

May-07-2001, 12:16pm From-HEALTH SAFETY ENVIRONMENT

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T-758 P.008/015 F-860



MATERIAL SAFETY DATA SHEET

QUIK-GEL®

Revision Date: 03/02/2001

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: QUIK-GEL®
Synonyms: None
Chemical Family: Mineral
Application: Viscosifier

Manufacturer/Supplier
Baroid Drilling Fluids
a Product Service Line of Halliburton Energy Services, Inc.
P.O. Box 1675
Houston, TX 77251

Telephone: (281) 871-4000
Emergency Telephone: (800) 556-9260 or (713) 676-3000
CHEMTREC: (800) 424-9300

Prepared By
Product Stewardship
Telephone: 1-580-251-4335

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Substance</u>	<u>Weight Percent (%)</u>	<u>ACGIH TLV-TWA</u>	<u>OSHA PEL-TWA</u>
Bentonite 1302-78-9	60 - 100%	Not applicable	Not applicable
Crystalline silica, quartz 14808-60-7	1 - 5%	0.05 mg/m3	0.1 mg/M3

3. HAZARDS IDENTIFICATION

Hazard Overview

May cause eye irritation. Potential carcinogen. May cause delayed injury to lungs.

4. FIRST AID MEASURES

Inhalation

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Skin

Wash with soap and water. Get medical attention if irritation persists.

Eyes

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Ingestion

Under normal conditions, first aid procedures are not required.

Notes to Physician

Not Applicable

5. FIRE FIGHTING MEASURES

Flash Point/Range (F):

Not Determined

Flash Point/Range (C):

Not Determined

Flash Point Method:

Not Determined

Autoignition Temperature (F):

Not Determined

Autoignition Temperature (C):

Not Determined

Flammability Limits in Air - Lower (%):

Not Determined

Flammability Limits in Air - Upper (%):

Not Determined

Fire Extinguishing Media

All standard firefighting media.

Special Exposure Hazards

Not applicable.

Special Protective Equipment for Fire-Fighters

Not applicable.

NFPA Ratings:

Health 1, Flammability 0, Reactivity 0

HMIS Ratings:

Flammability 0, Reactivity 0, Health 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures

Use appropriate protective equipment. Avoid creating and breathing dust.

Environmental Precautionary Measures

None known.

Procedure for Cleaning/Absorption

Scoop up and remove.

7. HANDLING AND STORAGE**Handling Precautions**

Avoid creating or inhaling dust.

Storage Information

Store in a cool, dry location.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering Controls**

Use in a well ventilated area.

Respiratory Protection

Not normally needed. But if significant exposures are possible then the following respirator is recommended. Dust/mist respirator.

Hand Protection

Normal work gloves.

Skin Protection

Normal work coveralls.

Eye Protection

Wear safety glasses or goggles to protect against exposure.

Other Precautions

None known.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Color:	Light brown
Odor:	Odorless
pH:	9.5
Specific Gravity @ 20 C (Water=1):	2.5
Density @ 20 C (lbs./gallon):	Not Determined
Bulk Density @ 20 C (lbs./ft³):	47.6
Boiling Point/Range (F):	Not Determined
Boiling Point/Range (C):	Not Determined
Freezing Point/Range (F):	Not Determined
Freezing Point/Range (C):	Not Determined
Vapor Pressure @ 20 C (mmHg):	Not Determined
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	Not Determined
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Insoluble
Solubility in Solvents (g/100ml):	Not Determined
Solubility in Sea Water (g/100ml):	Insoluble Sinks
VOCs (lbs./gallon):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined

Molecular Weight (g/mole):

Not Determined

10. STABILITY AND REACTIVITY

Stability Data: Stable

Hazardous Polymerization: Will Not Occur

Conditions to Avoid
None anticipatedIncompatibility (Materials to Avoid)
None known.Hazardous Decomposition Products
None known.Additional Guidelines
Not Applicable**11. TOXICOLOGICAL INFORMATION**Principal Route of Exposure
Eye or skin contact, inhalation.Inhalation
May cause respiratory irritation. May cause silicosis, which reduces lung function. The lung damage can lead to heart problems.Skin Contact
None known.Eye Contact
Dust may cause irritation and inflammation.Ingestion
None knownAggravated Medical Conditions
Lung disorders.Chronic Effects/Carcinogenicity
Contains crystalline silica which may cause a delayed, progressive lung disease (silicosis). The IARC and NTP have determined there is sufficient evidence in humans of the carcinogenicity of crystalline silica.Other Information
None known.**Toxicity Tests**

Oral Toxicity: Not determined

Dermal Toxicity: Not determined

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Inhalation Toxicity: Not determined

Primary Irritation Effect: Not determined

Carcinogenicity
Not determined

Genotoxicity: Not determined

Reproductive/Developmental
Toxicity: Not determined

12. ECOLOGICAL INFORMATION

Mobility (Water/Soil/Air)
Not determined

Persistence/Degradability
Not determined

Bio-accumulation
Not Determined

Ecotoxicological Information

Acute Fish Toxicity: TLM96: 10000 ppm (*Oncorhynchus mykiss*)

Acute Crustaceans Toxicity: Not determined

Acute Algae Toxicity: Not determined

Chemical Fate Information
Not determined

Other Information
Not applicable

13. DISPOSAL CONSIDERATIONS

Disposal Method
If not contaminated, reuse product. Bury in a licensed landfill according to federal, state, and local regulations.

Contaminated Packaging
Follow all applicable national or local regulations.

14. TRANSPORT INFORMATION**Land Transportation**

DOT

Not restricted

Canadian TDG

Not restricted

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ADR

Not restricted

Air Transportation

ICAO/IATA

Not restricted

Sea Transportation

IMDG

Not restricted

Other Shipping Information

Labels: None

15. REGULATORY INFORMATION**US Regulations****US TSCA Inventory**

All components listed on inventory.

EPA SARA Title III Extremely Hazardous Substances

Not applicable

EPA SARA (311,312) Hazard Class

Acute Health Hazard

Chronic Health Hazard

EPA SARA (313) Chemicals

This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).

EPA CERCLA/Superfund Reportable Spill Quantity For This Product

Not applicable.

EPA RCRA Hazardous Waste Classification

If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

California Proposition 65

The California Proposition 65 regulations apply to this product.

MA Right-to-Know Law

One or more components listed.

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NJ Right-to-Know Law
One or more components listed.

PA Right-to-Know Law
One or more components listed.

Canadian Regulations

Canadian DSL Inventory
All components listed on inventory.

WHMIS Hazard Class
D2A Very Toxic Materials

16. OTHER INFORMATION

The following sections have been revised since the last issue of this MSDS
Not applicable

Additional Information

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Material Safety Data Sheet for this or other Halliburton products, contact Product Stewardship at 1-580-251-4335.

Disclaimer Statement

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

END OF MSDS

WESTCOAST DRILLING SUPPLIES LTD.

8069 River Way, Delta, British Columbia,
Canada V4G 1L3
Ph. (604) 940-6050 Fax (604) 940-6080

EMERGENCY 1-800-665-6645

SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: **PURE GOLD CHIPS**
CHEMICAL FAMILY: Natural Mineral, Montmorillonite
CHEMICAL NAME: Bentonite Clay
WHMIS CLASSIFICATION: Not available
WORK PLACE HAZARD: Not available

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION: Not Dangerous Goods
PACKAGE GROUP: Not applicable
PRODUCT IDENTIFICATION NUMBER (PIN): Not applicable

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	PERCENTAGE	CAS NUMBER	OSAH PEL	ACGIH TLV	OTHER
Bentonite Clay		1302-78-9			
Crystalline Quartz		14808-6-7			*
Total Dust (Quartz)			3 mg/M ³		
Respirable					
Crystalline Quartz					NIOSH
Present (TWA)			1 mg/M ³	TWA 0.1 mg/M ³	50 ug/M ³
Proposed (TWA)			0.1 mg/M ³	TWA 50 ug/M ³	
Total Nuisance Dust			15 mg/M ³	10 mg/M ³	
Respirable Nuisance Dust			5 mg/M ³	5 mg/M ³	

*WARNING: This clay product contains a small amount of crystalline silica which may cause delayed respiratory disease if inhaled over a prolonged period of time. Avoid breathing dust. Use NIOSH/MSHA approved respirator where TLV for crystalline silica may be exceeded. IARC Monographs on the evaluation of the Carcinogenic Risk of Chemicals for Humans (volume 42, 1987) concludes that there is "limited evidence" of carcinogenicity of crystalline silica to humans. IARC classification 2A.

SECTION III: TOXICOLOGICAL PROPERTIES**ROUTE OF ENTRY:**

[] Skin, [] Eye Contact, [XXX] Inhalation, [] Ingestion

ACUTE AND CHRONIC EXPOSURE:

May cause delayed respiratory disease if dust inhaled over a prolonged period of time.

CARCINOGENICITY:

NTP - NO, IARC MONOGRAPHS - YES,
OSHA REGULATED - NO

IARC:

Monographs on the evaluation of the Carcinogenic Risk of Chemicals to Humans (volume 41, 1987) concludes that there is "limited evidence" of the carcinogenicity of crystalline silica to humans. IARC classification 2A.

SIGNS AND SYMPTOMS OF EXPOSURE:

Excessive inhalation of dust may result in shortness of breath and reduced pulmonary function.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Individuals with pulmonary and/or respiratory disease including but not limited to asthma and bronchitis should be precluded from exposure to dust.

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SECTION IV: FIRST AID MEASURES

SKIN CONTACT:	Not applicable
EYE CONTACT:	Flush with plenty of water.
INHALATION:	For gross inhalation of dust, remove to fresh air; give oxygen or artificial respiration if necessary; get medical attention.
INGESTION:	Not available.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR:	Pale gray to buff chips; odorless.
DENSITY (SPECIFIC GRAVITY):	2.5
BOILING POINT:	Not applicable
MELTING POINT:	Not applicable
WATER SOLUBILITY:	Negligible
% VOLATILE BY VOLUME:	Not applicable
EVAPORATION RATE:	Not applicable
VAPOR PRESSURE: (mm Hg)	Not applicable
VAPOR DENSITY: (Air = 1)	Not applicable
pH:	Not available

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Not applicable
FLAMMABLE LIMIT:	Not applicable
EXTINGUISHING MEDIA:	Not applicable
SPECIAL FIRE FIGHTING PROCEDURES:	Not applicable
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Not applicable

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []	
INCOMPATIBILITY (CONDITIONS TO AVOID):	None Known
HAZARDOUS DECOMPOSITION PRODUCTS:	None Known
HAZARDOUS POLYMERIZATION:	Will not occur [XXX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION:	OSHA standard 1910.134 or ANSI Z88.2-1980 specification
VENTILATION:	As appropriate
PROTECTIVE GLOVES:	None required
EYE PROTECTION:	Suggest goggles
OTHER PROTECTIVE EQUIPMENT:	None required

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Avoid breathing dust; use NIOSH/MSHA approved respirator where TLV limits for Crystalline Silica may be exceeded. Practice reasonable caution and personal cleanliness. Product extremely slippery when wet.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Vacuum if possible to avoid generating airborne dust. Avoid breathing dust. Wear approved respirator. Avoid flushing with

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water as material may become extremely slippery.

WASTE DISPOSAL METHOD:

Dispose of material in a manner to prevent generating dust. Follow federal, state/provincial and local regulations for solid waste.

SECTION IX: PREPARATION

The information contained herein is given in good faith, but no warranty, expressed or implied is made.

DATE ISSUED: May 2, 1991**DATE REVISED:** September 1, 1997

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Canada V4C 1L3
Ph. (604) 940-6050 Fax (604) 940-6080

EMERGENCY 1-800-665-6645

SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: **VOLCLAY GROUT II**
CHEMICAL NAME: Bentonite Clay (100%)
CHEMICAL FAMILY: Natural Mineral, Montmorillonite
FORMULA: Naturally occurring hydrated aluminosilicate of sodium, calcium, magnesium and iron.

WHMIS CLASSIFICATION:
WORK PLACE HAZARD: Health - 1; Fire - 1; Reactivity - 0; Specific Hazard - See section III
CAS NO.: 1302-78-9 (Bentonite is on the TSCA inventory)

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION:
PACKAGE GROUP:
PRODUCT IDENTIFICATION NUMBER (PIN):

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACGIH TLV	OTHER
Crystalline Quartz	2 - 6%	14808-60-7			
Respirable Crystalline Quartz present (TWA) 50 ug/M3	NIOSH < 2%		0.1 mg/M30.1	mg/M350 ug/M3	proposed (TWA)
Nuisance dust			Respirable 5 mg/M3	5 mg/M3	
Total Dust			15 mg/M3	10 mg/M3	

***WARNING:** This clay product contains a small amount of crystalline silica which may cause delayed respiratory disease if inhaled over a prolonged period of time. Avoid breathing dust. Use NIOSH/MSHA approved respirator where TLV for crystalline silica may be exceeded. IARC Monographs on the evaluation of the Carcinogenic Risk of Chemicals to Humans (volume 42, 1987) concludes that there is "limited evidence" of the carcinogenicity of crystalline silica to humans. IARC classification 2A.

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY:
[] Skin, [] Eye Contact, [XXX] Inhalation, [] Ingestion

ACUTE & CHRONIC EXPOSURE: May cause delayed respiratory disease if dust inhaled over a prolonged period of time.

CARCINOGENICITY: NTP - Yes, IARC Monographs - Yes, OSHA Regulated - No.

IARC Monographs on the evaluation of the Carcinogenic Risk of Chemicals to Humans (Volume 42, 1987) concludes that there is "limited evidence" of the carcinogenicity of crystalline silica to humans. IARC classification 2A.

SIGNS AND SYMPTOMS OF EXPOSURE: Excessive inhalation of dust may result in shortness of breath and reduced pulmonary function.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Individuals with pulmonary and/or respiratory disease including but not limited to asthma and bronchitis should be precluded from exposure to dust.

SECTION IV: FIRST AID MEASURES

EYES: Flush with water.
INHALATION: Remove to fresh air, give oxygen or artificial respiration if necessary; seek medical attention.

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Toll Free: 1-800-885-8845

VOLCLAY GROUT II

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SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR:	Pale gray to buff powder or granules; Odorless.
DENSITY (SPECIFIC GRAVITY)(H ₂ O = 1):	2.5
BOILING POINT:	Not applicable
MELTING POINT:	Not applicable
WATER SOLUBILITY:	Negligible
EVAPORATION RATE (Butyl Acetate = 1):	Not applicable
VAPOR PRESSURE: (mm Hg)	Not applicable
VAPOR DENSITY: (Air = 1)	Not applicable

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Not applicable
FLAMMABLE LIMIT:	Not applicable LEL UEL
EXTINGUISHING MEDIA:	Not applicable
SPECIAL FIRE FIGHTING PROCEDURES:	Inorganic Mineral/Non-Flammable.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Not applicable

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []	
INCOMPATIBILITY (CONDITIONS TO AVOID):	None known
INCOMPATIBILITY (MATERIALS TO AVOID):	None known
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	None known
HAZARDOUS POLYMERIZATION:	Will not occur [XXX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION (SPECIFIC TYPE):	OSHA standard 1910.134 or ANSI Z88.2-1980 specification.
VENTILATION:	Local exhaust - As appropriate Special - None Mechanical (General) - As appropriate Other - None
PROTECTIVE GLOVES:	Not required
EYE PROTECTION:	Recommended
OTHER PROTECTIVE EQUIPMENT:	None
WORK/HYGIENIC PRACTICES:	Use good housekeeping practices.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Avoid breathing dust, use NIOSH/MSHA approved respirator where TLV limits for Crystalline Silica may be exceeded.

OTHER PRECAUTIONS:

Slippery when wet.

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VOLCLAY GROUT II

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STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Vacuum if possible to avoid generating airborne dust. Avoid breathing dust. Wear approved respirator. Avoid adding water, the product will become slippery when wet.

WASTE DISPOSAL METHOD:

Follow federal, state and local regulations for solid waste.

SECTION IX: PREPARATION

The information contained herein is given in good faith, but no warranty, expressed or implied is made.

DATE ISSUED:

DATE REVISED: September 1, 1997

BY: Product Safety Committee

**IMPERIAL OIL
MATERIAL SAFETY DATA SHEET
LIGHT DISTILLATE**

Date Prepared: May 23, 2001
Supersedes: May 11, 2001
MSDS Number: 08529

1. PRODUCT INFORMATION

Product Identifier: LIGHT DISTILLATE

ESSO STOVE OIL (DYED OR CLEAR)
DIESEL ARCTIC (DYED OR CLEAR)
ESSO DIESEL DEW (DYED OR CLEAR)
ESSO DIESEL ARCTIC (DYED OR CLEAR)
ESSO STOVE QUALITY COMMERCIAL FUEL
ESSO STOVE QUALITY FURNACE FUEL
ESSO STOVE QUALITY HEATING OIL (DYED OR CLEAR)
STOVE QUALITY FURNACE FUEL
DIESEL 60 (DYED OR CLEAR)
DIESEL DEW (DYED OR CLEAR)
ESSO DIESEL 60 (DYED OR CLEAR)
ESSO DIESEL LIGHT (DYED OR CLEAR)
STOVE OIL (DYED OR CLEAR)
STOVE QUALITY HEATING OIL (DYED OR CLEAR)
ESSO DIESEL FUEL OIL 50 (DYED OR CLEAR)
DIESEL LOW SULFUR LIGHT (DYED OR CLEAR)
LIGHT DISTILLATE (LOW SULFUR)
STOVE QUALITY COMMERCIAL FUEL
DIESEL FUEL OIL 50 (DYED OR CLEAR)
DIESEL LIGHT (DYED OR CLEAR)
DIESEL LOW SULFUR LIGHT DYED EP
FURNACE LIGHT (DYED OR CLEAR)

Application and Use:
Multi-purpose fuel

Product Description:

A complex mixture of aliphatic, olefinic, naphthenic and aromatic hydrocarbons, and additives.

TDG INFORMATION (RAIL/ROAD) :

Shipping Name: FUEL OIL
Class: 3
Packing Group: III
PIN Number: UN1202

Please be aware that other regulations may apply.

TELEPHONE NUMBERS

Emergency 24 hr. (519) 339-2145
Technical Info. (800) 268-3183

MANUFACTURER/SUPPLIER:

IMPERIAL OIL
Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(416) 968-4441

2. REGULATED COMPONENTS

The following components are defined in accordance with sub-paragraph 13(a)

(i) to (iv) or paragraph 14(a) of the Hazardous Products Act:

NAME	%	CAS #
Kerosene, straight run	0-100 V/V	8008-20-6 LD50:>5g/kg, oral
Light Atmospheric Gas Oil	0-100 V/V	64741-44-2
Light Hydrocracked Distillate	0-100 V/V	64741-77-1

3. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Physical State: Liquid
Specific gravity: not available
Viscosity: 1.70 cSt at 40 deg C
Vapour Density: not available

4. HEALTH HAZARD INFORMATION

NATURE OF HAZARD

INHALATION:

Negligible hazard at normal temperatures (up to 38 deg C).
High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects.
Avoid breathing vapours or mists.

EYE CONTACT:

Slightly irritating, but will not injure eye tissue.

SKIN CONTACT:

Low toxicity.
Irritating.

INGESTION:

Low toxicity.
Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

CHRONIC:

Lifetime skin painting tests indicate that materials of similar composition have produced skin cancer in experimental animals. The relationship of these results to humans has not been fully established.

ACUTE TOXICITY DATA:

Based on animal testing data from similar materials and products, the acute toxicity of this product is expected to be:

Oral	:	LD50 > 5000 mg/kg	(Rat)
Dermal	:	LD50 > 2000 mg/kg	(Rabbit)
Inhalation	:	LC50 > 2500 mg/m3	(Rat)

5. FIRST AID MEASURES

INHALATION:

In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

EYE CONTACT:

Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT:

Immediately flush with large amounts of water. Use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. If irritation persists, seek medical attention.

INGESTION:

DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.

6. PREVENTIVE AND CORRECTIVE MEASURES

PERSONAL PROTECTION:

The selection of personal protective equipment varies, depending upon conditions of use.

In open systems where contact is likely, wear safety goggles, chemical resistant overalls, and chemically impervious gloves.

Where only incidental contact is likely, wear safety goggles, long sleeves,

and chemical-resistant gloves.

Where concentrations in air may exceed the occupational exposure limit given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROLS:

after handling the material.

Do not handle or store near an open flame, sources of heat, or sources of ignition.

Material will accumulate static charges which may cause a spark. Static charge build-up could become an ignition source. Use proper relaxation and

grounding procedures.

Empty containers may contain product residue. Do not pressurize, cut, heat, or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

LAND SPILL:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard.

Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust.

Recover by pumping (use an explosion proof motor or hand pump), or by using a suitable absorbent.

Consult an expert on disposal of recovered material. Ensure disposal compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

WATER SPILL:

Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters.

Consult an expert on disposal of recovered material. Ensure disposal compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

7. FIRE AND EXPLOSION HAZARD

Flashpoint and method: 40 deg C PMCC ASTM D93

Autoignition: NA Flammable Limits: LEL: NA UEL: NA

Use water spray to cool fire exposed surfaces and to protect personnel
Shut off fuel to fire.

Use foam, dry chemical or water spray to extinguish fire.

Respiratory and eye protection required for fire fighting personnel.

Avoid spraying water directly into storage containers due to danger of
boilover.

A self-contained breathing apparatus (SCBA) should be used for all indoor
fires and any significant outdoor fires. For small outdoor fires, which
may easily be extinguished with a portable fire extinguisher, use of a
SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS:

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

In addition, small amounts of nitrogen oxides will be formed.

8. REACTIVITY DATA

STABILITY:

This product is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong oxidizing agents. Use product with caution around heat, sparks
pilot lights, static electricity and open flames.

HAZARDOUS DECOMPOSITION:

none

9. NOTES

All components of this product are listed on the U.S. TSCA inventory.

CHANGE TO US MSDS ONLY.

CAUTION: " The information contained herein relates only to this product material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal or reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Imperial Oil customers and their employees and agents only. Any further distribution of this MSDS by Imperial Oil customers is prohibited without the written consent of Imperial Oil."