for all chemical wastes. Material collected on absorbent material may be deposited in a landfill in accordance with all applicable local, state and federal regulations.

This product, if disposed of, is not considered a hazardous waste under current RCRA definitions.

SECTION 14 - TRANSPORT INFORMATION

Not regulated under current DOT, IMO, or ICAO regulations.

**FREEDOM INDUSTRIES, INC.
MATERIAL SAFETY DATA SHEET**

Page 6 of 6

Product Name: FCA-2000

Preparation date: 10/18/00

SECTION 15 - REGULATORY INFORMATION

TSCA INFORMATION:

All components in this product are in compliance with TSCA Inventory requirements.

SARA 313 INFORMATION:

SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This information must be included in all MSDS that are copied and distributed for this material.

Components present in this product at a level that could require reporting under the statute are: None

SECTION 16 - OTHER INFORMATION

HAZARD RATING:

HEALTH	1	0 - LEAST
FIRE	0	1 - SLIGHT
REACTIVITY	0	2 - MODERATE
OTHER	-	3 - HIGH
		4 - EXTREME

HAZARD RATING METHOD: NFPA

REASON FOR REVISION:

Added/revised physical data (Section 9); changed hazard rating to NFPA (Section 16); and made minor editorial changes.

The product information contained herein is believed to be accurate as of the date of the Material Safety Data Sheet, and is provided without warranty, expressed or implied, as to the results of use of this information or the product to which it relates. Recipient assumes all responsibility for the use of this information and the use (alone or in combination with any other product), storage or disposal of the product, including any resultant personal injury or property damage.

****END OF REPORT****

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification				
Common name Recycled Propylene Glycol 20%	Code	5072		
	MSDS#	Not Available		
	Validation Date	1/3/03		
Supplier Edgewater Systems Hamilton International Airport Mount Hope, ON LOR 1W0	Print Date	1/3/03		
	<u>In case of Emergency</u>	TRANSPORTATION EMERGENCY: CHEM-TEL, INC. 1-800-255-3924		
Synonym	Not Available			
Trade Name	Propylene Glycol			
Material Uses	Not Available			
Manufacturer Edgewater Systems Hamilton International Airport Suite 320 Mount Hope, ON LOR 1W0				
Section 2. Composition and Information on Ingredients				
Name	CAS#	% by Weight	TLV/PEL	LC ₅₀ /LD ₅₀
1,2, Propandiol	107-98-2	20%		33.7
Section 3. Hazards Identification				
Emergency Overview	CAUTION! MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.			
Routes of Entry	Eye contact. Ingestion			
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of skin contact (permeator), of ingestion, of inhalation. Non-sensitizer for skin.			
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not Available MUTAGENIC EFFECTS: Not Available TERATOGENIC EFFECTS: Not Available Developmental Toxicity: Not Available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate medical condition.			
Section 4. First Aid Measures				
Eye Contact	Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes,, keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Seek medical attention.			
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.			
Hazardous Skin Contact	Wash with a disinfectant soap and cover contaminated skin with an anti-bacterial cream. Seek medical attention.			
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.			
Hazardous Inhalation	No additional information.			
Ingestion	DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingestion; the absence of such signs, however, is not conclusive. Loosen tight clothing such as collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.			

Hazardous Ingestion	No additional information.		
Section 5. Fire and Explosion Data			
Flammability of the Product			
Auto-Ignition Temperature	The lowest known value is 371°C (699.8°F) (1,2-Propylene glycol)		
Flash Points	The lowest known value is OPEN CUP: 210°C (410°F). (Cleveland) (1,2-propylene glycol)		
Flammable Limits	The greatest known range is LOWER: 2.6% UPPER: 12.5% (1,2-Propylene glycol)		
Products of Combustion	These products are carbon oxides (CO, CO ₂).		
Fire Hazards in Presence of Various Substances	Slightly flammable in presence of open flames and sparks, of heat. Non-flammable in presence of oxidizing materials, of reducing materials, of combustible materials.		
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in the presence of mechanical impact: Not Available. Risks of explosion of the product in the presence of static discharge: Not Available. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemicals, CO ₂ , water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.		
Special Remarks on Fire Hazards	When heated to decomposition, it emits acrid smoke and irritating fumes. (1,2-Propylene glycol)		
Special Remarks on Explosion Hazards	No additional remark.		
Section 6. Accidental Release Measures			
Small Spill	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.		
Large Spill	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.		
Section 7. Handling and Storage			
Handling	Not Available.		
Storage	Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.		
Section 8. Exposure Controls/Personal Protection			
Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work station location.		
Personal Protection	Safety glasses. Lab coat. Gloves (Impervious).		
Personal Protection in Case of large Spill	Splash goggles. Full Suit. Boots. Gloves. Suggested protective clothing might not be sufficient: consult a specialist BEFORE handling this product.		
Section 9. Physical and Chemical Properties			
Physical State and Appearance	Liquid.	Odor	Not Available
Molecular Weight	Not Available	Taste	Not Available
pH (1% soln/water)	Neutral	Color	Light orange
Boiling Point	The lowest known value is 100° C (212° F)		
Melting Point	May start to solidify at 0° C (32° F) based on data for: Water. Weighted average: 8.65 mm of Hg (@20° C)		
Critical Temperature	N/A		
Specific Gravity	Weighted average: 1.02 (Water = 1)		

Vapor Pressure	The highest known value is 17.2 mm of Hg (@ 20° C)(Water). Weighted average: 8.65 mm of Hg (@ 20° C).
Vapor Density	The highest known value is 2.62 (Air = 1) (1,2-Propylene glycol).Weighted average:1.81 (Air = 1).
Volatility	Not Available.
Odor Threshold	Not Available.
Evaporation Rate	Not Available.
Viscosity	Not Available.
Water/Oil Dist. Coeff.	The product is much more soluble in water.
Ionicity (In Water)	Not Available.
Dispersion Properties	See solubility in water, methanol.
Solubility	Easily soluble in cold water, hot water, methanol. Insoluble in diethyl ether, n-octanol.
Physical Chemical Comments	Not Available.
Section 10. Stability and Reactivity Data	
Chemical Stability	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with Various Substances	Slightly reactive with oxidizing agents, acids. Non-reactive with organic materials, metals.
Hazardous Decomposition Products	Not Available.
Hazardous Polymerization	Not Available.
Section 11. Toxicological Information	
Toxicity to Animals	Acute oral toxicity (LD50): 4000 mg/kg (Rat). (Calculated value for the mixture). Acute dermal toxicity (LD50): 41600 mg/kg (Rabbit). (Calculated value for the mixture).
Chronic Effects on Humans	Not Available.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of skin contact (permeator), of ingestion, of inhalation. Non-sensitizer for skin.
Special Remarks on Toxicity to Animals	No additional remark.
Special Remarks on Chronic Effects on Humans	Can cause gastrointestinal disturbances. (1,2-Propylene glycol)
Special Remarks on other Toxic Effects on Humans	No additional remark.
Section 12. Ecological Information	
Ecotoxicity	Not Available.
BOD ₅ and COD	Not Available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation	No additional remark.
Section 13. Disposal Considerations	
Waste Disposal	Recycle, if possible. Consult your local or regional authorities.
Section 14. Transport Information	
Proper Shipping Name	Not regulated.
DOT Classification	Not a DOT controlled material (United States).
DOT Identification Number	Not Applicable

Packing Group	Bulk								
Hazardous Substances Reportable Quantity	Not Applicable								
Special Provisions for Transport	Not Regulated								
Section 15. Regulatory Information									
Federal and State Regulations	TSCA Inventory: Product(s): (1,2-)Propylene glycol, Water.								
Other Classifications	WHMIS (Canada) Not controlled under WHMIS (Canada)								
	DSCL (EEC) Not controlled under DSCL (Europe)								
Section 16. Other Information									
HMIS (U.S.A)	<table border="1"> <tr> <td>HEALTH</td> <td>1</td> </tr> <tr> <td>FLAMMABILITY</td> <td>1</td> </tr> <tr> <td>REACTIVITY</td> <td>0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td>[E]</td> </tr> </table>	HEALTH	1	FLAMMABILITY	1	REACTIVITY	0	PERSONAL PROTECTION	[E]
HEALTH	1								
FLAMMABILITY	1								
REACTIVITY	0								
PERSONAL PROTECTION	[E]								
	National Fire Protection Association (U.S.A.) 								
References	Not Available.								
Other Special Considerations	No additional Remark.								
Emergency Contact	CHEM-TEL. INC. 1-800-255-3924								
Notice to Reader									
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.									

DALLAS Chemical Technologies, Inc.**SECTION 1: CHEMICAL PRODUCT - COMPANY IDENTIFICATION****Company's Name and Address:**

Dallas Chemical Technologies
10120 Hirsch Road
Houston, TX 77016

Emergency Telephone: (713) 631-2009

Information Telephone: (281) 419-9737

Date MSDS prepared: 22 Aug 2001

Safety Data Review: 22 Aug 2001

SUBSTANCE: Ammonium lignosulfonate/ DUST CONTROL

TRADE NAMES/SYNONYMS: Spent sulfite liquor; spent pulping liquor/ Dust Control

CHEMICAL FAMILY: Lignin

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>%</u>	<u>CAS RN</u>	<u>Exposure Limits</u>
Ammonium lignosulfonate	5-45	8061-53-8	Unknown
(Contains alkali sulfides, carbonates, sulfates, degraded cellulose, lignins. Composition will vary.)			

SECTION 3: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:****WARNING:**

Black or brown liquid
Causes skin and eye irritation
Causes respiratory tract irritation

POTENTIAL HEALTH EFFECTS:**INHALATION:**

Inhalation of mists may cause severe respiratory tract irritation. Symptoms may include burning, coughing, and difficulty breathing. At high concentrations, may cause chemical pneumonitis and pulmonary edema. Chronic inhalation of dusts may cause lung damage. Some individuals may become sensitized to sulfites, with asthma-like symptoms developing upon subsequent exposure.

SKIN CONTACT:

May cause skin irritation. Symptoms may include reddening, swelling, scaling or blistering. May cause allergic skin reactions in sensitive individuals following repeated or prolonged use. Symptoms may include itching, dryness, and scaling.

EYE CONTACT:

May cause severe eye irritation. Symptoms may include burning, redness, swelling, and tissue damage.

INGESTION:

May cause gastrointestinal irritation. Symptoms may include nausea, vomiting, difficulty swallowing (swelling of throat), diarrhea and abdominal pain. Severe overexposure may cause circulatory disturbance, central nervous system depression, heart failure, unconsciousness and death from respiratory failure.

Medical Conditions Aggravated by Exposure

Exposure may aggravate pre-existing skin, eye, and respiratory disorders. Excessive exposure to sodium may adversely effect persons with pre-existing heat conditions.

DALLAS Chemical Technologies, Inc.

SECTION 4: FIRST AID MEASURES

INHALATION:

Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

SKIN CONTACT:

Remove contaminated clothing, jewelry and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). In case of burns, cover area with sterile, dry dressing. Bandage securely, but not too tightly. Get medical attention immediately.

EYE CONTACT:

Wash eyes immediately with large amounts of water or normal saline solution, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.

INGESTION:

If swallowed do not induce vomiting. If victim is fully conscious dilute stomach contents with large amounts of milk or water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, water spray or regular foam. For larger fires, use water spray, fog or regular foam.

FIREFIGHTING:

Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Extinguish fire using agent suitable for type of surrounding fire. Avoid breathing corrosive vapors; keep upwind.

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition products may include toxic and corrosive fumes including carbon monoxide, carbon dioxide, sulfur dioxide, and hydrogen sulfide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Do not touch spilled material. For small spills, contain with an inert material (paper towels, spill control pillows, absorbent particulate). DO NOT neutralize with acid. In the event of a large spill, contain by diluting with dry sand, sorbent booms, or other absorbent material. Prevent runoff into sewers, storm drains, surface waters, and soil. Follow facility-specific procedures for spill response. Isolate spill and ventilate the area. When cleaning spill, wear appropriate personal protective equipment including splash-proof safety goggles and chemical-resistant gloves. Move containers from spill area. Keep unnecessary people away. Isolate hazard area and deny entry.

SECTION 7: HANDLING AND STORAGE

Handle in accordance with good hygiene and safety procedures. Avoid inhalation, contact with eyes, skin or clothing.

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Containers of this material may be hazardous when empty because they retain product residues (dusts, solids); observe all warnings and precautions listed for the product.

Do not permit contact with acidic materials.

DALLAS Chemical Technologies, Inc.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure limits: Not known. Not listed by ACGIH. Not listed as carcinogen by NTP, OSHA, and IARC.

VENTILATION:

Provide local exhaust ventilation system.

EYE PROTECTION:

Employee must wear chemical splash goggles or a face shield.

EMERGENCY WASH FACILITIES:

Where there is any possibility that an employee's eyes and/or skin may be exposed to this substance, the employer should provide an eye wash fountain and quick-drench shower within the immediate work area for emergency use.

CLOTHING:

Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

GLOVES:

Employee must wear appropriate protective gloves, such as neoprene or butyl gloves or gauntlets, to prevent contact with this substance.

RESPIRATOR:

The following respirators are recommended based on information found in the physical data, toxicity and health effects sections. They are ranked in order from minimum to maximum respiratory protection. The specific respirator selected must be based on contamination levels found in the work place, must be based on the specific operation, must be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

- Any dust and mist respirator with a full-face piece. Any air-purifying full face piece respirator with a high-efficiency particulate filter.

- Any powered air-purifying respirator with a tight-fitting face piece and high-efficiency particulate filter.

- Any Type 'C' supplied-air respirator with a full face piece operated in pressure-demand or other positive-pressure mode or with a full face piece, helmet or hood operated in continuous-flow mode.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

DESCRIPTION: Black or dark brown liquid.

ODOR: Ranges from slight organic odor to a rotten egg odor

PHYSICAL STATE: Liquid

MELTING POINT: N/A

BOILING POINT: Variable

WATER SOLUBILITY: 100% soluble in water. Other solvents not available.

FLASH POINT: Not determined

pH OF AQUEOUS SOLUTION: 7 – 9

VAPOR PRESSURE: Not available

SPECIFIC GRAVITY: 1.1 – 1.4

SECTION 10: STABILITY AND REACTIVITY

Stable under ordinary conditions of use and storage. Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition liquor may emit fume of sulfur dioxide, hydrogen sulfide, and carbon monoxide.

CONDITIONS TO AVOID: Strong acids, oxidants.

INCOMPATIBILITIES: Strong acids, oxidizers. Contact with strong acids can lead to release of hydrogen sulfide gas. Incompatible with brass, copper and aluminum.

DALLAS Chemical Technologies, Inc.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY DATA: No data available.

CARCINOGEN STATUS: None of this product's components are listed by IARC, OSHA, or NTP.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT RATING(0-4): No Data Available

ACUTE AQUATIC TOXICITY: No Data Available

DEGRADABILITY: No Data Available

LOG BIOCONCENTRATION FACTOR (BCF): No Date Available

LOG OCTANOL/WATER PARTITION COEFFICIENT: No Data Available

SECTION 13: DISPOSAL INFORMATION:

Do not dispose into the immediate environment. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14: TRANSPORT INFORMATION

DOT: Non-regulated

DOT Hazard Class/I.D. No.: N/A

SECTION 15: REGULATORY INFORMATION

Chemical Inventory Status

Not listed

SECTION 16: OTHER INFORMATION

None