

Appendix D

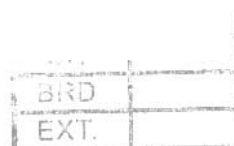
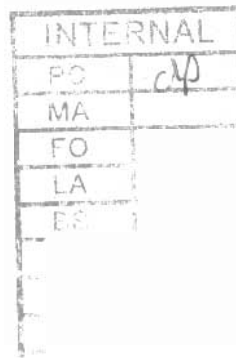
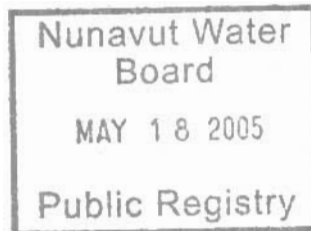
25A HELICOPTER DRILL RIG WEIGHTS

<u>Item</u>	<u>Unit Weight</u>	<u>No. of Units</u>	<u>Extension</u>
1) BBS25A fly drill rig	7,000 lb.	1	7,000 lb.
2) NQ drill rods 10ft.	51 lb.	150	7,650 lb.
3) NW casing 10 ft.	70 lb.	2	140 lb.
4) NW casing 5 ft	35	2	70 lb.
5) NW casing 2 ft	14	2	28 lb.
6) HW casing 10 ft	114	10	1,140 lb.
7) HW casing 2 ft	23	4	92 lb.
8) Water supply pumps	500 lb	3	1,500 lb.
9) water line	0.6 lb./ft	7,000 ft.	4,200 lb.
10) hand tools	300 lb.	1 set	300 lb.
11) drill spares	500 lb.	1 set	500 lb.
12) set-up timbers	1,000 lb.	2 set	2,000 lb.
13) core boxes	6 lb.	25	150 lb.
14) rod grease	50 lb.	6	300 lb.
15) Lubes/Oils	50 lb.	4	200 lb.
16) Linseed soap	50 lb.	1	50 lb.
17) Misc. Fluids for drilling	50 lb.	30	1,500 lb.

fly rigs
5000 lb

sub total.....26,4200 lb.
10% contingency.....2,640 lb.
Total..... 29,000 lb.

1) Water consumption – using NQ tools, we would use 7-8 gallons/minute while drilling.





Serving the Drilling Industry

WESTCOAST DRILLING SUPPLIES LTD.

#6 - 2351 SIMPSON ROAD
RICHMOND, B.C. V6X 2R2

TEL: (604) 278-4954
FAX: (604) 278-4914

EMERGENCY PHONE NO.: (604) 278-4954

MATERIAL SAFETY DATA SHEET

SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: 550 X 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

<u>INGREDIENT</u>	<u>PERCENTAGE</u>	<u>CAS NUMBER</u>	<u>LD/50</u>	<u>LC/50</u>
No Hazardous Ingredients				

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY:
☐ skin, ☐ eye contact, ☒ 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

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 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 ODOUR:	White granular solid; faint odour
DENSITY (SPECIFIC GRAVITY):	0.80
BOILING POINT:	Decomposes
MELTING POINT:	Not Applicable
WATER SOLUBILITY:	Soluble
% VOLATILE BY VOLUME:	Not Applicable
EVAPORATION RATE:	Not Applicable
VAPOUR PRESSURE: (MM Hg)	Very Low
VAPOUR DENSITY: (Air = 1)	Not Applicable

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not Applicable

FLAMMABLE LIMIT: Not Applicable

EXTINGUISHING MEDIA: Dry chemical, foam, CO₂

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 vapour. 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

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

Date issued: January 1, 1991

Date Revised:

By: Product Safety Committee

AMENDMENT

HAZARDOUS INGREDIENTS (550 X)

MATERIAL OR COMPONENT	WT%	HAZARD DATA
COPOLYACRYLAMIDE/SODIUM ACRYLATE		NOT CONSIDERED HAZARDOUS

ENVIRONMENTAL

DEGRADABILITY/AQUATIC TOXICITY: N. D.

OCTANOL/WATER PARTITION COEFFICIENT: N. D.

WASTE DISPOSAL METHODS: INCINERATION AND/OR DISPOSAL IN CHEMICAL
LANDFILL. DISPOSER MUST COMPLY WITH
FEDERAL STATE AND LOCAL DISPOSAL OR
DISCHARGE LAWS.

RCRA STATUS OF UNUSED MATERIAL IF DISCARDED: NOT A "HAZARDOUS
WASTE"

HAZARDOUS WASTE NUMBER: N.

REPORTABLE QUANTITY: EPA 40 CFR (CERCLA 102): N. A.

THRESHOLD PLANNING QUANTITY: EPA 40 CFR 355 (SERA 301-304): N. A.

TOXIC CHEMICAL RELEASE REPORTING: EPA 40 CFR 372 (SERA 311-313):
N. A.

EPA HAZARD CLASSIFICATION CODE: ACUTE - YES CHRONIC - NO
FIRE - NO PRESSURE - NO
REACTIVE - NO

HMIS AND NFPA RATINGS:	HMIS	NFPA
HEALTH	1	1
FLAMMABILITY	0	0
REACTIVITY	1	1
SPECIAL	N.A.	N.A.



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EMERGENCY PHONE NO. (604) 278-4954

MATERIAL SAFETY DATA SHEET

SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: LINSEED SOAP

CHEMICAL FAMILY: Lubricating grease

WHMIS CLASSIFICATION: Not Regulated

WORK PLACE HAZARD: Not Applicable

TRANSPORTATION OF DANGEROUS GOODS (TDGR)

CLASSIFICATION: Not Available

PACKAGE GROUP: Not Applicable

PRODUCT IDENTIFICATION NUMBER (PIN): Not Applicable (Petroleum Lubricating Grease)

SECTION II: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>PERCENTAGE</u>	<u>CAS NUMBER</u>	<u>LD/50</u>	<u>LC/50</u>
Linseed Soap	100%	Mixture		

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: Information not available

☐ skin, ☐ eye contact, ☐ inhalation, ☐ ingestion

SKIN CONTACT: Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis.

EYE CONTACT: Not available

INHALATION: Inhalation of oil mist or vapours from hot grease may cause irritation of the upper respiratory tract. Long term intensive exposure may cause benign lung fibrosis.

INGESTION: Not Available.

CHRONIC OVEREXPOSURE: Not Determined

IRRITATION INDEX: SKIN: Not Available

SYMPTOMS OF EXPOSURE: Not Available

EXPOSURE INFORMATION: Oil mist (particulate): 5 mg/M³ (TLV/TWA) ACGIH 88/89
10 mg/m³ (TLV/STEL) ACGIH 88/89

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Remove contaminated clothing. Wash contaminated skin with mild soap and water. Wipe excess from skin.

EYE CONTACT: Flush eyes with water for at least fifteen (15) minutes.

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

INGESTION: Do not induce vomiting. Obtain medical attention immediately.

OTHER INSTRUCTIONS: None.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	Semi-solid brown coloured grease; slight hydrocarbon odour
DENSITY (SPECIFIC GRAVITY):	1.0
BOILING POINT:	100 Degree C
MELTING POINT:	Not Available
WATER SOLUBILITY:	Miscible
% VOLATILE BY VOLUME:	Not Available
EVAPORATION RATE:	Not Available
VAPOUR PRESSURE: (MM Hg)	Not Available
VAPOUR DENSITY: (Air = 1)	Not Available
Ph:	9.5
VISCOSITY:	Not Available

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 222°C FLAMMABLE LIMIT: Not Available

AUTO IGNITION TEMP: 343°C

EXTINGUISHING MEDIA: Dry Chemical, Carbon Dioxide CO₂, 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.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None currently known.

SECTION VII: REACTIVITY DATA

STABLE: [yes] INSTABLE: []

INCOMPATIBILITY (CONDITIONS TO AVOID): Not Available

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide; carbon dioxide and dense smoke are produced on combustion. Avoid excessive heat, formation of vapours or mists.

HAZARDOUS POLYMERIZATION: Will not occur [] May occur [] Not Available

SECTION VIII: PREVENTATIVE MEASURES

RESPIRATORY PROTECTION: Under conditions of high heat use an air purifying respirator (mechanical filter with accompanying organic vapour cartridge)

VENTILATION: Highly recommended for all indoor situations to control fugitive emissions. Concentrations in air should be maintained below the recommended threshold limit value if unprotected personnel are involved.

LOCAL: If oil mist is present or if exposure is exceeded.

MAKE-UP AIR: Should always be supplied to balance air exhausted (either generally or locally)

PROTECTIVE GLOVES: Impervious gloves (viton nitrile, PVC, neoprene) should be worn at all times when handling this product.

EYE PROTECTION: 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.

OTHER PROTECTIVE EQUIPMENT: Impervious clothing (apron, coveralls) should be worn in confined workspaces or where the risk of skin exposure is much higher.

PERMISSIBLE CONCENTRATIONS: Not Available

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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.

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK

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.

Do not allow product or run off 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.



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MATERIAL SAFETY DATA SHEET

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	LD/50	LC/50
Severely navorotreated naphthenic oils	< 75.00%	64742-52-5	> 3 g/kg (Dermal Rabbit)	Not Determined
Barium soap	< 25.00%	68201-19-4	> 5 g/kg (Oral Rat)	Not Determined

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY:

[x] 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 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 ODOUR:	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
EVAPORATION RATE:	Not Determined
VAPOUR PRESSURE: (MM Hg)	Not Determined (low)
VAPOUR 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 CO₂. 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 vapours 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: [X]

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 goggles or face shield optional.

OTHER PROTECTIVE EQUIPMENT: Standard work clothing and work shoes.

PERMISSIBLE CONCENTRATIONS: AFR: 5 mg/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.

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: Sept. 17, 1993 By: Product Safety Committee

Date Revised:

**IMPERIAL OIL
MATERIAL SAFETY DATA SHEET****TURBINE FUEL TYPE AVIATION, WIDE CUT**

Date Prepared: December 03, 2003

Supersedes: May 31, 2003

MSDS Number: 08524

1. PRODUCT INFORMATION

Product Identifier: TURBINE FUEL AVIATION, WIDE CUT TYPE

ESSO TURBO FUEL B

ESSO JET B

JET B

TURBO FUEL B

TURBO FUEL B F40

TURBO FUEL B JP4

ESSO TURBO FUEL B (FSII)

JET B (FSII)

AVIATION TURBINE FUEL (JP4)

CAN/CGSB-3.22 GRADE F40

ESSO JET B (FSII)

Application and Use:

Aviation turbine fuel

Product Description:

A mixture of aliphatic and aromatic hydrocarbons and additives.

REGULATORY CLASSIFICATION

WHMIS:

Class B, Division 2: Flammable Liquids.

Class D, Division 2, Subdivision A: Very Toxic Material.

Class D, Division 2, Subdivision B: Toxic Material

CEPA: CANADIAN ENVIRONMENTAL PROTECTION ACT

All components of this product are either on the Domestic
Substances List (DSL) or are exempt.

TDG INFORMATION (RAIL/ROAD):

Shipping Name: FUEL, AVIATION, TURBINE ENGINES

Class: 3

Packing Group: II

PIN Number: UN1863

Marine Pollutant: Not applicable

Please be aware that other regulations may apply.

TELEPHONE NUMBERS**MANUFACTURER/SUPPLIER:**

Emergency 24 hr. (519) 339-2145 IMPERIAL OIL
Technical Info. (800) 268-3183 Products Division
111 St Clair Avenue West
Toronto, Ontario
M5W 1K3
(416) 968-4441

2. REGULATED COMPONENTS

The following components are defined in accordance with sub-paragraph 13(a) (i) to (iv) or paragraph 14(a) of the Hazardous Products Act:

NAME	%	CAS #
Kerosene, straight run	40-70 V/V	8008-20-6 LD50:>5g/kg,oral,rat
Naphtha, full range	30-60 V/V	64741-42-0
Diethylene glycol monomethyl ether	0-0.15 V/V	111-77-3 LD50:7g/kg,orl,rat LD50:>2.0/kg,skn.rbt

3. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Physical State: Liquid
Specific gravity: not available
Viscosity: 0.60 cSt at 40 deg C
Vapour Density: 4
Boiling Point: 40 to 270 deg C
Evaporation rate: <1 (1= n-butylacetate)
Solubility in water: negligible
Freezing/Pour Point: -58 deg C ASTM D 2386
Odour Threshold: not available
Vapour Pressure: 21 kPa at 38 deg C
Density: 0.78 g/cc at 15 deg C
Appearance/odour: White or pale yellow liquid, petroleum odour

4. HEALTH HAZARD INFORMATION

NATURE OF HAZARD

INHALATION:

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

EYE CONTACT:

Slightly irritating, but will not injure eye tissue.

SKIN CONTACT:

Irritating.

Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

Low toxicity.

INGESTION:

Low toxicity.

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

CHRONIC:

Contains benzene. Human health studies (epidemiology) indicate that prolonged and/or repeated overexposures to benzene may cause damage to the blood producing system and serious blood disorders, including leukemia.

Animal tests suggest that prolonged and/or repeated overexposures to benzene may damage the embryo/fetus. The relationship of these animal studies to humans has not been fully established.

Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.)

Contains diethylene glycol monomethyl ether (DIEGME). Prolonged and repeated exposure through inhalation or extensive skin contact with DIEGME may result in toxic effects on the kidneys, the reproductive system and/or the embryo/fetus.

ACUTE TOXICITY DATA:

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

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

OCCUPATIONAL EXPOSURE LIMIT:

Manufacturer Recommends:

100 ppm based on composition.

ACGIH recommends:

For n-Hexane (skin), 50 ppm (0.76 mg/m3).

For Benzene, ACGIH recommends a TWA of 0.5 ppm (1.6 mg/m3), (skin), and categorizes it as a confirmed human carcinogen.

Local regulated limits may vary.

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:

SKIN CONTACT:

Remove contaminated clothing, including shoes, after flushing has begun.

INGESTION:

Material should not enter the lungs (aspiration). Keep at rest. Get

PERSONAL PROTECTION:

conditions of use.

In open systems where dust is likely, wear safety goggles, chemical

Where only incidental contact is likely, wear safety goggles, long sleeves, and chemical resistant gloves.

When working with this material, follow the precautions given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be

ENGINEERING CONTROLS:

Minimize dust emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces.

HANDLING, STORAGE AND SHIPPING:

Store in a cool, well ventilated place away from incompatible materials. In keeping with good personal hygiene practices, wash hands thoroughly.

Store and load at normal (up to 38 deg C) temperature and at atmospheric pressure.

Static charge build-up could become an ignition source. Use proper relaxation and grounding procedures.

Do not heat or weld empty containers. Do not reuse empty containers.

Eliminate source of ignition. Keep public away. Prevent additional discharge of material. If possible to do so with areas

spilled liquid with sand or earth. Do not use combustible materials such as sawdust.

using a suitable absorbent

consult an expert on disposal of recovered material. Follow disposal

disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the advice

WATER SPILL:

fatal. Warn occupants and shipping in downwind areas. Consult an expert on disposal of recovered material. Follow disposal

disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adv

Flashpoint and method: deg C (°C) ASTM D93

GENERAL HAZARDS

Flammable Liquid; may release vapours that form flammable mixture or above the flash point.

(thermal decomposition).
Toxic gases will form upon
a fire.

**Shell Canada Limited**
Material Safety Data SheetEffective Date: 2002-08-14
Supersedes: 2001-01-08Class B2 Flammable
LiquidClass D2A Other Toxic
Effects - Carcinogen**1. PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT: **REGULAR UNLEADED GASOLINE**
SYNONYMS: Automotive Fuel
Petrol
PRODUCT USE: Fuel
MSDS Number: 211-001

MANUFACTURER
Shell Canada Limited
P.O. Box 100, Station M
400-4th Ave. S.W.
Calgary, AB Canada
T2P 2H5

TELEPHONE NUMBERS
Shell Emergency Number 1-800-661-7378
CANUTEC 24 HOUR EMERGENCY NUMBER 613-996-6666

For general information: 1-800-661-1600
For MSDS information: 403-691-3982
(From 7:30 to 4:30 Mountain Time) 403-691-2220

This MSDS was prepared by the Toxicology and Product Stewardship Section of Shell Canada Limited.

*An asterisk in the product name designates a trade-mark(s) of Shell Canada Limited, used under license by Shell Canada Products.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS Number	% Range	WHMIS Controlled
Gasoline, Natural	8006-61-9	80 - 100	Yes
Benzene	71-43-2	<1.5	Yes

See Section 8 for Occupational Exposure Guidelines.

3. HAZARDS IDENTIFICATION

Physical Description: Liquid Clear Typical Gasoline Odour

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

Hazards:

Flammable Liquid.
May cause cancer.
Vapours are moderately irritating to the eyes.
Ingestion may result in vomiting. Avoid aspiration of vomitus into lungs as small quantities may result in aspiration pneumonitis.
May be absorbed by skin contact. Prolonged immersion in liquid may lead to chemical burns.
Vapours are moderately irritating to the respiratory passages. The liquid when accidentally aspirated into the lungs can cause a severe inflammation of the lung.
Excessive exposure to benzene may cause leukemia in man.

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.

For further information on health effects, see Section 11.

4. FIRST AID

Eyes: Flush eyes with water for at least 15 minutes while holding eyelids open. If irritation occurs and persists, obtain medical attention.

Skin: Wash contaminated skin with mild soap and water for 15 minutes. If irritation occurs and persists, 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.

Inhalation: Remove victim from further exposure and restore breathing, if required. 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.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Dry Chemical
Carbon Dioxide
Foam
Water Fog