



# MATERIAL SAFETY DATA SHEET

MSDS NUMBER: 504-991

## SECTION 1 PRODUCT IDENTIFICATION

**TRADE NAME: LINSEED SOAP**

**MANUFACTURER/SUPPLIER'S NAME:** SHELL CANADA LIMITED  
**ADDRESS:** P.O. Box 100, Station M  
400 - 4th AVE. S.W.  
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**  
Lubricating Grease

**PRODUCT USE**  
Lubricating Grease

### WHMIS CLASS AND DESCRIPTION

THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

### CANADIAN TDG DESCRIPTION (ROAD & RAIL)

**SHIPPING NAME:**

**CLASS DESCRIPTION:**

**PACKING GROUP:**

**UN NUMBER:** THIS PRODUCT IS NOT REGULATED UNDER TDG

## SECTION 2 CONTROLLED INGREDIENTS & TOXICOLOGICAL PROPERTIES

**LEGEND:** CBI - CONFIDENTIAL BUSINESS INFORMATION

### 2A - PRODUCT & CONTROLLED INGREDIENTS

**PRODUCT:** LINSEED SOAP  
**CAS# :**

**WHMIS CONTROLLED:** NO

**100% VOL**



LINSEED SOAP

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**2B - TOXICOLOGICAL INFORMATION****RATIONALE FOR WHMIS TOXICITY CLASSIFICATION**

Exposure may occur via inhalation, ingestion, skin absorption and skin or eye contact.

This product is not a primary skin irritant after exposure of short duration, is not a skin sensitizer and is not irritating to the eye.

Data is insufficient to further classify according to WHMIS criteria.

**SUPPLEMENTAL HEALTH INFORMATION**

Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Inhalation of oil mist or vapours from hot grease may cause irritation of the upper respiratory tract. Long term intensive exposure to oil mist may cause benign lung fibrosis.

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**SECTION 3 EMERGENCY AND FIRST AID PROCEDURES**

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**EYES**

Flush eyes with water for at least 15 minutes while holding eyelids open. Obtain medical attention as soon as possible after first aid has been initiated and completed.

**INHALATION**

Remove victim from further exposure. Additional first aid treatment is not ordinarily required.

**INGESTION**

Do not induce vomiting. Obtain medical attention immediately.

**SKIN**

Wipe excess from skin. Wash contaminated skin with mild soap and water.

**NOTES TO PHYSICIAN**

None Identified

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**SECTION 4 PERSONAL PROTECTIVE EQUIPMENT**

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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 1996/1997**

North American exposure limits have not been established for the product. Consult local authorities for acceptable provincial values.

**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.

**SKIN (HANDS, ARMS AND BODY)**

Impervious gloves (viton, nitrile, PVC, neoprene) should be worn at all times when handling this product. Impervious clothing (apron, coveralls) should also be worn in confined workspaces or where the risk of skin exposure is much higher.



LINSEED SOAP

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**RESPIRATORY**

Not normally needed.

**MECHANICAL VENTILATION**

Mechanical ventilation is recommended for all indoor situations to control fugitive emissions.

Local ventilation is recommended if oil mist is present or if exposure limit is exceeded.

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

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**SECTION 5 PREVENTATIVE MEASURES**

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**STORAGE AND HANDLING**

Store in a cool, dry, well ventilated area, away from heat and ignition sources. Avoid excessive heat, formation of oil mist, breathing of vapours and mist of hot oil and prolonged or repeated contact with skin. Launder contaminated clothing prior to reuse. Properly dispose of contaminated leather articles, including shoes, that cannot be decontaminated.

**SPILL AND LEAK HANDLING PROCEDURES**

Spilled material is slippery. Isolate hazard area and restrict access. Wear appropriate breathing apparatus (if applicable) and protective clothing. Stop leak only if safe to do so. Contain a land spill by diking. For large spills remove by mechanical means and place in containers. Clean area with appropriate cleaner. Dispose of recovered material as noted below. Notify appropriate environmental agency(ies).

**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.

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**SECTION 6 PHYSICAL AND CHEMICAL PROPERTIES**

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**PHYSICAL STATE**

Semi-Solid Paste

**ODOUR AND APPEARANCE**

Slight Hydrocarbon Odour Brown Colour

AVERAGE ODOUR THRESHOLD	:	NOT AVAILABLE
BOILING POINT (DEG C)	:	100
FREEZING POINT (DEG C)	:	NOT AVAILABLE
DENSITY (KG/M3 @ DEG C)	:	NOT AVAILABLE
VAPOUR DENSITY (AIR=1)	:	NOT AVAILABLE
VAPOUR PRESSURE (MMHG @ DEG C):	:	NOT AVAILABLE
SPECIFIC GRAVITY (H2O=1)	:	1.00
PH LEVEL	:	9.5



LINSEED SOAP

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VISCOSITY (CST @ DEG C)	:	NOT AVAILABLE
EVAPORATION RATE (NBUAC=1)	:	NOT AVAILABLE
PARTITION COEFFICIENT (KOW)	:	NOT AVAILABLE
WATER SOLUBILITY	:	Soluble
OTHER SOLVENT	:	None Identified
MOLECULAR WEIGHT (G)	:	NOT AVAILABLE
FORMULA	:	NOT AVAILABLE

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## SECTION 7 REACTIVITY, FIRE AND EXPLOSION HAZARD

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### 7A - FIRE AND EXPLOSION HAZARD

FLASH POINT (DEG C) AND METHOD:  
NOT APPLICABLE

FLAMMABLE LIMITS / % VOLUME IN AIR  
NOT APPLICABLE  
AUTOIGNITION TEMP. (DEG C):  
NOT APPLICABLE

#### EXTINGUISHING MEDIA

Dry Chemical  
Carbon Dioxide  
Foam  
Water Fog

#### SPECIAL FIRE-FIGHTING PROCEDURES

No special procedures - Avoid inhalation of smoke. Caution, spilled material is slippery. Use water to cool fire exposed containers.

### 7B - REACTIVITY DATA

HAZARDOUS COMBUSTION / DECOMPOSITION PRODUCTS  
None currently known.

#### INCOMPATIBILITY

None Identified

#### CONDITIONS OF REACTIVITY/INSTABILITY

Avoid excessive heat, formation of vapours or mists.

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

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## SECTION 8 ENVIRONMENTAL DATA

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### REGULATIONS AND STANDARDS

No Canadian federal standard; however, for general discharge guidance, federal installations limited to 15 mg/L for total oil and grease. Provincial criteria are likely and should be requested when notifying provincial authorities. This product, or all components, are listed on the Domestic Substances List, as required under the Canadian Environmental Protection Act.

# Material Safety Data / Fiche signalétique

**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**

**TRADE NAME:** **ULTRA-VIS**  
**PRODUCT USE:** Drilling Fluid Additive  
**CHEMICAL FAMILY:** Polysaccharide Suspension

**WORK PLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)**

**WHMIS CLASSIFICATION:** B-3, D-2B  
**WORK PLACE HAZARD:** Combustible Liquid, Severe Eye Irritant

**TRANSPORTATION OF DANGEROUS GOODS (TDG)**

**TDG CLASSIFICATION:** Not Dangerous Goods  
**PACKAGE GROUP:** Not Applicable  
**PRODUCT IDENTIFICATION NUMBER (PIN):** Not Applicable

**SECTION II: HAZARDOUS INGREDIENTS**

Ingredient	Percent	CAS Number	LD <sub>50</sub> (oral rat)	LC <sub>50</sub> (dermal rabbit)
Ethoxylated nonyl phenol	3-7	68412-54-4	5100 mg/kg	not determined
Light Distillate, hydrotreated	30-60	64742-47-8	>5g/kg	>3g/kg

**SECTION III: HEALTH HAZARDS****ROUTE OF ENTRY:** [XX] SKIN [XX] EYE CONTACT [XX] INHALATION [XX] INGESTION**THRESHOLD LIMIT VALUE:** 300 ppm for light distillate**EFFECTS OF EXPOSURE:****INHALATION:** High vapour concentrations are irritating to the eyes and the respiratory tract and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death.**SKIN:** Irritant. Low acute dermal toxicity. Can cause redness, irritation, inflammation on prolonged contact.**EYE:** Severe irritant. Can cause redness, irritation and tissue destruction.**INGESTION:** Low oral toxicity. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause mild to severe pulmonary injury and possibly death.**SECTION IV: FIRST AID MEASURES****SKIN CONTACT:** Flush skin with soap and water for five minutes after contact. Seek medical attention if irritation develops or persists. Wash contaminated clothing before reuse.**EYE CONTACT:** Flush eyes immediately with water for at least 15 minutes. Seek medical attention.**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep at rest. Seek medical attention.**INGESTION:** If swallowed, do not induce vomiting. Keep at rest. Seek medical attention.**SECTION V: PHYSICAL DATA**

**APPEARANCE AND ODOR:** Opaque dark beige liquid, little odour  
**SPECIFIC GRAVITY:** 0.95  
**BOILING POINT (°C):** 184 - 212° C  
**MELTING POINT (°C):** Not Determined  
**SOLUBILITY IN WATER:** Insoluble

**WESTCOAST DRILLING SUPPLIES LTD.**

8088 River Way Delta, British Columbia, Canada V4G 1L3  
Phone: (604) 940-8050 • Fax: (604) 940-8080  
Toll Free: 1-800-555-8845

**ULTRA-VIS**

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pH:	Not applicable
PERCENT VOLATILE BY VOLUME:	Not Determined
EVAPORATION RATE:	0.1 approximate
VAPOUR PRESSURE (mm Hg):	0.147 kPa @ 20° C
VAPOUR DENSITY (Air = 1):	5.4

**SECTION VI: FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT:	64° C
FLAMMABLE LIMITS:	1.4-9.3% by volume
EXTINGUISHING MEDIA:	CO <sub>2</sub> ; Foam; Dry Chemical; Water Spray
SPECIAL FIRE FIGHTING PROCEDURES:	Use full protective equipment and self contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Forms slippery compound when mixed with water

**SECTION VII: REACTIVITY DATA**

STABILITY:	Stable [XX]    Unstable [ ]
INCOMPATIBILITY (conditions to avoid):	Strong oxidizers, acids
HAZARDOUS DECOMPOSITION PRODUCTS:	CO <sub>2</sub> smoke on combustion
HAZARDOUS POLYMERIZATION:	Will not Occur [XX] May Occur [ ]

**SECTION VIII: PREVENTIVE MEASURES****SPECIAL PROTECTION INFORMATION**

RESPIRATORY PROTECTION:	Use NIOSH/MSHA approved respiratory product when airborne exposure exceeds TLV
VENTILATION:	General mechanical
PROTECTIVE GLOVES:	Suggest gloves
EYE PROTECTION:	Suggest goggles
OTHER PROTECTIVE EQUIPMENT:	(Specify)

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Avoid ingestion. Practice reasonable caution and personal cleanliness. Avoid skin and eye contact. Store in cool well ventilated area.

**STEPS TO BE TAKEN IN CASE THE MATERIAL IS SPILLED OR RELEASED**

(Use appropriate safety equipment) Small spills, recover material; return recovered material to plant.

**WASTE DISPOSAL METHOD**

Incinerate/dispose to conform with local disposal regulations.

**SECTION IX: PREPARATION**

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

REVISED: September 1, 1997

BY: Product Safety Committee

PHONE: 403-279-8545

## TORQUELESS

The ULTIMATE rotary and diamond drilling product for in hole torque reducing, protecting against rod wear, preventing rust, and extending bit life.

**TORQUELESS** is not just another soluble lube, it pays its way.

**TORQUELESS** has produced both bit-life and penetration rate increases of 25% plus, during diamond drilling operations.

**TORQUELESS** is based on an environmentally safe technology which has proven to be effective in lubricating down-hole consumables over the past 5 - 7 years.

**TORQUELESS** is non-sheening when accidentally introduced into a water course.

**TORQUELESS** is extremely effective for lubricating both down-hole hammers and protecting against drill pipe wear during horizontal drilling (eliminating the need for rock drill oil).

**TORQUELESS** protects drill rod wear when using wedges in diamond drilling.

**TORQUELESS** increases tool joint life by reducing torque in the hole.

**TORQUELESS** will enhance the effectiveness of powdered mud systems (bentonites, polymers, or pac's). Combined with the appropriate fluids and mixing systems, **Torqueless** will reduce stuck drill rods and lost casing in squeezing ground conditions.

**Mixing Ratios:** 1-100 to 1-300 depending upon drilling conditions and hole depth.

**Material Safety Data Sheet**

TORQUELESS

## =====

**Material Identification and Use**

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MANUFACTURER'S NAME..... Control Chemical (1989) Corporation  
MANUFACTURER'S ADDRESS..... 7016 30 Street SE  
Calgary, Alberta, Canada  
T2C 1N9  
EMERGENCY PHONE NUMBER..... 403-720-7044  
SUPPLIER IDENTIFIER.....  
SUPPLIER'S ADDRESS.....  
SUPPLIER EMERGENCY PHONE NUMBER.....  
PRODUCT IDENTIFIER..... TORQUELESS  
PRODUCT USE.....

## =====

**Hazardous Ingredients of Materials**

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Chemical Identity	Concentration	CAS#/NA#/UN#	LD(50)	LC(50)
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This is not a WHMIS  
controlled product.

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**Physical Data For Product**

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PHYSICAL STATE..... Liquid  
ODOUR AND APPEARANCE..... Dark Brown, Distinctive  
ODOUR THRESHOLD.....  
SPECIFIC GRAVITY..... .887  
VAPOUR PRESSURE..... N/E  
VAPOUR DENSITY (air=1)..... N/E  
EVAPORATION RATE..... N/E  
BOILING POINT..... >300 degrees C  
FREEZING POINT..... -25 degrees C  
pH..... 7 - 7.5  
DENSITY (g/ml).....  
COEFFICIENT OF WATER/OIL..... N/A  
DISTRIBUTION.....

## =====

**Fire and Explosion Hazard of Product**

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CONDITIONS OF FLAMMABILITY.....  
MEANS OF EXTINCTION..... Foam, CO2, Dry Chemical, water spray



**Material Safety Data Sheet****TORQUELESS**

FLASHPOINT AND METHOD OF DETERMINATION..... 290 degrees C C.C.  
UPPER EXPLOSION LIMIT(% BY VOL) . N/A  
LOWER EXPLOSION LIMIT(% BY VOL) . N/A  
AUTO-IGNITION TEMPERATURE..... N/A  
FLAMMABILITY CLASSIFICATION.....  
HAZARDOUS COMBUSTION PRODUCTS... N/A  
EXPLOSION DATA..... N/A  
SENSITIVITY TO STATIC DISCHARGE. None

**Reactivity Data**

CHEMICAL STABILITY..... Stable  
INCOMPATIBLE MATERIALS..... None  
CONDITIONS OF REACTIVITY..... None  
HAZARDOUS DECOMPOSITION PRODUCTS If burnt, oxides of sulphur.

**Toxicological Properties of Product****ROUTES OF ENTRY**

SKIN CONTACT..... Wash with soap and water  
SKIN ABSORPTION..... None  
EYE..... Flush with water for 15 minutes  
INHALATION..... No hazard during normal use.  
INGESTION..... Do not induce vomiting, contact physician.  
toxic/.

ACUTE OVER EXPOSURE EFFECTS..... Inhalation: Not hazardous unless burning tox  
fumes possible. Ingestion: Greater than 5000  
mg/kg in rats. Eyes: Eye irritation not  
expected. Skin: No skin irritation or  
allergic reaction expected.

CHRONIC OVER EXPOSURE EFFECTS... Inhalation: Not hazardous unless burning tox  
fumes possible. Ingestion: Greater than 5000  
mg/kg in rats. Eyes: Eye irritation not  
expected. Skin: No skin irritation or  
allergic reaction expected.

EXPOSURE LIMITS..... N/A  
IRRITANCY OF PRODUCT..... Not irritant  
SENSITIZATION TO MATERIAL..... None  
CARCINOGENICITY, REPRODUCTIVE  
EFFECTS..... N/A  
MUTAGENICITY, TERATOGENICITY.... N/A

**Material Safety Data Sheet**

TORQUELESS

TOXICOLOGICALLY SYNERGISTIC N/A  
PRODUCTS.....

**Preventive Measures**

PERSONAL PROTECTIVE EQUIPMENT... Not Necessary  
SPECIFIC ENGINEERING CONTROLS...  
LEAK AND SPILL PROCEDURES..... Although product is environmentally safe,  
spills should be contained and wiped up.  
WASTE DISPOSAL..... Although product is environmentally safe,  
spills should be contained and wiped up.  
Dispose according to Federal, Provincial or  
State Laws.  
HANDLING PROCEDURES AND None  
EQUIPMENT.....  
STORAGE REQUIREMENTS..... None  
SPECIAL SHIPPING INFORMATION... None

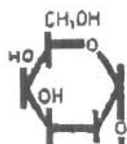
**First Aid Measures**

SPECIFIC FIRST AID PROCEDURES... Eyes: Flush with water for 15 minutes  
Ingestion: Do not induce vomiting, contact  
physician. Not toxic.  
Skin: Wash with soap and water.

**Preparation Date of Material Safety Data Sheet**

PREPARED BY..... Safety Committee  
PHONE NUMBER OF PREPARER..... 403-720-7044  
DATE PREPARED..... January 01, 1997

The information contained herein is based on data believed to be reliable, but is presented without guarantee or warranty and Control Chemical (1989) Corporation disclaims any liability incurred from the use thereof.



## Poly-Drill Drilling Systems

1824 - 104 Avenue, S.W.  
Calgary, Alberta, Canada  
T2W-OA8  
(403) 259-5112 FAX (403) 255-7185

# MATERIAL SAFETY DATA SHEET/FICHE SIGNALÉTIQUE

## Section 1—PRODUCT IDENTIFICATION

PRODUCT TRADE NAME(S): Poly Drill CLAY TREAT II

## SECTION 2—COMPOSITION

## SECTION 3—PHYSICAL DATA

Boiling Point: 100 C  
Solubility in Water: Soluble  
Density (g/ml): 1.1  
Appearance and Odor: Red. Characteristic slight odor.

Specific Gravity (@ 25 Deg.C.): 1.09  
pH: 5.0 - 7.0 (1.0% solution)  
Physical State: Liquid

## SECTION 4—FIRE AND EXPLOSION DATA

Flash Point: >93.3 C  
Conditions of flammability: Will burn after drying  
Hazardous combustion products: Oxides of carbon and nitrogen and products of incomplete combustion.  
Upper and Lower flammable limits: Not available  
Extinguishing media: Use water spray, foam, dry chemical, or carbon dioxide.

## SECTION 5—REACTIVITY

Chemical stability: Stable under normal conditions.  
Hazardous Polymerization: Will not occur.  
Incompatible substances: Avoid strong oxidizing and reducing agents.  
Hazardous decomposition products: Not available.

## SECTION 6—HEALTH HAZARD DATA

TOXICITY RATING: Practically non-harmful.

Routes of Exposure and Effects:

SKIN: Slight irritant: prolonged contact may cause skin irritation or dermatitis in some individuals

EYE: No effects of exposure expected with the exception of possible irritation.

INHALATION: If misted, no effects of exposure are expected.

Exposure limits: Contains trace acrylamide (SKIN). Exposure limit, TWAEV=0.03 mg/m(ONT. Reg. 654/86).

Contains traces of isopropanol. Exposure limit, TWAEV=400ppm, STEV=500ppm(ONT. Reg. 654/86).

Carcinogenicity: This product contains traces of acrylamide. Acrylamide is listed by IARC(Group 2B) and ACGIH(Group A2) as a possible human carcinogen.

Teratogenicity: Not available.

Mutagenicity: Not available.

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**SECTION 7—EMERGENCY AND FIRST AID PROCEDURES**

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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 becomes difficult, give oxygen and call a physician.  
INGESTION: Do not induce vomiting: Call a physician immediately.

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**SECTION 8—HANDLING AND USE PRECTIONS**

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Storage requirements: keep container closed when no 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 if product is released or spilled: clean spill areas thoroughly to avoid hazardous slippery conditions.

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**SECTION 9—INDUSTRIAL HYGIENE CONTROL MEASURES**

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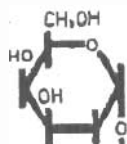
Respiratory Protection: None normally required.  
Ventilation: If mist and/or vapors are present, use air purifying respirator or self-contained breathing apparatus, but this is rarely required.  
Eye Protection: Safety glasses, if personally preferred  
Gloves: Generally not necessary. Personal preference.

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**SECTION 11—DEPARTMENT OF TRANSPORTATION INFORMATION**

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



## • Poly-Drill Drilling Systems

• 1824 - 104 Avenue, S.W.  
• Calgary, Alberta, Canada  
• T2W-OA8  
• (403) 259-5112 FAX (403) 255-7185

## MATERIAL SAFETY DATA SHEET/FICHE SIGNALÉTIQUE

### Section 1—PRODUCT IDENTIFICATION

PRODUCT TRADE NAME(S): Poly Drill O.B.X.  
TDG Classification: Non dangerous goods

WHMIS CLASSIFICATION: Non-regulated

### SECTION 2—COMPOSITION

A liquid polymer: Evaluation of the ingredient(s) has found no ingredient(s) hazardous as per WHMIS regulations.

### SECTION 3—PHYSICAL DATA

Boiling Point: Not available

Solubility in Water: disperses in water(forms viscous, slippery solution).

Density (g/ml): Not available

Appearance and Odor: Brown. Odor slight.

Specific Gravity: 0.9 g/cm

pH: 3.8 (1% concentration)

Physical State: Liquid

### SECTION 4—FIRE AND EXPLOSION DATA

Flash Point (method used): (PMCC) greater than 100 C.

Conditions of flammability: Very low risk.

Hazardous combustion products: None known.

Upper and Lower flammable limits: Not available.

Extinguishing media: Carbon dioxide, dry chemicals, foam, in preference to water spray

### SECTION 5—REACTIVITY

Chemical stability: Stable under normal conditions.

Hazardous Polymerization: Will not occur.

Incompatible substances: Avoid strong oxidants such as liquid chlorine, concentrated oxygen, sodium or calcium hypochloride.

Hazardous decomposition products: None known

### SECTION 6—HEALTH HAZARD DATA

TOXICITY RATING: Practically non-harmful.

Routes of Exposure and Effects:

SKIN: Slight irritant: prolonged contact may cause skin irritation or dermatitis in some individuals

EYE: No effects of exposure expected with the exception of possible irritation.

INHALATION: Due to low volatility of mineral distillates a small inhalation hazard exists.

INGESTION: can cause nausea, vomiting, cramps, diarrhea

Chronic exposure limits: None

Sensitization of product: Not suspected to be a sensitizer.

Teratogenicity: Not available.

Mutagenicity: Not available.

Carcinogenicity: None of the components of this product are listed as carcinogens by IARC and ACGIH

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**SECTION 7—EMERGENCY AND FIRST AID PROCEDURES**

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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 becomes difficult, give oxygen and call a physician.

INGESTION: Do not induce vomiting. Call a physician immediately.

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**SECTION 8—HANDLING AND USE PRECTIONS**

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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 if product is released or spilled: clean spill areas thoroughly to avoid hazardous slippery conditions.

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**SECTION 9—INDUSTRIAL HYGIENE CONTROL MEASURES**

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Respiratory Protection: None normally required.

Ventilation: If mist and/or vapors are present, use air purifying respirator or self-contained breathing apparatus, but this is rarely required.

Eye Protection: Safety glasses, if personally preferred

Gloves: Generally not necessary. Personal preference.

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**SECTION 10—TOXICOLOGICAL PROPERTIES**

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Environmental Effects: Not known to be harmful to aquatic life at low concentrations.

Freshwater aquatic toxicity rating: 96 hour LC50 Rainbow Trout = 160 mg/L

96 hour LC50 Salmon = 160 mg/L

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**SECTION 11—DEPARTMENT OF TRANSPORTATION INFORMATION**

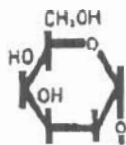
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Shipping Name: Drilling Mud

Hazard Class: Not hazardous

Hazardous Substances: None

Cautionary Labeling: None required



## Poly-Drill Drilling Systems

1824 - 104 Avenue, S.W.  
Calgary, Alberta, Canada  
T2W-OA8  
(403) 259-5112 FAX (403) 255-7185

# MATERIAL SAFETY DATA SHEET/FICHE SIGNALÉTIQUE

### Section 1—PRODUCT IDENTIFICATION

PRODUCT TRADE NAME(S): Poly Drill 133X/1330

PRODUCT DESCRIPTION: Latex  
polyelectrolyte

### SECTION 2—COMPOSITION

A liquid polymer: Evaluation of the ingredient(s) has found no ingredient(s) hazardous as per WHMIS regulations.

### SECTION 3—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 (1.0% solution)  
Physical State: Liquid

### SECTION 4—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 water spray, foam, dry chemical, or carbon dioxide.

### SECTION 5—REACTIVITY

Chemical stability: Stable under normal conditions.  
Hazardous Polymerization: Will not occur  
Incompatible substances: Avoid strong oxidizing and reducing agents.  
Hazardous decomposition products: Carbon monoxide, carbon dioxide, and products of incomplete hydrocarbon combustion.

### SECTION 6—HEALTH HAZARD DATA

TOXICITY RATING: Practically non-harmful.

Routes of Exposure and Effects:

SKIN: Slight irritant: prolonged contact may cause skin irritation or dermatitis in some individuals

EYE: No effects of exposure expected with the exception of possible irritation.

INHALATION: If misted, no effects of exposure are expected.

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.

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**SECTION 7—EMERGENCY AND FIRST AID PROCEDURES**

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**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 becomes difficult, give oxygen and call a physician.  
**INGESTION:** Do not induce vomiting: Call a physician immediately.

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**SECTION 8—HANDLING AND USE PRECTIONS**

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**Storage requirements:** keep container closed when no 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 if product is released or spilled: clean spill areas thoroughly to avoid hazardous slippery conditions.

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**SECTION 9—INDUSTRIAL HYGIENE CONTROL MEASURES**

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

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**SECTION 10—TOXICOLOGICAL PROPERTIES**

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**Environmental Effects:** Not known to be harmful to aquatic life at low concentrations.  
Freshwater aquatic toxicity rating: 96 hour LC50 Rainbow Trout = 160 mg/L  
96 hour LC50 Salmon = 160 mg/L

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**SECTION 11—DEPARTMENT OF TRANSPORTATION INFORMATION**

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