

Appendix “F”

◆ Drill Mud MSDS Sheets ◆

SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: BIG BEAR DIAMOND DRILL ROD GREASE
CHEMICAL FAMILY: Hydrocarbon
WHMIS CLASSIFICATION: Not regulated
WORK PLACE HAZARD: Not applicable

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

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

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	PERCENTAGE	CAS NUMBER	LD50	LC50
Severely hydrotreated naphthenic oils	< 75.00%	64742-52-5	>3 g/kg (Dermal Rabbit) >5 g/kg (Oral Rat)	N/D
Barium soap	< 35.00%	68201-19-4	Not determined	

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY:
[XXX] Skin, [] Eye Contact, [] Inhalation, [] Ingestion
SKIN CONTACT: Acute exposure is believed to be minimally irritating
EYE CONTACT: Acute exposure is believed to be minimally irritating.
INHALATION: Believed to be minimally irritating if not in excess of permissible concentrations; see Section VIII.
INGESTION: Not available
CHRONIC OVEREXPOSURE: Not determined
IRRITATION INDEX: SKIN: Believed to be 1.0 - 2.0/8.0 (Rabbit); slightly irritating
EYES: Believed to be <15/110 (Rabbit); no appreciable effect
SYMPTOMS OF EXPOSURE: None expected other than possible minor irritation. Considered practically non-toxic.

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: None considered necessary.
EYE CONTACT: As with most foreign materials, should eye contact occur, flush eyes with plenty of water.
INHALATION: None considered necessary.
INGESTION: None considered necessary. Do not induce vomiting.
OTHER INSTRUCTIONS: In some cases of ingestion and/or inhalation, medical attention should be obtained.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR: Brownish yellow, fibrous grease
DENSITY (SPECIFIC GRAVITY): >1.0
BOILING POINT: 700° F
MELTING POINT: 400° F
WATER SOLUBILITY: Negligible
% VOLATILE BY VOLUME: Not determined

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BIG BEAR DIAMOND DRILL ROD GREASE

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EVAPORATION RATE:	Not determined
VAPOR PRESSURE (mm Hg):	Not determined (low)
VAPOR DENSITY (Air=1):	>1.0
pH:	Not applicable
VISCOSITY:	NLGI No. 3-4 grease

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	>350° F (COC Method)
FLAMMABLE LIMIT:	Not determined
EXTINGUISHING MEDIA:	According to the National Fire Protection Association Guide, use water spray. Dry chemical, Foam, Carbon Dioxide CO ₂ . Water or foam may cause frothing.
SPECIAL FIRE FIGHTING PROCEDURES:	Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak. See Hazardous Decomposition Products, Section VII.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE [] Info not available

INCOMPATIBILITY (CONDITIONS TO AVOID): Strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: This material decomposes at a high temperature to form carbon monoxide, carbon dioxide, aldehydes and ketones, combustion products of nitrogen and sulphur.

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

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION:	None required if exposures are within the permissible concentrations. See below
VENTILATION:	Natural dilution
PROTECTIVE GLOVES:	Neoprene
EYE PROTECTION:	Chemical type goggle or face shield optional
OTHER PROTECTIVE EQUIPMENT:	Standard work clothing and work shoes.
PERMISSIBLE CONCENTRATIONS: AIR:	5mg/cubic metre of air for mineral oil mist averaged over an 8 hour daily exposure (ACGIH 1986 - 87)

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Exposed persons should exercise reasonable personal cleanliness; this includes cleansing exposed skin areas several times daily with soap and water and laundering or dry cleaning soiled work clothing at least weekly. Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

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BIG BEAR DIAMOND DRILL ROD GREASE

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STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Contain spill if possible. Wipe up or absorb on suitable material and shovel up.

WASTE DISPOSAL METHOD:

Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures and processes may influence waste classification. Disposal should be in accordance with applicable federal, provincial and local regulations.

SECTION IX: PREPARATION

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

DATE ISSUED: September 17, 1993

DATE REVISED: April 1, 2000

BY: Product Safety Committee



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SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: X-TRA GEL

CHEMICAL FAMILY: Sodium Montmorillonite

WORK PLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: D-2(A)

WORK PLACE HAZARD: Potential Carcinogen; Contains Free Silica

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	OSHA PEL	1994 TLV
Bentonite		1302-78-9	5 mg/M	Not Applicable
Quartz (Silica)		14808-60-7	10 mg/M	0.1 mg/M
Crystosilite		14464-46-1	10 mg/M	0.05 mg/M
Pyrophyllite		15458-32-3	10 mg/M	0.05 mg/M

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: ☐ SKIN ☐ EYE CONTACT ☒ INHALATION ☐ INGESTION

Acute (short term exposure): Cough if exposed to dust at levels higher than TLV's.

Chronic (long term exposure): may lead to development of silicosis or other respiratory problems if consistently exposed to free silica containing airborne bentonite.

SECTION IV: FIRST AID MEASURES

No first aid measures are suggested for Chronic (long term exposure).
For Acute (short term exposure) remove patient from dusty environment.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR	: Pale grey to buff powder or granules, odorless
SPECIFIC GRAVITY	: 2.35
BOILING POINT (°C)	: Not Applicable
MELTING POINT (°C)	: 788 °C
SOLUBILITY IN WATER	: Insoluble; forms colloidal suspension pH: 7-6
PERCENT VOLATILE BY VOLUME	: Not Applicable
EVAPORATION RATE	: Not Applicable
VAPOR PRESSURE (mm Hg)	: Not Applicable

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (°C) : Not Applicable
FLAMMABLE LIMITS : Not Applicable
EXTINGUISHING MEDIA : Not Applicable
SPECIAL FIRE FIGHTING PROCEDURES : Not Applicable
UNUSUAL FIRE AND EXPLOSION HAZARDS: Not Applicable

SECTION VII: REACTIVITY DATA

STABILITY: Stable [XX] Unstable []
INCOMPATIBILITY (CONDITIONS TO AVOID): None
HAZARDOUS DECOMPOSITION PRODUCTS : None
HAZARDOUS POLYMERIZATION: Will Not Occur [XX] May Occur []

SECTION VIII: PREVENTIVE MEASURES

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION : NIOSH/MSHA approved respirators
for silica bearing dust
VENTILATION : Yes if practical; Personal air
supply may be useful
PROTECTIVE GLOVES : None Required
EYE PROTECTION : Suggest goggles
OTHER PROTECTIVE EQUIPMENT (Specify): None Required

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid breathing dust; wear an approved respirator. Practice
reasonable caution and personal cleanliness. Avoid eye contact.

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

Vacuum or sweep-up if dry. Avoid flushing with water as material may
become extremely slippery.

WASTE DISPOSAL METHOD

Dispose of material in an manner to prevent generating dust

SECTION IX: PREPARATION

THE INFORMATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, BUT NO
WARRANTY, EXPRESSED OR IMPLIED, IS MADE.

DATE ISSUED: November 10, 1988
DATE REVISED: December 2, 1988

BY: Product Safety Committee



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PRODUCT INFORMATION

W - OB POLYMER

- Description:** W-OB POLYMER is a liquid ionic formulation which forms a molecular bond with DR-133 POLYMER to develop superior drilling quantities of both products.
- Principal Use:**
- Fast boost viscosifier for DR-133 POLYMER.
 - Develops tougher bond with DR-133 POLYMER which results in greater core recovery and hole stability in sensitive formations.
 - Increases lubricating quantities of DR-133 POLYMER.
 - Molecular structure protects core in soft formations.
- Mixing:**
- Add 2 litres of W-OB POLYMER per 250 gallons of pre-mixed DR-133 POLYMER fluid.
 - For sticky clays or unstable hole increase the above recommended quantity of W-OB POLYMER.
 - Ensure DR-133 POLYMER is mixed well before adding W-OB POLYMER to the fluid.
- Environment:** Non-dangerous goods
- Packaging:** 2 x 10 litre, plastic jugs in a carton.

NOTE: See disclaimer for
supplier responsibility.

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W-OB POLYMER

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SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 62° C
FLAMMABLE LIMIT: Auto-ignition Temp. 227° C
EXTINGUISHING MEDIA: Dry chemical, CO₂, foam and water are effective but may cause frothing.
SPECIAL FIRE FIGHTING PROCEDURES: Cool tanks and containers exposed to fire with water.
UNUSUAL FIRE AND EXPLOSION HAZARDS: To protect against hazardous effects of combustion products respiratory protective equipment when in confined spaces or down wind of fire.

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []
INCOMPATIBILITY (CONDITIONS TO AVOID): Extreme heat and open flame.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide; carbon monoxide.
HAZARDOUS POLYMERIZATION: Will not occur [XXX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

SPECIAL PROTECTION INFORMATION:
RESPIRATORY PROTECTION: None required under normal conditions.
VENTILATION: Adequate ventilation to minimize oil mists below acceptable standards.
PROTECTIVE GLOVES: None required.
EYE PROTECTION: Normal safety glasses suggested.
OTHER PROTECTIVE EQUIPMENT: None required.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Avoid ingestion. Practice reasonable caution and personal cleanliness. Avoid skin and eye contact.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

(Use appropriate safety equipment). Small spills, soak up with absorbent material. Large spills, dike to contain spill to prevent water pollution. Water will cause extreme slipperiness. Recover diked material; return recovered material to plant.

WASTE DISPOSAL METHOD:

Absorb spilled material with absorbent compound, incinerate/dispose to conform with local disposal regulations.

SECTION IX: PREPARATION

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DATE ISSUED: October 29, 1993

DATE REVISED: September 1, 1997

BY: Product Safety Committee

PRODUCT INFORMATION



WESTCOAST
DRILLING
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DR - 133 POLYMER

- Description:** DR-133 POLYMER is an advanced formula liquid polymer designed for a wide range of drilling applications.
- Principal Use:**
- Provides lifting capabilities in all hole depths.
 - Maintains hole conditions in friable zones such as overburden, silts, sands and clay.
 - Non-shearing formula provides excellent hole cleaning and stability.
 - Superior lubricating qualities eliminate vibration while increasing core recovery.
 - Encapsulating structure reduces swelling of clays and caving shales.
- Mixing:**
- Add 2 litres of DR-133 POLYMER per 250 gallons of water. Mix well.
 - Then add 2 litres of W-OB POLYMER to the above volume while mixer is on.
 - For troublesome hole conditions increase the above recommended quantities of both products.
 - Always mix DR-133 POLYMER first before adding W-OB POLYMER.
- Environment:**
- Non-dangerous goods.
- Packaging:** 2 x 10 litre plastic jugs in a carton.

NOTE: See disclaimer for
supplier responsibility.

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SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: DR-133 POLYMER
PRODUCT USE: Drilling Mud Additive
CHEMICAL FAMILY: Copolymer of Acrylamide with Sodium Acrylate
WHMIS CLASSIFICATION: Class B-3 & D-2(B)
WORK PLACE HAZARD: Combustible liquid; Toxic Material

TRANSPORTATION OF DANGEROUS GOODS (TDG)

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

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	PERCENTAGE	CAS NUMBER	LD50	LC50
Mineral Spirits	20-40%	64742-47-8	6480 mg/kg	Not determined
Alkyl Phenol Ethoxylate	3-7%	9016-45-9	3000 mg/kg	Not determined

SECTION III: TOXICOLOGICAL PROPERTIES

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

SKIN CONTACT: Contact may cause irritation, redness, swelling, or dermatitis.
EYE CONTACT: Will cause painful burning or stinging of eyes and lids, watering of eyes, and inflammation of conjunctiva.
INHALATION: Not available.
INGESTION: May cause nausea and vomiting
EFFECTS OF CHRONIC EXPOSURE: Skin irritation or dermatitis may occur upon frequent or prolonged contact.

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Wash exposed area with soap and water. If irritation or abnormalities persist, call a physician.
EYE CONTACT: Immediately flush eyes with water for fifteen (15) minutes and call a physician.
INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.
INGESTION: Do not induce vomiting. If conscious, dilute by giving two glasses of water. Call a physician immediately.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR: Liquid emulsion
DENSITY (SPECIFIC GRAVITY): Not available
BOILING POINT: Not available
MELTING POINT: Not available
WATER SOLUBILITY: Soluble
% VOLATILE BY VOLUME: Not available
EVAPORATION RATE: Not available
VAPOR PRESSURE: (mm Hg) Not available
VAPOR DENSITY: (Air = 1) Not available
pH: 7.0 - 9.0 (0.6% in D.W.)



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DR-133 POLYMER

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SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	70° C
FLAMMABLE LIMIT:	Not available.
EXTINGUISHING MEDIA:	Water Spray, foam, dry chemical, carbon dioxide. Water will cause extreme slipperiness.
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained respirators required for fire fighting personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Sensitivity to static discharge.

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []	
INCOMPATIBILITY (CONDITIONS TO AVOID):	Strong oxidizing and reducing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Not available
HAZARDOUS POLYMERIZATION:	Will not occur [XXX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION:	In absence of proper ventilation recommend approved organic vapor type respirator.
VENTILATION:	General mechanical; ten (10) changes per hour.
PROTECTIVE GLOVES:	Suggest plastic or rubber.
EYE PROTECTION:	Suggest goggles.
OTHER PROTECTIVE EQUIPMENT:	Suggest rubber apron.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Keep container closed when not in use. Store in cool and dry location away from oxidizing and reducing agents.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Eliminate sources of ignition. Collect into waste container. Absorb remaining product with earth or sand and dispose of with solid waste. Wash spill site after material pick-up. Do not breath vapors. Water will cause extreme slipperiness. Use NIOSH-approved respirator if exposed to vapors.

WASTE DISPOSAL METHOD:

Dispose of waste according to federal, provincial, and local regulations.

SECTION IX: PREPARATION

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

DATE ISSUED: October 29, 1993

DATE REVISED: September 1, 1997

BY: Product Safety Committee

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**550X POLYMER**

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AMENDMENT
HAZARDOUS INGREDIENTS (550X)

Material or component	WT% Hazard data
COPOLYACRYLAMIDE/SODIUM ACRYLATE	Not considered hazardous

ENVIRONMENTAL

DEGRADABILITY/AQUATIC TOXICITY:	Not determined	
OCTANOL/WATER PARTITION COEFFICIENT:	Not determined	
WASTE DISPOSAL METHODS:	Incineration and/or disposal in Chemical Landfill. Disposer must comply with federal, provincial and local disposal or discharge laws.	
RCRA STATUS OF UNUSED MATERIAL IF DISCARDED:	Not a "Hazardous Waste".	
HAZARDOUS WASTE NUMBER:	Not available	
REPORTABLE QUANTITY:	EPA 40 CFR (CERCLA 102):	Not applicable
THRESHOLD PLANNING QUANTITY:	EPA 40 CFR 355 (SERA 301-304):	Not applicable
TOXIC CHEMICAL RELEASE REPORTING:	EPA 40 CFR 372 (SERA 311-313):	Not applicable
EPA HAZARD CLASSIFICATION CODE:	ACUTE - YES FIRE - NO	CHRONIC - NO PRESSURE - NO REACTIVE - NO
HMIS AND NFPA RATINGS:	HMIS	NFPA
HEALTH	1	1
FLAMMABILITY	0	0
REACTIVITY	1	1
SPECIAL	Not applicable	Not applicable

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SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: **550X POLYMER**
CHEMICAL FAMILY: Copolymer of Acrylamide and Sodium Acrylate
PRODUCT USE: Drilling Mud Additive
WHMIS CLASSIFICATION: Not a Controlled Product under WHMIS
WORK PLACE HAZARD: Not applicable

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

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

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	PERCENTAGE	CAS NUMBER	LD50	LC50
No Hazardous Ingredients				

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

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

SKIN CONTACT: Prolonged contact may cause skin irritation or dermatitis in some individuals.
EYE CONTACT: May cause irritation.
INHALATION: May cause sneezing, slight irritation of nose and throat.
INGESTION: Not available
EFFECTS OF ACUTE EXPOSURE: Not available
EFFECTS OF CHRONIC EXPOSURE: Not available

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Wash exposed area with soap and water. If irritation or abnormalities persist, call a physician.
EYE CONTACT: Immediately flush eyes with water for fifteen (15) minutes and call a physician.
INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.
INGESTION: Do not induce vomiting. If conscious, dilute by giving two glasses of water. Call a physician immediately.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR: White granular solid; faint odor
DENSITY (SPECIFIC GRAVITY): 0.80
BOILING POINT: Decomposes
MELTING POINT: Not applicable
WATER SOLUBILITY: Soluble
% VOLATILE BY VOLUME: Not applicable
EVAPORATION RATE: Not applicable
VAPOR PRESSURE (mm Hg): Very low
VAPOR DENSITY (Air = 1): Not applicable

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**550X POLYMER**

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SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Not applicable
FLAMMABLE LIMIT:	Not applicable
EXTINGUISHING MEDIA:	Dry chemical, foam, CO ₂
SPECIAL FIRE FIGHTING PROCEDURES:	Use self-contained respirators for fire fighting personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Oxides of carbon and nitrogen and products of incomplete combustion.

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []	
INCOMPATIBILITY (CONDITIONS TO AVOID):	Strong oxidizing agents and caustic solutions.
HAZARDOUS DECOMPOSITION PRODUCTS:	Not applicable
HAZARDOUS POLYMERIZATION:	Will not occur [XXX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION:	Suggest NIOSH/MESA approved dust mask.
VENTILATION:	Ten (10) changes per hour suggested.
PROTECTIVE GLOVES:	Suggest plastic or rubber.
EYE PROTECTION:	Suggest goggles.
OTHER PROTECTIVE EQUIPMENT:	Suggest rubber apron.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Avoid prolonged or frequent contact when handling material. Do not inhale dust or breathe vapor. Keep container closed when not in use. Store in a cool and dry location away from oxidizing and reducing agents.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Ventilate area. Wear rubber boots, gloves and a self contained breathing apparatus if ventilation is not adequate. Collect into a waste container. Avoid raising dust. Wash spill site after material pick-up. Water solutions are very slippery. May constitute a hazard following a spill.

WASTE DISPOSAL METHOD:

Dispose of waste according to federal, provincial and local regulations.

SECTION IX: PREPARATION

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DATE ISSUED: January 1, 1991

DATE REVISED: April 1, 2000

BY: Product Safety Committees

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SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: **GSX 20 BIT COOLANT**
CHEMICAL FAMILY: Anionic low foaming surfactants; fatty acid soaps; derived vegetable oils; solvents.
WHMIS CLASSIFICATION: Class D-2(B) & Class B-3
WORK PLACE HAZARD: Skin and eye irritant and combustible.

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	LD50	LC50
Ethylene Glycol	5 to 10%	00107-21-1	>6,000 mg/kg	Not determined
Isobutanol	3 to 7%	78-83-1	>3,200 mg/kg	Not determined

SECTION III: TOXICOLOGICAL PROPERTIES

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

SKIN CONTACT: See First Aid - Section IV
EYE CONTACT: See First Aid - Section IV
INHALATION: Not available
INGESTION: See First Aid - Section IV
EFFECTS OF OVEREXPOSURE: May cause irritation to the skin and eyes; may cause dermatitis in sensitive people. Ingestion may cause nausea, vomiting and diarrhea.
NOTE: THIS PRODUCT CONTAINS ETHYLENE GLYCOL. IF INGESTED, TREATMENT MUST BE SOUGHT IMMEDIATELY OR LIVER AND KIDNEY DAMAGE MAY RESULT.

THRESHOLD LIMIT VALUE: Not determined

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Wash with water.
EYE CONTACT: Immediately flush with water for fifteen (15) minutes and seek medical attention.
INHALATION: Not available.
INGESTION: Induce vomiting immediately. Get patient to physician. **NOTE: THIS PRODUCT CONTAINS ETHYLENE GLYCOL, INGESTION AND LACK OF IMMEDIATE MEDICAL ATTENTION MAY RESULT IN KIDNEY AND LIVER DAMAGE.**

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOR: Amber Liquid. Bland Odor
DENSITY (SPECIFIC GRAVITY): 1.01 g/cc
BOILING POINT: 105° C
MELTING POINT: Not determined
WATER SOLUBILITY: Complete

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**GSX 20 BIT COOLANT**

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% VOLATILE BY VOLUME:	Not determined
EVAPORATION RATE:	Not determined
VAPOR PRESSURE (mm Hg):	Not determined
VAPOR DENSITY (Air = 1):	Not determined
pH:	7.0 - 8.0

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	53° C
FLAMMABLE LIMIT:	Not determined
EXTINGUISHING MEDIA:	CO ₂ , water, foam, dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES:	None required.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None

SECTION VII: REACTIVITY DATA

STABLE [XXX] INSTABLE []

INCOMPATIBILITY (CONDITIONS TO AVOID):	Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon dioxide, carbon monoxide; and sulfur oxides on combustion.
HAZARDOUS POLYMERIZATION:	Will not occur [XXX] May occur []

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION:	None normally required.
VENTILATION:	Ten (10) changes per hour suggested.
PROTECTIVE GLOVES:	Suggest plastic or rubber.
EYE PROTECTION:	Suggest rubber apron.
OTHER PROTECTIVE EQUIPMENT:	Suggest goggles.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Avoid ingestion. Practice reasonable caution and personal cleanliness. Avoid skin and eye contact.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Use appropriate safety equipment. Small spills, soak up with absorbent material. Large spills, dike to contain spill to prevent water pollution. Recover diked material; return recovered material to plant.

WASTE DISPOSAL METHOD:

Absorb spilled material with absorbent compound, 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.

DATE ISSUED: December 16, 1988

DATE REVISED: April 1, 2000

BY: Product Safety Committee