Cominco Ltd. Canada Exploration -- Emergency Spill Response

1. Materials to be used for Spill Control

Matasorb (sheets, rolls, tiger tails)
This is a melt brown polypropylene product designed specifically for soaking up diesel, gasoline and other hydrocarbon products, as well as a wide range of other liquids.

Plug'n'Dyke
This is a non-toxic material that forms an immediate seal to control flammable and hazardous leaks from containers.
46-gallon drum with two closing rings -exceeds DOT 17C & 17E
-meets DOT 5B
These materials will be stored both in the camp and at the diamond drill.

2. Categories/Response

i) Leaking Drum:
-seal with plug'n'dyke if appropriate
-pump out fluid either into non-leaking empty drum or into salvage drum
-clean up ground with Matasorb
-dispose of waste material to Polaris dump or burn

ii) Localized Spill of Diesel Fuel/Gasoline/Hydraulic Fluid:
-clean up area with Matasorb
-dispose of waste material

iii) Larger Spill/Spill at Diamond Drill
-control discharge as required-shut off motor, use plug'n'dyke
-contain spill with Matasorb
-clean up area with Matasorb sheets
-dispose of waste material

3. Disposal of Waste Material and Waste Fluids

Contaminated Matasorb material and waste fluids will be transported back to Polaris for incineration.

EMERGENCY SPILL RESPONSE PLAN

1. Identify nature and source of spill -- fuel drums, hydraulic hose etc.

2. Take immediate action to control the spill at source -- shut off engine, seal leaking drum with Plug n'Dyke etc.

3. Notify the on-site geologist.

4. Open up spill response kit and use appropriate method to clean up spilled material.

5. The On-site Geologist will go to the spill site and ensure appropriate and complete clean up of spilled material.

6. Dispose of waste material.

7. Each spill to be documented by On-site Geologist

Victoria L. Yehl
Geologist
Global Exploration, Canada

January 8, 2001

M S D S

Canadian Centre for Occupational Health and Safety
Issue : 97-1 (February, 1997)

*** IDENTIFICATION ***

MSDS RECORD NUMBER : 1322365
PRODUCT NAME(S) : Calcium Chloride
PRODUCT IDENTIFICATION : PRODUCT CODE: 93515
DATE OF MSDS : 1996-11-14

*** MANUFACTURER INFORMATION ***

MANUFACTURER : CHAMPION TECHNOLOGIES, LTD
ADDRESS : 6555 - 30th Street South East
Calgary Alberta
Canada T2C 1R4
EMERGENCY TELEPHONE NO. : 403-279-2835
613-996-6666 (CANUTEC)

*** SUPPLIER/DISTRIBUTOR INFORMATION ***

SUPPLIER/DISTRIBUTOR : CHAMPION TECHNOLOGIES, LTD
ADDRESS : 6555 - 30th Street South East
Calgary Alberta
Canada T2C 1R4
EMERGENCY TELEPHONE NO. : 403-279-2835 613-996-6666 (CANUTEC)

*** MATERIAL SAFETY DATA ***

MATERIAL SAFETY DATA SHEET
Calcium Chloride

SECTION 1 - IDENTIFICATION

CHAMPION TECHNOLOGIES, LTD.
6555 - 30th Street S.E.
Calgary, Alberta T2C 1R4
Trade Name: Calcium Chloride
Chemical Family: Salt
Product Use: Industrial
Printed: 11/14/96

IBM 93515
EMERGENCY TELEPHONE NUMBERS
1-403-279-2835
1-613-996-6666 (CANUTEC)

Prepared by: J.Bursey

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Components	CAS No.	Wt.%	LD50	LC50
CALCIUM CHLORIDE	10043-52-4	60-100	NA	NA

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Physical State:	solid	Vapor Point, C:	ND
Boiling Point, C:	204	Vapor Pressure:	NA
Freezing Point, C:	NA	Vapor Density:	ND
pH:	NA	Specific Gravity (H20=1):	2.2
Coeff. Water/Oil Dist.:	ND	Evaporation Rate:	ND

Odour Threshold (ppm ND (butyl ace te=1)
Odour and Appearance: White to off white pepples

SECTION 4 - FIRE & EXPLOSION DATA

Flash Point, C & Method Flammable Limits: LEL,% NA UEL,% NA
NA PMCC Based on: NA
Autoignition Temp C: ND
Hazardous Combustion Products: Smoke, CO, CO2, & vapors
Explosion Data: ND
Sensitivity to Static Discharge: ND
FIRE HAZARDS:
Flammable material may be ignited by heat, sparks, or flames. Vapours may travel to a source of ignition and flashback. Containers may explode in heat or fire.Vapour exploration hazard indoors, outdoors or in sewers. Run off to sewer may creat fire or explosion hazard.
EXTINGUISHING MEDIA:
Dry chemical, co2, water spray or regular foam. 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 the fire is out. Stay away from ends of containers.

Abbreviations: NA=not available, NAP=not applicable, ND=not determined.

Calcium Chloride

SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)

Chemical Stability: STABLE
Conditions To Avoid: NA
Incompatible Materials: Strong oxidizers
Hazardous Decomposition: Oxides of carbon and nitrogen

SECTION 6 - HEALTH HAZARDS

PRIMARY ROUTES OF ENTRY
Inhalation: X Absorption: X Ingestion: X Injection: NA
HEALTH HAZARDS:
Contact may irritate or burn skin and eyes. Fire may produce irritating gases. Runoff from fire control or dilution water may cause pollution.
EMERGENCY & FIRST AID PROCEDURES:
Move victim to fresh air and call emergency medical care. If not breathing give artificial respiration. If breathing is difficult, give oxygen under supervision.
In case of eye contact, immediately flush with running water for at least 15 minutes. In case of skin contact, wash with soap and water. In case of ingestion, call a physician.
Do not induce vomiting.

Carcinogenicity? ND

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Stop leak if you can do it without risk. Take up with sand or other noncombustible absorbent material and place in containers for later disposal.
HANDLING PROCEDURES AND EQUIPMENT:

Handle carefully, av d smoking, drinking, or e ng on use. Wear adequate protective clothes. andle and open container with care. In case of accident or if you feel ill, seek medical advice.

STORAGE REQUIREMENTS:
Store in well ventilated area, away from all sources of ignition. Keep away from children. Do not store near foodstuffs. Store in a duly identified container. Observe local regulations.
ATTENTION:
Do not cut, puncture or weld on or near this container.
WASTE DISPOSAL METHOD:
Contact all municipal, provincial and federal regulations.

SECTION 8 - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection (Specify Type):
NONE REQUIRED UNDER NORMAL CONDITIONS.
Ventilation: Local Exhaust: Recommended General Exhaust: Recommended
Special: NA
Protective Gloves: Chemically Resistant / Non-Slip
Eye Protection: Chemical Safety Goggles / Safety Glasses
Other Protective Clothing or Equipment: Coveralls, Splash Aprons, Eye Wash, and Safety Shower
Work/Hygenic Practices:
Clean up Spills Promptly, Wash Contaminated Clothing.

SECTION 9 - SHIPPING DATA

Hazard Classification:	UN/NA No.:	Labels Required:
NOT-REGULATED	NONE	NONE

Proper Shipping Name/Description:
SHIPPING DESCRIPTION:
None (CALCIUM CHLORIDE)

pH:	Flash Point, C:	Pkg. Group:
NA	NA	NONE

This information is based on data believed by Champion Technologies, Ltd. to be accurate, but no warranty, express or implied is made.

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*  Canadian Centre for Occupational Health and Safety *
* * * * * * * * * * * * * Issue : 97-1 (February, 1997) *
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*** IDENTIFICATION ***

MSDS RECORD NUMBER : 1313472
PRODUCT NAME(S) : COMMERCIAL PROPANE (ODORIZED)
PRODUCT IDENTIFICATION : MSDS Number : 010012
DATE OF MSDS : 1996-04-03

*** MANUFACTURER INFORMATION ***

MANUFACTURER : Imperial Oil (Products Division)
ADDRESS : 111 St Clair Avenue West
Toronto Ontario
Canada M5W 1K3
Telephone: 416-968-4111

*** SUPPLIER/DISTRIBUTOR INFORMATION ***

SUPPLIER/DISTRIBUTOR : Imperial Oil (Products Division)
ADDRESS : 111 St Clair Avenue West
Toronto Ontario
Canada M5W 1K3
Telephone: 416-968-4111

*** MATERIAL SAFETY DATA ***

Date Prepared: April 03, 1996
Supersedes: June 27, 1995
MSDS Number : 010012

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1. PRODUCT INFORMATION

Product Identifier: COMMERCIAL PROPANE (ODORIZED)

Application and Use:
Chemical feedstock, fuel for space heating or auto fuel for low severity engines, and crop drying.

Product Description:

Colourless gases composed mainly of C3 hydrocarbons stored and handled as liquids under pressure.

REGULATORY CLASSIFICATION

WHMIS:
Class A - Compressed Gas
Class B, Division 1: Flammable Gases.

CEPA: CANADIAN ENVIRONMENTAL PROTECTION ACT
All components of this product are either on the Domestic Substances List (DSL) or are exempt.

TRANSPORTATION OF DANGEROUS GOODS INFORMATION

Shipping Name: Liquified Petroleum Gas (Propane)
Class: Flammable Gas 2.1 Packing Group: Not regulated
PIN Number: UN1075 Guide Number: 102

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) 968-4111

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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 #
Ethane	0- 5 V/V	74-84-0
Propane	90-99 V/V	74-98-6
Propylene	1-10 V/V	115-07-1
Isobutane	0-2.5 V/V	75-28-5
Butanes	0-2.5 V/V	68513-65-5

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3. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Physical State: Gas
Specific gravity: not available
Viscosity: 0.50 cSt at 15 deg C
Vapour Density: 1.52
Boiling Point: -42 deg C
Evaporation rate: >1 (1= n-butylacetate)
Solubility in water: negligible
Freezing/Pour Point: not available
Odour Threshold: not available

Vapour Pressure: 92 a at 16 deg C
Density: 0.51 g/cc at 15 deg C
Appearance/odour: Colourless gas, stenched to allow detection of leaks.

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4. HEALTH HAZARD INFORMATION

NATURE OF HAZARD

INHALATION:

May cause central nervous system disorder (e.g. loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Breathing high vapour concentrations (saturated vapours) for a few minutes may be fatal. Saturated vapours can be encountered in confined spaces and/or under conditions of poor ventilation.
May cause irritation, breathing failure, coma and death without any warning odour being sensed.
Inhalation exposure to this product at extremely high concentrations, as in accidental releases in which concentrations reach or exceed the flammable range, may result in cardiac arrhythmias.

EYE CONTACT:

Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite (cold burns) and permanent eye damage.

SKIN CONTACT:

Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite (cold burn).

INGESTION:

Not considered to be a hazard.

ACUTE TOXICITY DATA:

The above evaluation of hazard is based on knowledge of the toxicity of the material's components.

OCCUPATIONAL EXPOSURE LIMIT:

Manufacturer recommends:
For Isobutane, 800 ppm.
For Propane, 1000 ppm TWA for 8 hours/day, and 1500 ppm for a 15 minute short term exposure (STEL).

ACGIH recommends:
For Butane, 800 ppm (1900 mg/m3).

Local regulated limits may vary.

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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:

In case of cold burns caused by rapidly expanding gas or vapourizing liquid, get prompt medical attention.

SKIN CONTACT:

In case of cold burns caused by rapidly expanding gas or vapourizing liquid, get prompt medical attention.

INGESTION:

First aid is not applicable.

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 gas-proof goggles, face shiel chemical-resistant overalls, and appropriate thermal/chemical gloves.
Where skin and eye contact is unlikely, but may occur as a result of short and/or periodic exposures, wear long sleeves, chemical resistant gloves, gas-proof goggles, and a face shield.
Where concentrations in air may exceed the occupational exposure limits 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:

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.
Use explosion-proof ventilation equipment.

HANDLING, STORAGE AND SHIPPING:

Keep containers closed. Handle and open containers with care.
Store in a cool, well ventilated place away from incompatible materials.
Store as pressurized liquid in a pressure vessel.
Store and load the container at normal (up to 38 deg C) temperature and at atmospheric pressure.
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.
Vapours or dust may be harmful or fatal. Warn occupants of downwind areas.
Allow to evaporate.
Consult an expert on disposal of recovered material. Ensure disposal in 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:

Eliminate all sources of ignition. Vapours or dust may be harmful or fatal. Warn occupants and shipping in downwind areas.
Allow to evaporate from surface.
Consult an expert on disposal of recovered material. Ensure disposal in 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.

. FIRE AND EXPLOSION HAZARD

Flashpoint and method: -103 deg C COC

Autoignition: 432 deg C Flammable Limits: LEL: 2.4% UEL: 9.5%

GENERAL HAZARDS:

Extremely flammable; material will readily ignite at normal temperatures.
Flammable Gas; may readily form flammable mixtures at or above the flash point.
Toxic gases will form upon combustion.
Static Discharge; material may accumulate static charges which may cause a fire.
Auto-refrigeration; drains may become plugged and valves may become inoperable because of the formation of ice due to expanding vapours or vapourizing liquids.

FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel.
Shut off fuel to fire if possible to do so without hazard. If a leak or spill has not ignited use water spray to disperse the vapours.
Either allow fire to burn out under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam.
Respiratory and eye protection required for fire fighting personnel.
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 an SCBA may not be required.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, carbon monoxide, carbon dioxide under thermal decomposition.

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8. REACTIVITY DATA

STABILITY:

This product is stable. Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong oxidizing agents

HAZARDOUS DECOMPOSITION:

none

NOTES

Imperial Oil has no knowledge how its customers will handle, store, transfer, distribute or use odourized propane or non-odourized propane and therefore makes no warranty regarding the propane or the odourant after the custody of these materials passes to the customers. It is recommended that Imperial Oil's customers provide their employees and subsequent customers with information regarding the characteristics of propane, how those characteristics relate to the employees or customers use including the limitation in detecting non-odourized or odourized propan and the limitations of any odourant such as ethyl mercaptan that may be add during subsequent distribution.
With proper handling, transportation and storage, adding a chemical odourant such as ethyl mercaptan has proven to be a very effective warning device but all odourants have certain limitations. The effectiveness of the odourant may be diminished by a person's sense of smell, by competing odours and by oxidation which may cause a potentially dangerous situation. Further safety related information is contained on the Material Safety Data Sheet.
Industry experience has shown that natural gas streams may contain trace amounts of radon, a naturally occurring radioactive gas, and radioactive particulate decay products which can accumulate in process equipment and storage vessels. These materials emit gamma, alpha, and beta forms of radiation. Since gamma radiation can penetrate the walls of intact equipmen a potential for exposure could exist at or adjacent to the external surface of process equipment that contain radon-enriched process streams or accumulated deposits of radon decay products. Equipment emitting gamma radiation at dose rates above background should be assumed to be contaminat with internal deposits of alpha-and beta-emitting radon decay products. Measures should be taken to preclude the inhalation or ingestion of alpha-beta-emitting materials. Before performing maintenance on contaminated equipment, all process shut-down safety and "gas freeing" procedures should be followed and at least a 4 hour lapse should be allowed between process stream shut-down and the opening of equipment for repair operations. This

time will allow the gamma radiation dose rates to be reduced to background levels. Maintenance personnel should wear appropriate personal protective equipment and follow recommended industrial hygiene/safety and environmenta procedures in accordance with prevailing regulations and industry guideline

This msds has been revised in Sections 2,4 and 5.

.0. PREPARATION

Date Prepared: January 11, 1996
Prepared by: Lubricants & Specialties
IMPERIAL OIL
Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(800) 268-3183

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*  Canadian Centre for Occupational Health and Safety           *
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*** IDENTIFICATION ***

MSDS RECORD NUMBER : 421419
PRODUCT NAME(S) : DIESEL FUEL
Other Names: Diesel 20X, 0, 15, 20, 25, 30, 40, 40S
50, 60
Diesel AA, Diesel GM 35, 45
Domestic Marine Diesel
PRODUCT IDENTIFICATION : W104E(9204)
DATE OF MSDS : 1992-04-01
CURRENCY NOTE : This MSDS is currently under revision by Petro-Canac
and a more updated version is, or may be, available
from Petro-Canada directly. Petro-Canada will be
updating their MSDS collection in the CCOHS MSDS
database in the near future.

*** MANUFACTURER INFORMATION ***

MANUFACTURER : PETRO-CANADA
ADDRESS : POST OFFICE BOX 2844
PETRO-CANADA CENTRE
CALGARY ALBERTA
CANADA T2P 3E3
EMERGENCY TELEPHONE NO. : 403-296-3000

***

MESSAGE FROM PETRO-CANADA: PETRO-CANADA AND ITS AFFILIATES ASSUME NO RESPONSIBILITY FOR INJURY TO ANYONE CAUSED BY THE MATERIAL IF REASONABLE SAFETY PROCEDURES ARE NOT ADHERED TO AS STIPULATED IN THE DATA SHEET. ADDITIONALLY, PETRO-CANADA AND ITS AFFILIATES ASSUME NO RESPONSIBILITY FOR INJURY TO ANYONE CAUSED BY ABNORMAL USE OF THE MATERIAL EVEN IF REASONABLE SAFETY PROCEDURES ARE FOLLOWED. FURTHERMORE, VENDEE AND THIRD PERSONS ASSUM THE RISK IN THEIR USE OF THE MATERIAL.

*** SUPPLIER/DISTRIBUTOR INFORMATION ***

SUPPLIER/DISTRIBUTOR : PETRO-CANADA
ADDRESS : POST OFFICE BOX 2844
PETRO-CANADA CENTRE
CALGARY ALBERTA
CANADA T2P 3E3
EMERGENCY TELEPHONE NO. : 403-296-3000

*** MATERIAL SAFETY DATA ***

MATERIAL SAFETY DATA SHEET

WHMIS CLASSIFICATION

Combustible Liquid (Class B3) PRODUCT CODE: N/A
Poisonous Material (D2) DATE PREPARED: April 1, 1992

SECTION I MATERIAL IDENTIFICATION

Trade Name:	DIESEL FUEL
Other Names:	Diesel 20X, 0, 15, 20, 25, 30, 40, 40S, 50, 60 Diesel AA, Diesel GM 35, 45 Domestic Marine Diesel
Chemical Synonyms and Family:	Petroleum hydrocarbon
Poison Control Centre Numbers:	Consult local telephone directory for emergency numbers.
Application:	Diesel fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression ignition type.

SECTION II TRANSPORTATION

UN Number: 1202
Primary Classification: 3.3
Subsidiary Classification: NR
Compatibility Groups: N/A
CANUTEC Transport Emergency No.: (613) 996-6666

SECTION III COMPOSITION

COMPONENTS	% (VOL.)	CAS #
Complex mixture of petroleum hydrocarbons* (C9 - C18).	>99.9	68334-30-5
ALLOWABLE LIMITS (8 h) 5 mg/m3 (oil mist)**		
Anti-static additive, cetane improver, pour point depressant.	<0.1	N/A
ALLOWABLE LIMITS (8 h) N/A		

* Aromatic content is 38% maximum (benzene nil)
** Petro-Canada recommendation.

SECTION IV PHYSICAL DATA

Density (@ 15 deg C):	0.78-0.90 kg/L
Vapour Pressure (@ 25 deg C):	1 kPa (approx.)
Vapour Density (@ 20 deg C):	4.5 (approx.)
Solubility in Water:	Insoluble
Viscosity (Kinematic): (@ 40 deg C)	1.2-4.1 cSt
Pour Point:	-50 to -6 deg C (-58 to 20 deg F)
Boiling Point/Range (@ 1 atm):	145-371 deg C (approx.)
Percent Volatile (@ 20 deg C):	U
Evaporation Rate:	N/A
Appearance & Odour:	Clear to yellow, bright oily liquid with hydrocarbon odour.**

** May be dyed purple or red for taxation purposes.

SECTION V FIRE & EXPLOSION DATA

Flash Point (method used = COC):	40 deg C (minimum)
Flammable limits in air (% by volume):	Lower 0.7% Upper 6.0%
Auto-Ignition Temperature:	>225 deg C
Fire and Explosion Hazards: MODERATE FIRE HAZARD	Treat as combustible liquid. Do not cut, drill or weld empty containers.
Extinguishing Media:	Dry chemical or carbon dioxide for small fires. Water spray or foam for large fires.
Fire Fighting Procedures:	Use full protective equipment and self-contained breathing apparatus. Cover with extinguishing agent. Use water spray to cool fire-exposed containers and as a protective screen. Do not point solid water stream directly into burning product to avoid spreading fire.

SECTION VI HEALTH HAZARD INFORMATION

Toxicity Data

* Estimated acute LD50 = 7650 mg/kg (rat, oral): practically non-toxic.
Rabbit primary dermal irritation index (Draize) = 6.8: extremely irritating. Rabbit eye irritation index (Draize) = 0: non-irritating.

Effects of Overexposure

Inhalation:	Inhalation of vapours or mist will cause headaches, nausea, dizziness, and intoxication; severe central nervous system depressant.
Skin and Eyes:	Irritation, defatting and drying of skin. Prolonged exposure to skin may cause chapping, cracking or possibly dermatitis. Eye contact may cause irritation, but not permanent damage.
Ingestion:	Ingestion is unlikely.

* Based on API Study #79-6 on diesel fuel where LD50=9.0 mL/k (rat, oral).

Emergency and First Aid Procedures Information

Skin:	Remove contaminated clothing - launder before reuse. Soap and water wash. Discard saturated leather articles.
Eyes:	Copious warm water flush - 15 minutes. Physician assessment mandatory.
Inhalation:	Evacuate to fresh air. Apply Cardio Pulmonary Resuscitation if required. Administer oxygen if available. If resuscitation is required, physician assessment is mandatory.
Ingestion:	DO NOT INDUCE VOMITING. If vomiting - take care to prevent aspiration. Give 250 mL. (1/2 pint) of milk to drink. Mandatory physician assessment.
Notes to Physician:	Gastric lavage should only be done after endotracheal intubation in view of the risk of aspiration which can cause serious chemical pneumonitis for which antibiotic

and corticosteroid therapy may be indicated.

SECTION VII REACTIVITY DATA

Stability:	Stable under normal storage and use.
Conditions to avoid:	Excessive heat, sources of ignition, formation of oil mist.
Materials to avoid:	Strong oxidizing agents (strong acids, peroxides, chlorine, etc).
Hazardous Decomposition products:	COx, SOx, smoke on combustion.
Can hazardous polymerization occur?:	No.

SECTION VIII SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled:	Avoid contact. Use full protective equipment and breathing apparatus if required. ELIMINATE IGNITION SOURCES. Contain spill. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using electrically grounded explosion-proof pumps. Place absorbent in closed metal containers. DO NOT FLUSH TO SEWER.
Waste Disposal Method:	Dispose in approved, SECURE contaminated waste landfill site or licensed waste reclaimer facility. Check with applicable jurisdictions for specific disposal requirements.

SECTION IX SPECIAL PROTECTION INFORMATION

Ventilation:	General ventilation. Use explosion-proof mechanical ventilation suitable for group D atmospheres.
Respiratory Protection:	Up to 5 mg/m3 (oil mist), none required. From 5 to 50 mg/m3, use an approved organic vapour respirator suitable for oil mist in areas with sufficient oxygen. Above 50 mg/m3, use full-face air-supplied or self-contained breathing apparatus.
Protective Gloves:	For direct contact with hydrocarbons of more than 2 hours, VITON or NITRILE recommended. Otherwise, PVC gloves may be worn.
Eye Protection:	Chemical goggles if splashing likely.
Other Protective Clothing:	Wear long sleeved clothing to minimize skin contact.

SECTION X SPECIAL PRECAUTIONS

Store in cool, well-ventilated area. Electrically ground/bond during pumping or transfer to avoid static accumulation. AVOID SKIN CONTACT AND INHALATION. Practice good personal hygiene. DO NOT SIPHON BY MOUTH OR USE AS A CLEANING SOLVENT. Launder work clothes frequently. Petro-Canada recommends an

allowable exposure of 5 mg/m3 (oil mist) when handling DIESEL FUELS.

SECTION XI REFERENCES

ACGIH, Threshold Limit Values and Biological Exposure Indices for 1991.
CONCAWE, First Aid Measures, Medical Toxicology Data and Professional Advice to Clinicians on Petroleum Products, February 1983.
API, Petroleum Process Stream Terms Included in the Chemical Substances Inventory Under the Toxic Substances Control Act (TSCA), 1983.
Environment Canada Manual for Spills of Hazardous Materials, March, 1984.
Patty's Industrial Hygiene and Toxicology, 3rd Edition, Vol. 2B, 1981.
NIOSH, The Industrial Environment - Its Evaluation and Control, 1973.
API, Acute Toxicity Tests on Diesel Fuel, API # 79-6, 1980.
API, The Toxicology of Petroleum Hydrocarbons, May, 1982.

Prepared by Environment, Safety and Hygiene

Cette fiche est aussi disponible en francais.

NR-Not Regulated N/A-Not Applicable U-Unknown
W104E(9204)

ISN: 421419

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*  Canadian Centre for Occupational Health and Safety             *
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*** IDENTIFICATION ***

MSDS RECORD NUMBER : 1307882
PRODUCT NAME(S) : REGULAR UNLEADED GASOLINE MMT-FREE
PRODUCT IDENTIFICATION : SHELL CANADA CODE 211-003
DATE OF MSDS : 1994-11-15

*** MANUFACTURER INFORMATION ***

MANUFACTURER : SHELL CANADA LIMITED
ADDRESS : Post Office Box 100 Station M
Calgary Alberta
Canada T2P 2H5
Telephone: 403-691-3111
EMERGENCY TELEPHONE NO. : 403-691-2220 (BUSINESS HOURS)
800-661-7378 (AT ALL OTHER TIMES)
613-996-6666 (CANUTEC, 24 HOUR)

*** MATERIAL SAFETY DATA ***

MATERIAL SAFETY DATA SHEET

MSDS NUMBER: 211-003

SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: REGULAR UNLEADED GASOLINE MMT-FREE
MANUFACTURER/SUPPLIER'S NAME: SHELL CANADA LIMITED
ADDRESS: P.O. Box 100, Station M
Calgary, Alberta
Canada
T2P 2H5 PHONE: 403-691-3111

SHELL EMERGENCY TELEPHONE NUMBER CANUTEC
BUSINESS HOURS : (403) 691-2220 24 HOUR EMERGENCY TELEPHONE
AT ALL OTHER TIMES : 1-800-661-7378 (613) 996-6666

CHEMICAL SYNONYMS
Automotive Fuel
Petrol
PRODUCT USE
Fuel
WHMIS CLASS AND DESCRIPTION
Class B2 Flammable Liquid
Class D2A Other Toxic Effects - Carcinogen
CANADIAN TDG DESCRIPTION (ROAD & RAIL)
SHIPPING NAME: GASOLINE
CLASS DESCRIPTION: PACKING GROUP:
Class 3 Flammable Liquid II
UN NUMBER: 1203

SECTION 2 INGREDIENTS & TOXICOLOGICAL PROPERTIES

LEGEND: CBI - CONFIDENTIAL BUSINESS INFORMATION
2A - PRODUCT & CONTROLLED INGREDIENTS
PRODUCT: REGULAR UNLEADED GASOLINE MMT-FREE 100% VOL
CAS# : 8006-61-9 WHMIS CONTROLLED: YES
Rat Oral LD50 18800.0 mg/kg
Rabbit Dermal LD50 > 8000.0 mg/kg
BENZENE 1.0 - 5.0 % V(
CAS# : 71-43-2 WHMIS CONTROLLED: YES
Rat Oral LD50 > 5600.0 mg/kg
Inhal. LC50 13700.0 ppm 4.00 hrs

2B - TOXICOLOGICAL INFORMATION
RATIONALE FOR WHMIS TOXICITY CLASSIFICATION
Exposure may occur via inhalation, ingestion, skin absorption and skin or eye contact.
According to the International Agency for Research on Cancer (IARC) this product is considered to be possibly carcinogenic to humans.
This product contains benzene. Repeated exposure to benzene concentrations greater than the recommended TLV/TWA may reduce the cellular components of peripheral blood and bone marrow. Epidemiological studies indicate that long term inhalation of benzene vapour can cause leukaemia in man. Benzene has also produced chromosomal aberrations in peripheral blood lymphocytes.
Based on testing with similar materials, this product is not expected to be a primary skin irritant after exposure of short duration, would not be a skin sensitizer and would not be irritating to the eye.
Data is insufficient to further classify according to WHMIS criteria. See supplemental health information.
SUPPLEMENTAL HEALTH INFORMATION
Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Vapours are moderately irritating to the eyes and respiratory passages. Prolonged exposure to high vapour concentration can cause headache, dizziness, nausea, and central nervous system depression. Prolonged immersion in liquid may lead to chemical burns. The liquid when accidently aspirated into the lungs can cause a severe inflammation of the lung.

SECTION 3 EMERGENCY AND FIRST AID PROCEDURES

EYES
Flush eyes with water for at least 15 minutes while holding eyelids open. If irritation occurs and persists, obtain medical attention.
INHALATION
Remove victim from further exposure and restore breathing, if required. Obtain medical attention.
INGESTION
DO NOT INDUCE VOMITING] OBTAIN MEDICAL ATTENTION IMMEDIATELY. Guard against aspiration into lungs by having the individual turn on to their left side. If vomiting occurs spontaneously keep head below hips to prevent aspiration of liquid into the lungs.
SKIN
Start rinsing and remove contaminated clothing while rinsing. Wash contaminated skin with mild soap and water. If irritation occurs and persists, obtain medical attention.
NOTES TO PHYSICIAN
The main hazard following accidental ingestion is aspiration of the liquid into the lungs producing chemical pneumonitis. If more than 2.0 mL/kg has been ingested, vomiting should be induced with supervision. If symptoms such as

loss of gag reflex, convulsions or unconsciousness occur before vomiting, gastric lavage with a cuffed endotracheal tube should be considered.

SECTION 4 EMPLOYEE PROTECTION

THE FOLLOWING INFORMATION, WHILE APPROPRIATE FOR THIS PRODUCT, IS GENERAL IN NATURE. THE SELECTION OF PERSONAL PROTECTIVE EQUIPMENT WILL VARY DEPENDING ON THE CONDITIONS OF USE.

OCCUPATIONAL EXPOSURE LIMITS - VALID 1995/1996

Gasoline: 300 ppm, 890 mg/m3 (TLV/TWA) ACGIH
500 ppm,1480 mg/m3 (TLV/STEL) ACGIH

EYES AND FACE

Chemical safety goggles and/or full face shield to protect eyes and face, if product is handled such that it could be splashed into eyes. Provide an eyewash station in the area.

SKIN (HANDS, ARMS AND BODY)

Impervious gloves should be worn at all times when handling this product. PVC or nitrile rubber gloves recommended. In confined spaces or where the risk of skin exposure is much higher, impervious clothing should be worn. Safety showers should be available for emergency use.

RESPIRATORY

If exposure exceeds occupational exposure limits, wear a NIOSH- approved respirator. Use a chemical cartridge respirator (half mask or full-facepiece) with organic vapour cartridge. For high concentration use an atmosphere-supplied, positive pressure demand self-contained or airline breathing apparatus.

MECHANICAL VENTILATION

Use explosion-proof ventilation as required to control vapour concentrations. Concentrations in air should be maintained below lower explosive limit at all times or below the recommended threshold limit value if unprotected personnel are involved.

For personnel entry into confined spaces (i.e. bulk storage tanks) a proper confined space entry procedure must be followed including ventilation and testing of tank atmosphere.

Make up air should always be supplied to balance air exhausted (either generally or locally).

SECTION 5 PREVENTATIVE MEASURES

STORAGE AND HANDLING

Extremely flammable. Store in a cool, dry, well ventilated area, away from heat and ignition sources. Protect against physical damage to containers. Fixed equipment as well as transfer containers and equipment should be grounded to prevent accumulation of static charge. Avoid all direct contact with this material. Avoid prolonged or repeated inhalation of vapours. Vapours may accumulate and travel to distant ignition sources and flashback. Do not cut, drill, grind, weld or perform similar operations on or near containers. Do not use as a cleaning solvent. Never siphon by mouth. Empty containers are hazardous, may contain flammable/explosive dusts, residues or vapours. Launder contaminated clothing prior to reuse. Wash with soap and water prior to

eating, drinking, smoking or using toilet facilities.

SPILL AND LEAK HANDLING PROCEDURES

Issue warning "Flammable". Eliminate all ignition sources. Isolate hazard area and restrict access. Handling equipment must be grounded. Try to work upwind

of spill. Avoid direct contact with material. Wear appropriate breathing apparatus (if applicable) and protective clothing. Stop leak only if safe to do so. Dike and contain land spills; contain water spills by booming. Use water fog to knock down vapours; contain runoff. Absorb residue or small spills with absorbent material and remove to non-leaking containers for disposal. Recommended materials: Clay or Sand Flush area with water to remove trace residue. Dispose of recovered material as noted below.

WASTE DISPOSAL METHODS

Waste management priorities(depending on volumes and concentration of waste) are: 1. recycle(reprocess), 2. energy recovery(cement kilns, thermal power generation), 3. incineration, 4. disposal at a licenced waste disposal facility. Do not attempt to combust waste on-site. Incinerate at a licenced waste disposal site with approval of environmental authority.

SECTION 6 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE

Liquid

ODOUR AND APPEARANCE

Typical Gasoline Odour Clear

AVERAGE ODOUR THRESHOLD	:	> 0.25 ppm
BOILING POINT (DEG C)	:	35 - 220
FREEZING POINT (DEG C)	:	NOT AVAILABLE
DENSITY (KG/M3 @ DEG C)	:	750.00 - 850.00 @ 15
VAPOUR DENSITY (AIR=1)	:	3.5
VAPOUR PRESSURE (MMHG @ DEG C)	:	NOT AVAILABLE
SPECIFIC GRAVITY (H2O=1)	:	NOT AVAILABLE
PH LEVEL	:	NOT AVAILABLE
VISCOSITY (CST @ DEG C)	:	< 1.00 @ 38
EVAPORATION RATE (NBUAC=1)	:	NOT AVAILABLE
PARTITION COEFFICIENT (KOW)	:	2.00
WATER SOLUBILITY	:	Insoluble
OTHER SOLVENT	:	Hydrocarbon Solvents
MOLECULAR WEIGHT (G)	:	NOT AVAILABLE
FORMULA	:	MIXTURE OF C4-C11 HYDROCARBONS

SECTION 7 REACTIVITY, FIRE AND EXPLOSION HAZARD

7A - FIRE AND EXPLOSION HAZARD

FLASH POINT (DEG C) AND METHOD:

-30 Tag Closed Cup

FLAMMABLE LIMITS / % VOLUME IN AIR

LFL: 1.4 UFL: 7.6

AUTOIGNITION TEMP. (DEG C):

280

EXTINGUISHING MEDIA

Dry Chemical

Carbon Dioxide

Foam

Water Fog

SPECIAL FIRE-FIGHTING PROCEDURES

Extremely flammable. Do not enter confined fire space without adequate protective clothing and an approved positive pressure self-contained breathing apparatus. Do not use water except as a fog. Product will float and can be reignited on surface of water. Containers exposed to intense heat from fires should be cooled with water to prevent vapour pressure buildup which could

result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure.

7B - REACTIVITY DATA

HAZARDOUS COMBUSTION / DECOMPOSITION PRODUCTS

Vapour forms a flammable/explosive mixture with air between upper and lower flammable limits. Vapours may travel along ground and flashback along vapour trail may occur.

Nitrogen oxides, carbon monoxide, carbon dioxide and unidentified organic compounds may be formed during combustion.

INCOMPATIBILITY

Strong oxidizing agents.

CONDITIONS OF REACTIVITY/INSTABILITY

Avoid excessive heat, open flames and all ignition sources.

STABLE :	YES	SENSITIVITY TO MECHANICAL IMPACT :	NO
HAZARDOUS POLYMERIZATION:	NO	SENSITIVITY TO STATIC DISCHARGE :	YES

SECTION 8 ENVIRONMENTAL DATA

REGULATIONS AND STANDARDS

No Canadian federal standards. This product, or all components, are listed on the Domestic Substances List, as required under the Canadian Environmental Protection Act.

ENVIRONMENTAL EFFECTS AND HAZARDS

Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams, or public waterways. Block off drains and ditches. Provincial regulations require and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities. May be harmful to aquatic life. Fish Toxicity: 5 to 40 ppm ! 96 hr TLm ! Rainbow Trout ! Freshwater

BIODEGRADABILITY

Not readily biodegradable. Potential for bioaccumulation. Rapid volatilization.

SECTION 9 LABEL INFORMATION

ITT TRADE NAME: REGULAR UNLEADED GASOLINE MMT-FREE

WHMIS DESCRIPTION

Class B2 Flammable Liquid

Class D2A Other Toxic Effects - Carcinogen

HAZARD STATEMENTS

Flammable Liquid. May cause cancer.

SAFE HANDLING

Eliminate all ignition sources. Wear suitable gloves and eye protection. Bond and ground transfer containers and equipment to avoid static accumulation. Avoid prolonged exposure to vapours. Empty containers are hazardous, may contain flammable / explosive dusts, liquid residue or vapours. Keep away from sparks and open flames.

FIRST AID

Wash contaminated skin with soap and water. Flush eyes with water. If overcome by vapours remove to fresh air. Do not induce vomiting. Obtain medical attention.

SECTION 10 PREPARATION AND SUPPLEMENTAL INFORMATION

10A - PREPARATION INFORMATION

PREPARED BY: TOXICOLOGY AND MATERIAL SAFETY SECTION OF SHELL CANADA LIMITED

MSDS EFFECTIVE DATE: 1994/11/15 SUPERCEDES MSDS DATED: 1994/10/06

10B - SUPPLEMENTAL INFORMATION

REVISIONS

- The status of Shell products with respect to the Domestic Substances List will be provided in Section 8, as the information becomes available.

REF.011994111599

* *
* M S D S *
* Canadian Centre for Occupational Health and Safety *
* * * * * * * * * * * * * * Issue : 97-1 (February, 1997) *

*** IDENTIFICATION ***

MSDS RECORD NUMBER : 969222
PRODUCT NAME(S) : MOTOR OILS (ALL GRADES), HYDRAULIC OILS, GEAR OILS, TRANSMISSION FLUIDS
PRODUCT IDENTIFICATION : DATA SHEET NO: 0170829-007
DATE OF MSDS : 1992-12-09

*** MANUFACTURER INFORMATION ***

MANUFACTURER : VALVOLINE, INC
ADDRESS : Post Office Box 14000
Lexington Kentucky
U.S.A. 40512
Telephone: 606-357-7000
EMERGENCY TELEPHONE NO. : 606-324-1133 (24-HOUR, LOCATED AT ASHLAND, KENTUCKY

*** MATERIAL SAFETY DATA ***

MOTOR OILS (ALL GRADES), HYDRAULIC OILS, GEAR OILS, TRANSMISSION FLUIDS

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD) IN ADDITION TO WHMIS

PRODUCT NAME: MOTOR OILS, HYDRAULIC OILS, GEAR OILS, TRANSMISSION FLUIDS

DATA SHEET NO: 0170829-007
PREPARED: 12/09/92
SUPERSEDES: 01/01/90

SECTION I - PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: PETROLEUM BASED-LUBRICATING OIL
DOT HAZARD CLASSIFICATION: NOT APPLICABLE
NOT CONTROLLED PRODUCTS UNDER WHMIS

SECTION II - COMPONENTS

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS SECTION.

SEE DEFINITION PAGE FOR CLARIFICATION

INGREDIENT	% (BY WT)	NOTE
NO REGULATED COMPONENTS.		

SECTION III - PHYSICAL DATA

PROPERTY	REFINEMENT	MEASUREMENT
BOILING POINT	FOR COMPONENT	> 425.00 DEG F (218.33 DEG C) @ 760.00 MMHG
VAPOR PRESSURE	NOT APPLICABLE	
SPECIFIC VAPOR DENSITY		HEAVIER THAN AIR
SPECIFIC GRAVITY		<1 @ 60.00 DEG F (15.55 DEG C)
PERCENT VOLATILES	NOT APPLICABLE	
EVAPORATION RATE		SLOWER THAN ETHER
APPEARANCE		NOT SPECIFIED
STATE		LIQUID
FORM		HOMOG SOLN
COEFFICIENT OF WATER/OIL	DISTRIBUTION	UNKNOWN
ODOUR/ODOUR THRESHOLD		PETROLEUM ODOUR/UNKNOWN

SECTION IV - FIRE AND EXPLOSION INFORMATION

FLASH POINT > 400.0 DEG F
(204.4 DEG C)

EXPLOSIVE LIMIT UNAVAILABLE

AUTOIGNITION TEMPERATURE UNKNOWN

EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WHEN FIGHTING FIRES.
WATER OR FOAM MAY CAUSE FROTHING WHICH CAN BE VIOLENT AND POSSIBLY ENDANGER THE LIFE OF THE FIREFIGHTER, ESPECIALLY IF SPRAYED INTO CONTAINERS OF HOT, BURNING LIQUID.

SPECIAL FIRE & EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

NFPA CODES: HEALTH- 1 FLAMMABILITY- 1 REACTIVITY- 0

SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LIMIT: NOT ESTABLISHED FOR PRODUCT. SEE SECTION II.

EFFECTS OF ACUTE OVEREXPOSURE: FOR COMPONENT

TOXICOLOGICAL TESTING INDICATES THAT SIMILAR PRODUCTS ARE NOT HAZARDOUS AS DEFINED BY OSHA (29 CFR 1910.1200).
LD50 FOR PRODUCT >5G/KG (ORAL-RAT)

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.
IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.
IF SWALLOWED: DO NOT INDUCE VOMITING, KEEP PERSON WARM AND QUIET, AND GET MEDICAL ATTENTION.
IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

SECTION VI - REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR
STABILITY: STABLE
INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS.

SECTION VII - SPILL OR LEAK PROCEDURES

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

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.
LARGE SPILL: PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURRED.

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.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.
LARGE SPILL: DESTROY BY LIQUID INCINERATION.
CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

SECTION VIII - PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.
VENTILATION: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.
PROTECTIVE GLOVES: NOT NORMALLY REQUIRED.
EYE PROTECTION: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.
OTHER PROTECTIVE EQUIPMENT: NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS

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 THIS DATASHEET MUST BE OBSERVED.

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

Material Safety Data/Fiche signalétique

POLY-DRILL DRILLING
1824 - 104 AVENUE, S.W.
CALGARY, ALBERTA, CANADA T2W 0A8
TEL. (403) 259-5112 FAX (403) 255-7185

EMERGENCY (403) 259-5112

I. PRODUCT IDENTIFICATION

Trade Name(s): 1330/133X
WHMIS CLASSIFICATION: Non regulated
TDG Classification: Non dangerous goods
Manufacturer: Poly-Drill Drilling

II. PHYSICAL DATA

Boiling Point: Not available
Solubility in Water: Solubility limited by solution viscosity
Density(g/ml): 1.08 at 25 C
Appearance and Odor: Blue. Odor slight.

Specific Gravity(@ 25 Deg.C): 1.09
pH: 8.1 (1% concentration)
Physical state: Liquid

III. FIRE AND EXPLOSION DATA

Flash Point (Method used): (PMCC) >100 C
Conditions of flammability: Intense heat, open flame.
Hazardous combustion products: Products of incomplete hydrocarbon combustion.
Upper and Lower flammable limits: Not available.
Extinguishing media: Use foam, dry chemical, CO2.

IV. REACTIVITY

Chemical stability: Stable under normal conditions
Hazardous Polymerization: Will not occur
Incompatible substances: Avoid strong oxidizers(e.g. chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, permanganates) may generate heat, fires, explosions and toxic vapors.
Hazardous decomposition products: Carbon monoxide, carbon dioxide, and products of incomplete hydrocarbon combustion.

V. HEALTH HAZARD DATA

Routes of Exposure and Effects:

SKIN: Slight irritant. Prolonged contact may cause skin irritation or dermatitis in some individuals.
EYE: Slight to moderate transient eye irritation.
INHALATION: Not a likely route of exposure. High vapor concentrations may cause dizziness or nausea.
INGESTION: can cause nausea, vomiting, cramps, diarrhea.

Exposure limits: TLV-TWA: Mineral oil, mist 5 mg/m3
Carcinogenicity: None of the components of this product are listed as carcinogens by IARC and ACGIH.
Sensitization of product: Not suspected to be a sensitizer.
Teratogenicity: Not available
Mutagenicity: Not available

VI. EMERGENCY AND FIRST AID PROCEDURES

SKIN: Wash exposed area with soap and water. If irritation or abnormalities persist, call a physician.
EYE: Immediately flush eyes with water for 15 minutes, if irritation or abnormalities persist, call a physician.
INHALATION: Remove to fresh air. If breathing is difficult, give oxygen and call a physician.
INGESTION: Do not induce vomiting. Call a physician immediately.

VII. HANDLING AND USE PRECAUTIONS

Storage requirements: Keep container closed when not in use. Store in a cool dry location away from oxidizing and reducing agents.
Waste Disposal: Product should be disposed of in accordance with applicable local, Provincial, and Federal regulations.
Steps must be taken is product is released or spilled. Clean spill areas thoroughly to avoid hazardous slippery conditions.

VII. INDUSTRIAL HYGIENE CONTROL MEASURES

Respiratory Protection: None normally required.
Ventilation: If mist and/or vapors are present, use air-purifying respirator of self-contained breathing apparatus, but rarely required.
Eye Protection: Safety glasses if personally preferred.
Gloves: Generally not necessary. Personal preference.

DEPARTMENT OF TRANSPORTATION INFORMATION

Shipping Name: Drilling Mud
Hazard Class: Not hazardous
Hazardous Substances: None
Cautionary Labeling: None required.