

## Oil and Hazardous Material Spill Contingency Plan November 18, 2005

Prepare By:

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Approved By:

The Board of Roche Bay PLC

## **Preamble**

The Spill Contingency Plan is effective from August 1, 2005 until August 31, 2008 and applies to all projects and operations of Roche Bay plc. Chandler & Cooper, Suite 202 Parnaivik Building, P.O. Box 2021, Iqaluit, Nunavut X0A 0H0.

It has been prepared for the Nunavut Water Board to be licensed in the area of Roche Bay, latitude  $68^{\circ}15' - 68^{\circ}30'$  and longitude  $82^{\circ}00' - 84^{\circ}00'$ . This Plan will be distributed to all employees and personnel directly involved in the project via e-mail.

Additional copies and updates of this Plan may be obtained on our website <a href="http://www.rochebay.com">http://www.rochebay.com</a> or via e-mail <a href="mailto:candace@rochebay.com">candace@rochebay.com</a>.

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### Introduction

The purpose of Roche Bay plc's Oil and Hazardous Material Spill Contingency Plan is to provide a plan of action for every foreseeable spill event at the Roche Bay operation. It defines the responsibilities of key response personnel and outlines the procedures for responding to spills in a way that will minimize potential health and safety hazards, environmental damage, and clean up costs. The Plan has been prepared to provide easy access to all the information needed in dealing with a spill.

The map (Figure 1) on the following page shows the existing layout of the site in the development area at Roche Bay. Currently there is not much development that has been accomplished at the site. Exploration had been undertaken in the early 1980s but was then put on hold. The present goal is to move the project into feasibility stages through exploratory drilling and to clear the site of a significant amount of the waste that had been left over from previous explorations. Hazardous materials used on site will be minimal, but they will include gasoline and oil which will be stored in drums and transported to the site by ATV. Waste products produced at the site will be flown out and then shipped South on the sealift.

It is the policy of Roche Bay plc to initiate clean up activity when, in the opinion of its management, the Company is clearly associated, or likely to be associated, with the spilled material. As well, it is our Company policy:

- to comply with existing regulations;
- to provide such protection of the environment as is technically feasible and economically practical;
- to cooperate with other groups working on the protection of the environment;
- to anticipate future pollution control requirements and to make provision for them; and
- to keep employees, government officials and the public informed.

It is the belief of the Company that the best way to avoid ever having to implement this Spill Contingency Plan is by taking proper and necessary precautions during the handling of the materials. As part of this, we will ensure that barrels are always moved or placed on metasorb pads and that a barrel is not opened without a pad under it. We will also ensure that at least two spills kits are on hand at all times.

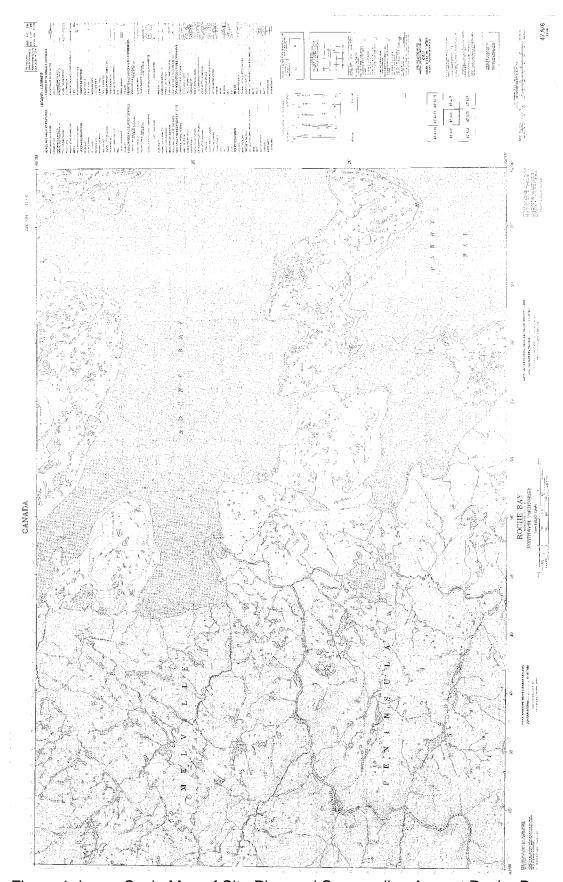
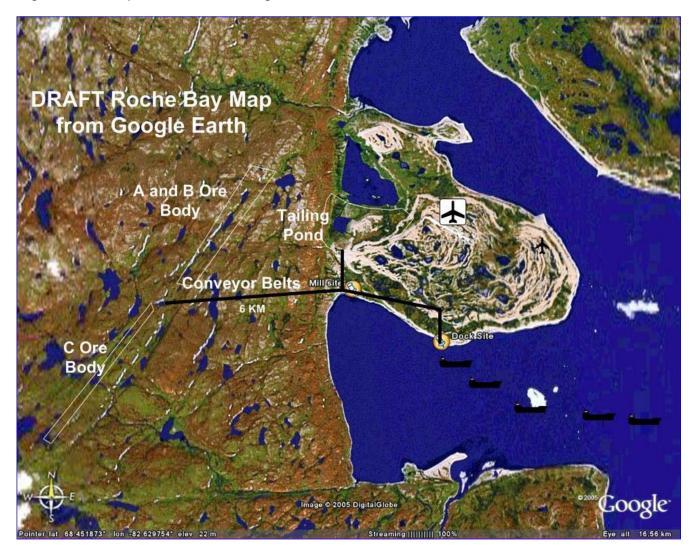


Figure 1: Large Scale Map of Site Plan and Surrounding Area at Roche Bay

Figure 2: Site Specific Plan Drawings of Facilities



## **Response Organization**

The Spill Response Team will comprise all employees and personnel who are present at the site of an undertaking. Generally, this should include the On-scene Coordinator and the Environmental/Safety Advisor who will run the weekly "tailgate safety meetings". The On-scene Coordinator is responsible for the managing of the entire undertaking and the Environmental/Safety Advisor is in charge of the management of petroleum products or hazardous materials. It is one of these two people who will be initially responsible for clean up activities.

In the event that the primary personnel are away from the site, it will be the responsibility of the first team member at the scene to assume spill activation procedures.

In the case of spill situation, the primary personnel who should already be onsite to activate the proper procedures are:

Benjamin J. Cox, President of Roche Bay plc

Keith Sharp, Acting On-scene Coordinator, Environmental/Safety Advisor

They may be reached 24 hours/day at 503-621-3286.

### **Initial Actions**

This section is included to educate company personnel about the proper procedures for reacting to a spill.

The suggested course of action of the first person at a spill scene is the following:

- (a) Be alert and considerate of your safety first. If possible, identify the product spilled;
- (b) Assess the hazard to persons in the vicinity of the spill;
- (c) If possible, without further assistance, control danger to human life;
- (d) Assess whether the spill can be readily stopped or brought under control:
- (e) If safe to do so, and if possible, try to stop the flow of material;
- (f) Gather information of the status of the situation;
- (g) Report the spill without delay to the Spill Response Team and ensure that the government is notified at the same time by the Nunavut 24-Hour Spill Report Line 867-920-8130; and
- (h) Resume any effective action to contain, clean up, or stop the flow of the spilled product.

## **Reporting Procedures**

All spills or potential spills of petroleum products or other hazardous materials must be reported to the 24-hour Spill Report Line to ensure that an investigation may be undertaken by the appropriate government authority. This should be done by either the On-scene Coordinator or the Environmental/Safety Advisor. If neither of these people is available at the time of a spill, the first Spill Response Team member who is present at the site is responsible for the reporting procedures.

In order to ascertain whether a spill triggers the reporting requirement, please see Appendix E which is a copy of Schedule B of the *Spill Contingency Planning and Reporting Regulations* which covers the threshold quantities of spilled materials. It should be noted that if there is every any doubt about the amount of materials which was spilled, that it should be reported anyway. Lack of information is not a valid excuse for failure to report a spill.

#### Spill Reporting Procedures

- 1. Fill out the "Spill Report From" found in Appendix C as completely as possible before calling in the report.
- 2. Report IMMEDIATELY to Yellowknife using the 24-hour Spill Report Line

#### **24-HOUR SPILL REPORT LINE** 867-920-8130

3. Where fax is available, follow up immediately by sending a copy of the Spill Report

FAX: 867-873-6924

4. RCMP communications may be used if other means are not available.

**NOTE:** Telephone calls can be made collect by informing the Operator that you wish to report a spill.

Once the proper governmental authorities have been notified, attempts should be made to notify the On-scene Coordinator and Environment/Safety Advisor if they were not present at the time of the spill. The next people to be notified is the President of the Company, Benjamin Cox, by telephone at 503-892-3333 and a copy of the report should be e-mailed to him at <a href="mailto:bjc@rochebay.com">bjc@rochebay.com</a> as soon as is possible after the spill. A list of additional contact information that might be needed at the time of a spill can be found in Appendix D.

Further to the Spill Report Form, a detailed spill report must be submitted to the Indian and Northern Affairs' Water Resources Officer no later than thirty days after initially reporting the spill to the Spill Report Line.

### **Action Plans**

Given the nature of the undertaking, the most likely spill possibilities would be leakage of the drums at the camp, spilling during transit, as a result of defective equipment, or through simple human error. Below, the typical responses for these scenarios will be outlined.

Ideally, fuel and oil should be contained in proper drums designed for the purpose. When these drums are empty, they should be cleaned, flattened and stored to be shipped South on the next available sealift. In the event that a spill should occur, then the first Team Member to arrive at the site of a spill should consult and follow the "Initial Actions" and "Reporting Procedures" above. These actions should be taken immediately after a spill has been detected in order to ensure minimal damage. It is estimated that any spill that might possibly occur would not be detrimental since both the camp and the drill site will be located at a reasonable distance from any water source. In this case, the procedures and actions which have already been outlined should be adequate for dealing with the situation.

Spilled materials should be recovered using drums and containers that are available on-site and be disposed of by shipping them South on the sealift. The only contaminants that have the potential to spill will be gasoline, diesel fuel and automotive oil. The camp and the drill site will be located on a base of banded magnetite iron formation more than 300m from any water body. As a result, clean up of any spillage should be relatively easy without much possibility of seeping into the soil or into any water currents.

If any spilling were to occur in an area where contamination might be possible, then the area will be restored by the best means possible. If any major spill were to occur during the transportation of the materials and not at the camp or drill site, it is possible that the situation would be more serious that those that have been considered here. Should this occur we will do our best to contain the spill and we will follow up by contacting the spill hotline.

There are no major safety hazards associated with the possible spills that might be encountered other than the prolonged inhaling of fumes (if a leak were to occur overnight at the camp). If this were to occur, the effects should not be detrimental to the Team's health or safety.

## **Environmental Mapping**

As considerable environmental impacts could occur as a result of a spill, detailed maps that illustrate the undertaking's relationship to environmentally sensitive areas are included with this plan in order to help both spill response personnel and regulators understand the risks posed by activities at the site. While there are some maps that are currently available based on previous baseline work, we do not feel that they adequately represent the site. More relevant mapping will be done next spring as part of a new round of baseline studies. When this work is completed, then the maps generated will be included in the section.

## **Resource Inventory**

The following is a list of both the personnel and the specific types of equipment, machinery and tools available to respond to possible spills. This includes equipment to be used by a contractor responding to the spill on the Company's behalf. These resources are described in two categories:

- · Resources available on site
  - Personnel:
    - o On-scene coordinator
    - o Environmental/Safety advisor
    - o 4 Drillers
    - o 1 Cook
    - o 1 Camp manager
    - o 1 Geologist
    - o 1 helpers
    - o 2 consultants whose presence will fluctuate during the undertaking
  - Equipment:
    - o 1 Honda ATV with trailer
    - o 2 Winco 5500W Industrial Diesel Generators
    - o 1 piston water pump
    - o 1 Winkie drill
    - o 10-person Weatherhaven camp
- Resources (personnel and equipment) available from other sources.
  - o Please see Appendix D for additional sources and contact information.

## **Training and Exercises**

It is not sufficient to prepare a spill contingency plan without testing its elements through mock spill control and communication exercises. On weekly a basis "tail gate" meetings which will cover all Workers Compensation Board details as well as safety and spill instruction....Training will take place on a rubber mat in order to avoid actual spilling during the procedure. During this training period, facility personnel will be properly instructed in the operation and maintenance of all equipment used on site in order to prevent any accidents. Prior to arrival at the site, each member of the Team will also be provided a copy of this contingency plan for review.

## **Conclusion**

This spill contingency plan is dynamic and will evolve with the changing conditions on site, such as changes in the stage of development or in personnel. Once the Nunavut Water Board approves the spill contingency plan, this plan shall be updated annually, as a condition of the water license, to reflect changes in operation and technology.

Copies of this spill contingency plan will be readily available in all locations of concern at the site as well as with personnel entrusted with spill response duties.

## **Appendix A: Product Information**

Gasoline

Approximately 20-30 barrels of gasoline will be transported in drums by ATV and will be stored with the rest of the camp equipment. Due to the quantity of gasoline that will be transported, there are no permits or authorizations required.

### http://www.brownoil.com/msdsgasoline.htm

MSDS	Material Safety Data Sheet for Gasoline					
Definition of terms	1. <u>Chemical Product</u>					
<u>or terms</u>	MSDS Number: U4080					
	MSDS Date: 01-1-99					
	Product Name: Gasoline					
	24 Hour Emergency Phone: (210) 979-8346 Transportation Emergencies: Call Chemtrec at 1-800-424-9300 MSDS Assistance: (210) 592-4593					
	Chemical Name: Gasoline Cas Number: 8006-61-9					
	Synonyms/Common Names: This Material Safety Data Sheet applies to the following product descriptions for Hazard Communication purposes only. Technical specifications vary greatly depending on the product, and are not reflected in this document. Consult specification sheets for technical information.  Unleaded Ggasoline Blendstocks/Subgrades- all types, grades, octanes, and vapor pressures.  California Air Resources Board (Carb) Gasoline- all grades, octanes, vapor pressures, and oxygenate blends.  Reformulated Gasoline (RFG)-all grades, octanes, vapor pressures, and oxygenate blends.  California Reformulated Gasoline (CARFG)-all grades, octanes, vapor pressures, and oxygenate blends.  Conventional Gasoline-all grades, octanes, vapor pressures, and oxygenate blends.					
	2. <u>Composition, Information On Ingredients</u> Product Use: This product is intended for use as a fuel in engines or for use in engineered processes. Use in other applications may result in higher exposures and require additional controls, such as local exhaust ventilation and personal protective equipment.					
	<b>Description:</b> Reformulated gasoline is a complex mixture of hydrocarbons from a variety of chemical processes blended to meet standardized product specifications. Composition varies greatly and includes C? to C? hydrocarbons with a boiling range of about 80-473 degrees F. The following is a pon-exhaustive list of common					

about 80-473 degrees F. The following is a non-exhaustive list of common

components, typical percentage ranges in product, and occupational exposure limits for each. Functional and performance additives may also be present at concentrations below reporting thresholds.

Component or Material Name	%	CAS Number	ACGIH Limits TLV STEL Units	OSHA Exposure Limits PEL STEL C/P – Units
Gasoline	90-100	Mixture	300500ppm	NANANA
Butane	<9	106-97-8	800NAppm	NANANA
Pentane	<6	109-66-0	600750ppm	1000NANA—ppm
n-Hexane	<4	110-54-3	50NAppm	500NANA—ppm
Hexan(other isomers)	<8	NA	5001,000ppm	NANANA
Benzene	1.2 - 4.9	7-4-2	0.52.5ppm	15NA—ppm
N-heptane	<2	14-82-5	400500ppm	500NANA—ppm
Ethylbenzene	<2	100-41-4	100125ppm	100NANA—ppm
Xylene (o,m,p, - isomers)	<11	1330-20-7	100150ppm	100NANA—ppm
Cyclohexane	<2	110-82-7	300NAppm	300NANA—ppm
Trimethylbenzene	<4	25551-13-7	25NAppm	NA-NA-NA
Methyl-t-butyl ether (MTBE)	0-15	1634-04-4	40NAppm	NA-NA-NA
Toluene	<12	108-88-3	50-NA-ppm	200-300/500-NA-ppm
Ethyl-t-butyl ether (ETBE)	0-7	637-92-3	N/A-NA-ppm	NA-NA-NA
t-amyl-methyl-ether	0-5	994-05-8	N/A-NA-ppm	NA-NA-NA
Ethanol	0-11	64-17-5	1,000-NA-ppm	1,000-NA-NA-ppm

C=Ceiling concentration not to be exceeded at any tume. P= Peak concentration for a single 10 minute exposure per day.

#### 3. Hazards Identification

#### **Health Hazard Data:**

- **1.** The major effect of exposure to this product is central nervous system depression and polyneuropathy.
- **2.** Studies have shown that repeated exposure of laboratory animals to high concentrations of whole gasoline vapors at 67,262 and 2056 ppm has caused kidney damage and cancer of the kidney in rats and liver cancer in mice.

- **3.** LARC has listed gasoline as possibly carcinogenic (2B) to humans with limited evidence in humans in the absence of sufficient evidence in experimental animals. NIOSH lists gasoline as a carcinogen with no further classification.
- **4.** N-heptane and cyclohexane cause narcosis and irritation of eyes and mucous membranes. Cyclohexane has been reported to cause liver and kidney changes in rabbits. N-heptane has been reported to cause polyneuritis following prolonged exposure.
- **5.** ACGIH lists benzene a human carcinogen with and assigned TLV of 0.5 ppm 8 hour TWA and a STEL of 2.5 ppm; IARC, NTP \$ OSHA show sufficient evidence for classifying Benzene as a human carcinogen, see 29 CGR 1910.1028 for current PEL of 1 ppm and specific actions to take. Studies have shown that benzene can induce leukemia at concentrations as low as 1 ppm. Significant elevations of chromosomal aberrations have been corroborated among workers exposed to levels at mean concentrations less than 10 ppm. Based on risk assessment studies by Rinsky, an individual inhaling 1 ppm of benzene for 40 years, the odds of benzene-induced leukemic death were 1.7 times higher than those of unexposed workers.
- **6.** MTBE is a mild irritant to the eye with an LC50 of 85~mg/m3 on 4~hr. exposure and an LD50  $\sim 4~\text{ml/Kg}$  (RATS). An increase in anesthesia with increasing concentration (250,500 & 1000 ppm ) was observed during a 90 day Test exposure. ACGIH has listed MTBE as an animal carcinogen (A3) based on tests in experimental animals at relatively high dose levels, by routes of administration, at sites, of histologic types, or by mechanisms not considered relevant to worker exposure. Available evidence suggests that MTBE is not likely to cause cancer in humans except under uncommon or unlikely routes of levels of exposure.
- **7.** Trimethylbenzene (pseudocumene (1,2,4,) & mesitylene (1,2,5,)) has a PEL and TLV of 25 ppm 8 hr. TWA; the isomers may cause nervousness, tension, and anxiety and asthmatic bronchitis.
- **8.** n-Hexane has been shown to cause polyneuropathy (peripheral nerve damage) after repeated and prolonged exposure, other hexanes show narcotic effects at 1000 ppm and are not metabolized like n-hexane.
- **9.** Toluene can cause impairment of coordination and momentary loss of memory (200-500 ppm); Palpations, extreme weakness and pronounced loss of coordination (500-1500). The 100 ppm 8 hr. TWA and the 150 ppm STEL provides adequate protection.
- **10.** The toxicological effects of ETBE and TAME have not been thoroughly investigated. ETBE and TAME are expected to be an inhalation hazard and a severe eye and moderate skin irritant.

Hazards of Combustion Products: Carbon monoxide and carbon dioxide can be found in the combustion products of this product and other forms of hydrocarbon combustion. Carbon monoxide in moderate concentrations can cause symptoms of headache, nausea, vomiting, increased cardiac output, and confusion. Exposure to higher concentrations of carbon monoxide can cause loss of consciousness, heart damage, brain damage, and/or death. Exposure to high concentrations of carbon dioxide can cause simple asphyxiation by displacing available oxygen. Combustion of this and other similar materials should only be carried out in well ventilated areas.

#### Diesel Fuel

Approximately 200 containers (45 gallon barrels) of diesel will be transported in drums by ATV and stored with the rest of the camp equipment. Due to the quantity of diesel that will be transported, there are no permits or authorizations required.

http://www.equivashellmsds.com/

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MATERIAL SAFETY DATA SHEET
Review Date: 04/29/2003
SECTION 1
            PRODUCT AND COMPANY IDENTIFICATION
PRODUCT: GN LS Diesel 2 Winter 65/35
MSDS NUMBER: 400609E - 2
PRODUCT CODE(S): 02925
SECTION 2
            PRODUCT/INGREDIENTS
______
CAS# CONCENTRATION INGREDIENTS
Mixture 100 %weight #2 Diesel
68814-87-9 0 - 99.99 %weight Full Range Straight Run Middle
Distillate
                             Light Catalytic Cracked Distillate
Benzene
64741-59-9 0 - 39.99 %weight
71-43-2 0.01 - 0.64 %weight
7704-34-9 0 - 0.04 %weight
                               Sulfur
NOTE: H2S is a naturally occuring constituent in the petroleum stream
not added separately to the product.
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#### SECTION 3 HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

Appearance & Odor: Bright and clear liquid (Tax Exempt Diesels - pale red

liquid). Oil-type odor.

 ${\tt Health\ Hazards:\ Hydrogen\ sulfide\ (H2S),\ an\ extremely\ flammable\ and\ toxic\ gas,}$ 

may be present. Causes severe skin irritation. Toxic and harmful if inhaled.

May be harmful or fatal if swallowed. Do not induce vomiting. May cause

aspiration pneumonitis.

Physical Hazards: Combustible Liquid.

NFPA Rating (Health, Fire, Reactivity): 2, 2, 0

Hazard Rating: Least - 0 Slight - 1 Moderate - 2 High -

Extreme - 4

#### Inhalation:

In applications where vapors (caused by high temperature) or mists (caused by

mixing or spraying) are created, breathing may cause a mild burning sensation

in the nose, throat and lungs. Toxic and harmful if inhaled. Hydrogen Sulfide (H2S) and other hazardous vapors may evolve and collect in the headspace of storage tanks or other enclosed vessels. Hydrogen Sulfide is an

extremely flammable, toxic gas. Inhalation of vapors, mist or fumes (generated at high temperatures) may cause irritation to the nose, throat and respiratory tract.

#### Eye Irritation:

If irritation occurs, a temporary burning sensation, minor redness, swelling,

and/or blurred vision may result.

#### Skin Contact:

Severely irritating to the skin causing pain, redness and swelling. Other

adverse effects not expected from brief skin contact.

#### Ingestion:

This material may be harmful or fatal if swallowed. Ingestion may result in

vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even

small quantities may result in aspiration pneumonitis. Generally considered

to have a low order of acute oral toxicity.

#### Other Health Effects:

Carcinogenic in animal tests. It is probable that the material causes cancer

in laboratory animals.

Material may release hydrogen sulfide (H2S), a highly toxic and extremely

flammable gas, when heated to 180 Degrees F or higher. H2S can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea,

vomitting, diarrhea, and pulmonary edema. The odor ("rotten egg") threshold

is  $0.02~{\rm ppm}$ . Do not depend on sense of smell for warning; H2S rapidly deadens the sense of smell.

Refer to Section 11, Toxicological Information, for specific information on  $% \left( 1\right) =\left( 1\right) +\left( 1\right)$ 

the following effects:

#### Signs and Symptoms:

Irritation as noted above. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis (bluish skin); in severe cases death may occur.

For additional health information, refer to section 11.

SECTION 4 FIRST AID MEASURES

#### Inhalation:

Vaporization of H2S that has been trapped in clothing can be dangerous to

rescuers. Maintain respiratory protection to avoid contamination from victim

to rescuer. Mechanical ventilation should be used to resuscitate the victim.

 $\ensuremath{\mathsf{DO}}$  NOT attempt to rescue victim unless proper respiratory protection is worn.

If the victim has difficulty breathing or tightness of the chest, is dizzy,

vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as

required and transport to the nearest medical facility.

#### Skin:

Remove contaminated clothing. Flush with large amounts of water for at least

15 minutes and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

#### Eye:

Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30

minutes. If redness, burning, blurred vision or swelling occur, transport to

nearest medical facility for additional treatment.

#### Ingestion:

DO NOT take internally. In general no treatment is necessary unless large

quantities are swallowed, however, get medical advice. Have victim

mouth out with water, then drink sips of water to remove taste from mouth. If

vomiting occurs spontaneously, keep head below hips to prevent aspiration.

#### Note to Physician:

If more than  $2.0 \mathrm{ml/kg}$  body weight has been ingested and vomiting has not

occurred, emesis should be induced with supervision. Keep victim's head below

hips to prevent aspiration. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage using a

cuffed endotracheal tube should be considered.

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SECTION 5 FIRE FIGHTING MEASURES

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Flash Point [Method]: >125 °F/>51.67 °C [ Closed Cup]

Autoignition Temperature: 500 °F/260 °C Flammability in Air: 0.5 - 4.4 %volume

#### Extinguishing Media:

Material will float and can be re-ignited on surface of water. Use water fog,  $\$ 

'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do

not use a direct stream of water.

#### Fire Fighting Instructions:

CAUTION! COMBUSTIBLE. Clear fire area of all non-emergency personnel. Do

not enter confined fire space without full bunker gear (helmet with face

shield, bunker coats, gloves and rubber boots), including a positive pressure,

NIOSH approved, self-contained breathing apparatus. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas

exposed to direct flame contact should be cooled with large quantities of

water (500 gallons water per minute flame impingement exposure) to prevent

weakening of container structure.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures:

CAUTION! COMBUSTIBLE. Eliminate potential sources of ignition. Handling

equipment must be bonded and grounded to prevent sparking.

Wear appropriate personal protective equipment when cleaning up spills. Refer  $\,$ 

to Section 8.

#### Spill Management:

Shut off source of leak if safe to do so. Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or

other suitable material. Place in non-leaking container and seal tightly for

proper disposal.

#### Reporting:

CERCLA: Product is covered by EPA's Comprehensive Environmental Response,

Compensation and Liability Act (CERCLA) petroleum exclusion. Releases to air,

land, or water are not reportable under CERCLA (Superfund).

 ${\tt CWA:}$  This product is an oil as defined under Section 311 of {\tt EPA's} Clean Water

Act (CWA). Spills into or leading to surface waters that cause a sheen must be

reported to the National Response Center, 1-800-424-8802.

SECTION 7	HANDLING AND	STORAGE

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Precautionary Measures:

CAUTION! COMBUSTIBLE. Do not breathe material. Keep container closed. Use

only with adequate ventilation. Avoid heat, open flames, including pilot

lights, and strong oxidizing agents. Use explosion-proof ventilation to  $% \left( 1\right) =\left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right)$ 

prevent vapor accumulation. Ground all handling equipment to prevent

sparking. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Material may release hydrogen sulfide (H2S), a highly toxic and

flammable gas, when heated to 180 Degrees F or higher. H2S may collect in the

headspace of the container.

#### Handling:

Surfaces that are sufficiently hot may ignite liquid material.

#### Storage:

Keep liquid and vapor away from heat, sparks and flame. Extinguish pilot

lights, cigarettes and turn off other sources of ignition prior to use

until all vapors have dissipated. Use explosion-proof ventilation indoors and

in laboratory settings.

#### Container Warnings:

Keep containers closed when not in use. Containers, even those that have been

emptied, can contain explosive vapors. Do not cut, drill, grind, weld

perform similar operations on or near containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Benzene ACGIH TLV TWA: 0.5 ppmv STEL: 2.5 ppmv Notation: Skin Benzene OSHA PEL TWA: 1 ppmv STEL: 5 ppmv Diesel Fuel, as total hydrocarbons ACGIH TLV TWA: 100 mg/m3

Carbon dioxide ACGIH - TLV TWA: 5000 ppmm STEL: 30000 ppmm

Carbon dioxide OSHA - PEL STEL: 30000 ppmm

Carbon dioxide OSHA - PEL\_IS TWA: 10000 ppmm Carbon monoxide OSHA - PEL TWA: 35 ppmv Ceiling: 200 ppmv

Carbon monoxide Combustion

#### EXPOSURE CONTROLS

Adequate explosion-proof ventilation to control airborne concentrations.

#### PERSONAL PROTECTION

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation.

Information on the selection of eye, skin and respiratory protection for use

with this material is provided below.

#### Eye Protection:

Chemical Goggles - If liquid contact is likely., or Safety glasses with side shields

#### Skin Protection:

Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and

may include gloves, boots, suits and other items. The selection(s) should

take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:

Neoprene, or Nitrile Rubber

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level

which is adequate to protect worker health, an approved respirator must be

worn. Respirator selection, use and maintenance should be in accordance with

the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:

Supplied-Air Respirator. Air-Purifying Respirator for Organic Vapors. Self-contained breathing apparatus for use in environments with unknown concentrations or emergency situations.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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Appearance & Odor: Bright and clear liquid (Tax Exempt Diesels - pale red

liquid). Oil-type odor.

Substance Chemical Family: Petroleum Hydrocarbon, Fuel Oil Appearance: Bright and clear liquid (Tax Exempt Diesels - pale red

liquid).

Auto Ignition Temperature: 500 °F

Flammability in Air: 0.5 - 4.4 %volume

Flash Point: > 125 °F [Closed Cup]

Specific Gravity: 0.85 Typical

Stability: Stable

Vapor Pressure: 0.02 mmHg Typical [Calculated]

Viscosity: 1.9 - 4.1 cSt @ 40 °C

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SECTION 10 REACTIVITY AND STABILITY

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Stability:

Material is stable under normal conditions.

Conditions to Avoid:

Avoid heat and open flames.

Materials to Avoid:

Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products:

Thermal decomposition products are highly dependent on combustion conditions.

A complex mixture of airborne solids, liquids and gases will evolve when this

material undergoes pyrolysis or combustion. Aldehydes, Carbon Monoxide,

Dioxide, Ketonesand other unidentified organic compounds may be formed upon combustion.

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SECTION 11 TOXICOLOGICAL INFORMATION

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Acute Toxicity

Dermal LD50 > 5 ml/kg(Rabbit) OSHA: Non-Toxic Based on similar material(s)

Eye Irritation Non-Irritating [Rabbit] OSHA: Non-Irritating Based on

similar material(s)

Oral LD50 9 ml/kg(Rat) OSHA: Non-Toxic Based on similar material(s)

Skin Irritation Extremely irritating [Rabbit] OSHA: Irritating Based on

similar material(s)

Carcinogenicity Classification #2 Diesel NTP: No IARC: No ACGIH: No OSHA: No Benzene NTP: Yes IARC: Carcinogen (1) ACGIH: A1 OSHA: Yes Light Catalytic Cracked Distillate NTP: No IARC: Possible Carcinogen (2B) ACGIH: No OSHA: No Carcinogenicity Related materials have caused the development of skin tumors in lifetime mouse skin painting studies. However, these tumors have a long latency period may be associated with the repeated severe irritation caused by the materials. Prolonged and repeated exposure to high concentrations (10s ppm) of benzene may cause serious injury to blood-forming organs and is associated with anemia (depletion of blood cells) and is linked to the later development of acute myelogenous leukemia (AML). Genotoxicity A closely related component (Hydrodesulfurized Middle Distillate) did cause detectable mutations in two different in vivo (live animal) studies. Some evidence of genotoxicity was seen in separate in vitro (test tube) studies, usually in cases where the test material was metabolically activated. \_\_\_\_\_\_ ECOLOGICAL INFORMATION SECTION 12 Environmental Impact Summary: There is no ecological data available for this product.

SECTION 13 DISPOSAL CONSIDERATIONS

RCRA Information:

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Under RCRA, it is the responsibility of the user of the material to determine,

at the time of the disposal, whether the material meets RCRA criteria for

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hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.

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SECTION 14 TRANSPORT INFORMATION

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US Department of Transportation Classification

Proper Shipping Name: Diesel Fuel Identification Number: NA1993

Hazard Class/Division: Combustible Liquid

Packing Group: III

Hazardous Substance/Material RQ: Benzene /

1546.2005 lbs

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or

highway in a tank with a capacity of 3500 gallons or more, it is

subject to

these requirements. Mixtures or solutions containing 10% or more of

tnis

product may also be subject to this rule.

Emergency Response Guide #128

International Air Transport Association

Hazard Class/Division: 3 (Flammable Liquid)

Identification Number: UN1202
Packing Group: III

Proper Shipping Name: Diesel Fuel

International Maritime Organization Classification

Hazard Class/Division: 3 (Flammable Liquid)

Identification Number: UN1202
Packing Group: III

Proper Shipping Name: Diesel Fuel

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SECTION 15 REGULATORY INFORMATION

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FEDERAL REGULATORY STATUS

OSHA Classification:

Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Ozone Depleting Substances (40 CFR 82 Clean Air Act):

This material does not contain nor was it directly manufactured with any Class

I or Class II ozone depleting substances.

Superfund Amendment & Reauthorization Act (SARA) Title III:

SARA Extremely Hazardous Substances (302/304):

Hydrogen sulfide RQ 100 lbs Reportable Spill => 711013 lbs or

100334 gal

SARA Hazard Categories (311/312):

Immediate Health:YES Delayed Health:YES Fire:YES Pressure:NO Reactivity:NO

SARA Toxic Release Inventory (TRI) (313): Benzene

Toxic Substances Control Act (TSCA) Status:
This material is listed on the EPA/TSCA Inventory of Chemical

Other Chemical Inventories:

Australian AICS, Canadian DSL, European EINECS, Korean Inventory,

State Regulation

Substances.

The following chemicals are specifically listed by individual states; other

product specific health and safety data in other sections of the MSDS  $\ensuremath{\mathsf{may}}$  also

be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

WARNING: This product contains a chemical(s) known to the State of California

to cause cancer.

WARNING: This product contains a chemical(s) known to the State of California

to cause birth defects or other reproductive harm.

New Jersey Right-To-Know Chemical List:

Benzene (71-43-2) 0.01 - 0.64 %weight Carcinogen Benzene (71-43-2) 0.01 - 0.64 %weight Mutagen

Light Cat Cracked Distillate 0 - 39.99 %weight Mutagen

Pennsylvania Right-To-Know Chemical List:

Benzene (71-43-2) 0.01 - 0.64 %weight Spec Haz Sub/Env Hazardous

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SECTION 16 OTHER INFORMATION

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Revision#: 2

Review Date: 04/29/2003 Revision Date: 04/29/2003

Revisions since last change (discussion): This Material Safety Data

Sheet

(MSDS) has been newly reviewed to fully comply with the guidance

contained in

the ANSI MSDS standard (ANSI Z400.1-1998). We encourage you to take

the

opportunity to read the MSDS and review the information contained therein.

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SECTION 17 LABEL INFORMATION

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READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF

PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL

IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND

MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR

OTHER RELATED REGULATORY REQUIREMENTS.

PRODUCT CODE(S): 02925

GN LS Diesel 2 Winter 65/35

#### WARNING!

COMBUSTIBLE LIQUID! MAY BE FATAL IF INHALED. CAUSES SEVERE SKIN TRRITATION

ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS

BENZENE WHICH IS A CANCER HAZARD - LINKED TO DEVELOPMENT OF ACUTE MYELOGENOUS

LEUKEMIA.

Refer to Section 11, Toxicological Information, for specific information on

the following effects:

Precautionary Measures:

Avoid heat and open flames. Hydrogen Sulfide and other hazardous vapors may

evolve and collect in the headspace of storage tanks or other enclosed vessels. Hydrogen Sulfide is an extremely flammable, toxic gas. Respiratory

protection should be worn when venting tanks. Avoid breathing of vapors,

fumes, or mist. Do not take internally. Use only with adequate ventilation.

Avoid contact with eyes, skin and clothing. Keep container closed when not in

use. Wash thoroughly after handling.

#### FIRST AID

Inhalation: DO NOT attempt to rescue victim unless proper respiratory protection is worn. Vaporization of H2S that has been trapped in clothing can

be dangerous to rescuers. Maintain respiratory protection to avoid contamination from victim to rescuer. Mechanical ventilation should be used

to resuscitate the victim. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen

with rescue breathing or  $\ensuremath{\mathsf{CPR}}$  as required and transport to the nearest medical

facility.

Skin Contact: Remove contaminated clothing. Flush with large amounts of

water for at least 15 minutes and follow by washing with soap if available.

If redness, swelling, pain and/or blisters occur, transport to the nearest

medical facility for additional treatment.

Eye Contact: Flush eyes with plenty of water while holding eyelids open.

Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling

occur, transport to nearest medical facility for additional treatment. Ingestion: DO NOT take internally. If vomiting occurs spontaneously, keep

head below hips to prevent aspiration. Have victim rinse mouth out with

water, then drink sips of water to remove taste from mouth. In general no

treatment is necessary unless large quantities are swallowed, however, get

medical advice.

#### FIRE

In case of fire, Use water fog, 'alcohol foam', dry chemical or carbon

dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

Material will float and can be re-ignited on surface of water. SPILL OR LEAK

Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or

other suitable material. Place in non-leaking container and seal tightly for proper disposal.

CONTAINS: Full Range Straight Run Middle Distillate, 68814-87-9; Light Catalytic Cracked Distillate, 64741-59-9; Benzene, 71-43-2; Sulfur, 7704-34-9

NFPA Rating (Health, Fire, Reactivity): 2, 2, 0

#### TRANSPORTATION

US Department of Transportation Classification

Proper Shipping Name: Diesel Fuel Identification Number: NA1993

Hazard Class/Division: Combustible Liquid

Packing Group: III

Hazardous Substance/Material RQ: Benzene / 1546.2005 lbs

Oil: This product is an oil under  $49 \, \mathrm{CFR}$  (DOT) Part 130. If shipped by rail or

highway in a tank with a capacity of 3500 gallons or more, it is subject to

these requirements. Mixtures or solutions containing 10% or more of this

product may also be subject to this rule.

Emergency Response Guide #128

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65).

WARNING: This product contains a chemical(s) known to the State of California

to cause cancer.

WARNING: This product contains a chemical(s) known to the State of California

to cause birth defects or other reproductive harm.

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO

US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT: IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD

COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE

INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH

RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN.

YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR

DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH

SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT

TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE

GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE

UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA,

IS THE PROPERTY OF SHELL OIL PRODUCTS US AND IS NOT TO BE THE SUBJECT OF SALE

OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF SHELL OIL PRODUCTS US.

44156-11800-100R-04/05/2005

#### Oil

Approximately 100 litres of oil will be transported in drums by ATV and stored with the rest of the camp equipment. Due to the small quantity of oil that will be transported, there are no permits or authorizations required.

http://www.equivashellmsds.com/

MATERIAL SAFETY DATA SHEET

MSDS: 61054E-02 01/04/99

GAS ENGINE OIL 30 (SCP)

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE

ASSISTANCE

EQUIVA SERVICES: 877-276-7283

CHEMTREC: 800-424-9300

GENERAL MSDS

877-276-7285

SECTION I NAME

PRODUCT: GAS ENGINE OIL 30 (SCP)
CHEM NAME: MIXTURE (SEE SECTION II-A)

CHEM FAMILY: PETROLEUM HYDROCARBON; INDUSTRIAL OIL

SHELL CODE: 67169

HEALTH HAZARD: 1 FIRE HAZARD: 1 REACTIVITY: 0

#### SECTION II-A PRODUCT/INGREDIENT

NO. COMPOSITION CAS NO. PERCENT

P GAS ENGINE OIL 30 (SCP)

1 SOLVENT DEWAXED, HEAVY PARAFFINIC DISTILLATE 64742-65-0 60-70

2 HYDROTREATED HEAVY PARAFFINIC DISTILLATE 64742-54-7 30-40
3 ADDITIVES MIXTURE <10

NFPA HAZARD RATING: HEALTH 0 FIRE 1 REACTIVITY 0

#### SECTION II-B ACUTE TOXICITY DATA

NO. ACUTE ORAL LD50 ACUTE DERMAL LD50 ACUTE INHALATION LC50

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P NOT AVAILABLE

1 >5.0 G/KG, RAT\* >5 G/KG, RABBIT\* 2 >5.0 G/KG, RAT\* >5 G/KG, RABBIT\*

\* BASED ON API STUDIES

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE

THAN

MINIMALLY IRRITATING TO THE EYES.

SKIN CONTACT: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE

THAN

MILDLY IRRITATING TO THE SKIN. PROLONGED AND REPEATED

CONTACT

MAY LEAD TO VARIOUS SKIN DISORDERS SUCH AS DERMATITIS,

OIL ACNE

OR FOLLICULITIS.

INHALATION: INHALATION OF VAPORS (GENERATED AT HIGH TEMPERATURES

ONLY) OR OIL

MIST FROM THIS PRODUCT MAY CAUSE MILD IRRITATION OF THE

UPPER

RESPIRATORY TRACT.

INGESTION: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE

THAN

SLIGHTLY TOXIC IF SWALLOWED.

SIGNS AND SYMPTOMS: IRRITATION AS NOTED ABOVE.

AGGRAVATED MEDICAL CONDITIONS:

PREEXISTING SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO

THIS PRODUCT.

OTHER HEALTH EFFECTS:

THIS PRODUCT AND ITS COMPONENTS ARE NOT CLASSIFIED AS CARCINOGENS BY INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC), NATIONAL TOXICOLOGY

PROGRAM (NTP) OR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

SECTION IV OCCUPATIONAL EXPOSURE LIMITS COMP OSHA ACGIH NO. PEL/TWA PEL/CEILING TLV/TWA TLV/STEL OTHER ----------P 5 MG/M3\* NONE 5 MG/M3\* 10 MG/M3\* NONE \*OIL MIST, MINERAL SECTION V EMERGENCY AND FIRST AID PROCEDURES EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND WIPE EXCESS OFF. WASH AND WATER OR A WATERLESS HAND CLEANER FOLLOWED BY SOPA AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. INHALATION: REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. IN GENERAL NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER, GET MEDICAL ADVICE. NOTE TO PHYSICIAN: IN GENERAL, EMESIS INDUCTION IS UNNECESSARY IN HIGH VISCOSITY, LOW VOLATILITY PRODUCTS, I.E., MOST OILS AND GREASES. SECTION VI SUPPLEMENTAL HEALTH INFORMATION NONE IDENTIFIED.

SECTION VII PHYSICAL DATA

BOILING POINT (DEG F): SPECFIC GRAVITY (H2O = 1): VAPOR PRESSURE

(MM HG):

>550 0.8899 <0.1

MELTING POINT (DEG F): SOLUBILITY IN WATER: VAPOR DENSITY

(AIR = 1):

10 (POUR POINT) NEGLIGIBLE NOT

AVATLABLE

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1):NOT AVAILABLE APPEARANCE AND ODOR:WHITE LIQUID. SLIGHT HYDROCARBON ODOR. PHYS/CHEM PROPERTIES:VISCOSITY: 11.8-12.5 (CS @ 104 DEG F).

SECTION VIII

#### FIRE AND EXPLOSION HAZARDS

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FLASH POINT AND METHOD: 445 DEG F (PMCC)

FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER: N/AV HIGHER: N/AV EXTINGUISHING MEDIA:

USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF

WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER. SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:

MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE-SPACE

WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND

RUBBER BOOTS), INCLUDING A POSITIVE-PRESSURE NIOSH-APPROVED SELF-CONTAINED

BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER. UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE IDENTIFIED

SECTION IX

REACTIVITY

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STABLITY: STABLE HAZARDOUS POLYMERIZATION WILL NOT OCCUR CONDITIONS AND MATERIALS TO AVOID:

AVOID HEAT, OPEN FLAMES AND OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS:

THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID, PARTICULATES AND

GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION.

CARBON MONOXIDE AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON

COMBUSTION.

SECTION X

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION:

IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SECTION IV) USE

A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR

1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING

RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING

WEAR CHEMICAL-RESISTANT GLOVES AND OTHER PROTECTIVE CLOTHING AS REOUIRED TO

MINIMIZE SKIN CONTACT. WEAR SAFETY GOGGLES TO AVOID EYE CONTACT. TEST DATA

FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE

THE BEST PROTECTION IS PROVIDED BY NITRILE GLOVES.

ADDITIONAL PROTECTIVE MEASURES:

NONE IDENTIFIED

#### SECTION XI

#### ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES:

MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT WHEN CLEANING

UP LARGE SPILLS. \*\*\* LARGE SPILLS \*\*\* WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE

AND CONTAIN. REMOVE WITH VACCUM TRUCKS OR PUMP TO STORAGE SALVAGE VESSELS.

SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE

MATERIALS; DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE

RESIDUE. \*\*\* SMALL SPILLS \*\*\* TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE

OF PROPERLY.

SECTION XII

#### SPECIAL PRECAUTIONS

MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING.

SMOKING OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE

REUSE. PROPERLY DISPOSE OF CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES,

THAT CANNOT BE DECONTAMINATED.

STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILLATION. KEEP AWAY FROM OPEN

FLAMES AND HIGH TEMPERATURES.

SECTION XIII

TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:

NOT HAZARDOUS BY D.O.T. REGULATIONS

DOT PROPER SHIPPING NAME: NOT APPLICABLE

OTHER REQUIREMENTS: NOT APPLICABLE

SECTION XIV

OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL

SUBSTANCES.

PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN ATR ACT

AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN

WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING

SUBSTANCES.

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ATTACHED ENVIRONMENTAL DATA

SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV STATE REGULATORY INFORMATION STATE LISTED COMPONENT CAS NO PERCENT STATE CODE BASED ON INFORMATION AVAILABLE, THIS PRODUCT DOES NOT CONTAIN ANY CHEMICAL SUBSTANCE REGULATED BY A SPECIFIC STATE LIST.

SECTION XVI

SPECIAL NOTES

MSDS - SECTION II-A AND EDS - SECTION I HAVE BEEN REVISED TO UPDATE INGREDIENTS. THE OSHA HAZARD EVALUATION AND REGULATORY STATUS OF THE

PRODUCT HAVE NOT CHANGED.

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE

TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT DATA. IT IS

PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD

COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH

RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR

APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN

AS A RESULT OF THAT DATA, IS THE PROPERTY OF EQUIVA SERVICES, LLC AND IS NOT TO

BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF

EQUIVA SERVICES, LLC.

ENVIRONMENTAL DATA SHEET EDS: 61054E

GENERAL MSDS

GAS ENGINE OIL 30 (SCP)

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE

ASSISTANCE

EQUIVA SERVICES: 877-276-7283 877-276-7285

CHEMTREC: 800-424-9300

PRODUCT CODE: 67169

SECTION I PRODUCT COMPOSITION

NO. COMPOSITION CAS PERCENT

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P GAS ENGINE OIL 30 (SCP) MIXTURE 100

1 SOLVENT DEWAXED HEAVY PARAFFINIC DISTILL 64742-65-0 60-70

ATE

2 HYDROTREATED HEAVY PARAFFINIC DISTILLATE 64742-54-7 30-40

3 ADDITIVES MIXTURE <10

SECTION II SARA TITLE III INFORMATION

SECTION II SAKA IIIDE III INFORMATION

NO. EHS RQ EHS TPQ SEC-313 313 CATEGORY 311/312 CATEGORY

(\*1) (\*2) (\*3) (\*4)

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BASED ON THE DATA AVAILABLE THIS PRODUCT IS NOT REGULATED BY SARA, TITLE III.

\_\_\_\_

RELEASE INVENTORY FORM

HEALTH: H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD

H-2 = DELAYED (CHRONIC) HEALTH HAZARD

<sup>\*1 =</sup> REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC 302

<sup>\*2 =</sup> THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302

<sup>\*3 =</sup> TOXIC CHEMICAL, SEC 313

<sup>\*4 =</sup> CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC

<sup>\*5 =</sup> CATEGORY (FOR AGGREGATE REPORTING REQUIREMENTS UNDER SARA 311, 312)

PHYSICAL: P-3 = FIRE HAZARD

P-4 = SUDDEN RELEASE OF PRESSURE HAZARD

P-5 = REACTIVE HAZARD

SECTION III

#### ENVIRONMENTAL RELEASE INFORMATION

THIS PRODUCT IS COVERED BY EPA'S COMPREHENSIVE ENVIRONMENTAL RESPONSE,

COMPENSATION AND LIABILITY ACT (CERCLA) PETROLEUM EXCLUSION. THEREFORE,

RELEASES TO AIR, LAND, OR WATER ARE NOT REPORTABLE UNDER CERCLA ("SUPERFUND"). HOWEVER, UNDER SECTION 311 OF EPA'S CLEAN WATER ACT (CWA),

THIS PRODUCT IS CONSIDERED AN OIL. AS SUCH, SPILLS INTO OR LEADING TO

SURFACE WATERS THAT CAUSE A SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE

CENTER, 800-424-8802.

THIS PRODUCT IS AN OIL UNDER 49 CFR (DOT) PART 130. IF SHIPPED BY

HIGHWAY IN A TANK WITH A CAPACITY OF 3,500 GALLONS OR MORE, IT IS SUBJECT TO

THE REQUIREMENTS OF PART 130. MIXTURE SOLUTIONS IN WHICH THIS PRODUCT IS

PRESENT AT 10% OR MORE MAY ALSO BE SUBJECT TO THIS RULE.

SECTION IV

#### RCRA INFORMATION

IF THIS PRODUCT BECOMES A WASTE, IT WOULD NOT BE A HAZARDOUS WASTE BY RCRA

CRITERIA (40 CFR 261). PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS.

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA

TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT DATA. IT IS

PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD

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RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

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APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT

DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN

AS A RESULT OF THAT DATA, IS THE PROPERTY OF EQUIVA SERVICES, LLC AND IS NOT TO

BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF

EQUIVA SERVICES, LLC.

77267-4414

FOR ADDITIONAL INFORMATION ON THIS ENVIRONMENTAL DATA PLEASE CALL (877) 276-7285

FOR EMERGENCY ASSISTANCE PLEASE CALL

EQUIVA SERVICES LLC: (877) 276-7283 CHEMTREC: (800) 424-9300

## **Appendix B: Supporting Documents**

This section includes a listing of reference materials and government reports, which are relevant to the types of hazardous material stored, handled, or transported and to the environmental setting of the areas where impacts could occur.

- Public Water Supply Regulations, Ch. P-23, Public Health Act.
   <a href="mailto:ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/">ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/</a>
- Contingency Planning and Spill Reporting in the NWT: A Guide to the New Regulations. <a href="mailto:ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMA">ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMA</a> TION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/
- Guidelines for Contaminated Site Remediation in the NWT.
   <a href="mailto:ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/Guideline%20for%20Site%20Remediation.pdf">ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/Guideline%20for%20Site%20Remediation.pdf</a>
- Territorial Lands Act, Chapter T-7. ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMA TION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/850101territ oriallandact-FTAE.pdf

**Appendix C: Spill Report Form** 



#### **NWT SPILL REPORT**

(Oil, Gas, Hazardous Chemicals or other Materials)

24 - Hour Report Line Phone: (867) 920-8130 Fax: (867) 873-6924

Α	Report Date and Time	B Date and Time of	f spill (if known)	(	C Origin Upda	nal Report te no	Spill Number
D	D Location and map coordinates (if known) and direction (if moving)						
Ε	Partly responsible for spill						
F	Product(s) spilled and estimated quantities (p	provide metric volumes/v	veights if possible)				
G	Cause of spill						
Η	Is spill terminated? If spill is continuing,	, give estimated rate	J Is further spillage pos	10			square meters if possible)
L	Factors effecting spill or recovery (weather co	onditions, terrain, snow o	cover, etc.)	M Contai	inment (natural o	lepression, dikes, etc	<b>.</b> )
N	Action, if any, taken or proposed to contain, r						
0	Do you require assistance?  no yes, describe:	P	ossible hazards to person, p	property, or e	environment; eg:	fire, drink water, fish	or wildlife
Q	Comments or recommendations					FOR SPILL	LINE USE ONLY
						Lead agency	
						Spill significance	
						Lead Agency cont	act and time
						Is this file now clo	sed? yes no
Repo	orted by	Position. Employer, Loc	ation			Telephone	
Repo	orted to	Position. Employer, Loc	ation			Telephone	
Щ							

## **Appendix D: Additional Contact Information**

Northwest Territories/Nunavut 24 Hour Spill Report Line

Tel (867) 920-8130 Fax (867) 873-6924

Nunavut Water Board Tel (867) 360-6338 Fax (867) 360-6369

Environment Canada Tel (867) 669-4700 Fax (867) 873-8185

**Environmental Protection Branch** 

Manager Pollution Control & Air Quality Tel (867) 975-5907 Fax (867) 975-5981

Environmental Protection Government of Nunavut

Indian and Northern Affairs Canada Tel (867) 975-4550 Fax (867) 975-4585

Water Resources Manager

Nunavut Regional Office

Indian and Northern Affairs Canada Tel (867) 975-4280 Fax (867) 975-4286

Land Administration Minister

Nunavut Regional Office

Department of Fisheries and Oceans Tel (867) 979-8000 Fax (867) 979-8039

# **Appendix E: List of Minimum Reportable Quantities of Contaminants**

	SC	SCHEDULE B	
(1)	(2)	(3)	(4)
ITEM NO.	TDGA CLASS	DESCRIPTION OF CONTAMINANT	AMOUNT SPILLED
1.	1	Explosives	Any amount
2.	2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 €
3.	2.2	Compressed gas (non- corrosive, non flammable)	Any amount of gas from containers with a capacity greater than 100 €
4.	2.3	Compressed gas (toxic)	Any amount
5.	2.4	Compressed gas (corrosive)	Any amount
6.	3.1, 3.2, 3.3	Flammable liquid	100 €
7.	4.1	Flammable solid	25 kg
8.	4.2	Spontaneously combustible solids	25 kg
9.	4.3	Water reactant solids	25 kg
10.	5.1	Oxidizing substances	50 ℓ or 50 kg
11.	5.2	Organic Peroxides	1 ℓ or 1 kg
12.	6.1	Poisonous substances	5 ℓ or 5 kg

13.	6.2	Infectious substances	Any amount
14.	7	Radioactive	Any amount
15.	8	Corrosive substances	5 ℓ or 5 kg
16.	9.1 (in part)	Miscellaneous pro- ducts or substances, excluding PCB mixtures	50 ℓ or 50 kg
17.	9.2	Environmentally hazardous	1∉or1kg
18.	9.3	Dangerous wastes	5 ℓ or 5 kg
19.	9.1 (in part)	PCB mixtures of 5 or more parts per million	0.5 ℓ or 0.5 kg
20.	None	Other contaminants	100 <b>&amp;</b> or 100 kg