WHMIS	Personal Protection Equipment	TDG (Ground)
		

1 Identification of the substance/mixture and of the company/undertaking

Product identifier
Trade name: Canadian Crude Oil

SDS Nr: SDS-0001
Chemical description: Petroleum Hydrocarbon

CAS No: 8002-05-9
EC No: 232-298-5

Registration-No: Registration deadline not expired.
Use: Fuel oil for heating and power generation.

Company identification: Freepoint Commodities, LLC
58 Commerce Road
Stamford, Ct. 06902

E-Mail address (competent person): Lou Santore

Lou Santore [LSantore@freepoint.com]

Emergency telephone number: Within the U.S. or Canada: 1 800 424 9300
Outside the U.S. and Canada: +1 703 527 3887
(collect calls accepted)

MSDS prepared by: Paule Patterson, ENERCON Services, Inc.

2 Hazards identification

GHS Classification:

Flammable Liquid – Category 3
Skin Irritation – Category 2
Eye Irritation – Category 2B
Aspiration Hazard – Category 1
Carcinogenicity – Category 2
Acute Toxicity - Inhalation – Category 4
Chronic Aquatic Toxicity – Category 2

GHS LABEL ELEMENTS
Symbol(s)

Signal Word

Danger

CLP Hazard Statements :

PHYSICAL HAZARDS:

H224: Extremely flammable liquid and vapor.

.

HEALTH HAZARDS:

H304: May be fatal if swallowed and enters airways.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to organs or organ systems through prolonged or repeated exposure.
EUH066: Repeated exposure may cause skin dryness or cracking.

ENVIRONMENTAL HAZARDS:

H441: Toxic to aquatic life with long lasting effects**.**

CLP Precautionary statements
Prevention :
P201: Obtain special instructions before using.
P210: Keep away from heat / sparks / open flames / hot surfaces. No smoking.
P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P280: Wear protective gloves / protective clothing / eye protection / face protection.
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
H304: May be fatal if swallowed.

Storage:
P403+P235: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.

Response :
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331: Do NOT induce vomiting.

Disposal:
P501: Dispose of contents and container to appropriate waste site or reclaimer in accordance with local, state, and national regulations.

EC Symbols:


F Highly flammable.
T Toxic.
N Dangerous for the environment.

EC Classification:
Highly flammable. Toxic. Carcinogenic, category 1. Mutagenic, category 2.

EC Risk Phrases:

R10: Flammable

R20: Harmful by inhalation.
R35: Irritating to eyes.
R38: Irritating to skin.
R40: Limited evidence of carcinogenic effects.
R51 / 53: Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R65: Harmful: may cause lung damage if swallowed.
R67: Vapors may cause drowsiness and dizziness.

EC Safety Phrases:
S53 Avoid exposure. Obtain special instructions before use.
S16 Keep away from sources of ignition - No smoking.
S29 Do not empty into drains.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

3 Composition/information on ingredients

CAS Number: 8002-05-9
EC Number: 232-298-5
Molecular Weight: Not applicable to mixtures

Component	CAS Number	Percent	Hazardous
Diesel Fuel Oil (High Sulfur)	8002-05-9	99 - 100%	Yes

* Total Sulfur: <1.0 wt%

4 First aid measures

First Aid: Eyes
In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

First Aid: Skin

Remove contaminated clothing. Flush contaminated areas for at least 15 minutes. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops.

First Aid: Ingestion
DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

First Aid: Inhalation
Keep victim calm. Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

5 Fire-fighting measures

General Fire Hazards

See Section 9 for Flammability Properties.
Use self-contained breathing apparatus in enclosed areas. For massive fires, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn. Always stay away from tanks engulfed in fire.

Unusual Fire or Explosion Hazards

Keep away from heat, sources of ignition and strong oxidizers. This material can react violently with oxidizing agents.

Hazardous Combustion Products

Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, Foam, Carbon Dioxide, Dry Chemical, Halon, and Water Fog. Do not flush down public sewers.

The use of self- contained breathing apparatus and protective clothing is recommended for fire fighters. Avoid inhalation of vapors.

LARGE FIRES: Foam, Carbon Dioxide, Dry Chemical, Halon, and Water Fog. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers. Water may splash and spread flaming liquid. Avoid spreading burning liquid with water used for cooling purposes. Do not flush down public sewers. The use of self- contained breathing apparatus and protective clothing is recommended for fire fighters. Avoid inhalation of vapors.

Unsuitable Extinguishing Media

Water directed at source.

Fire Fighting Equipment/Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other firefighting equipment. Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full face piece and full protective clothing. Isolate area around container involved in fire.

Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied firefighting foam.

6 Accidental release measures

Recovery and Neutralization

Danger, Flammable, eliminate all ignition sources. Equipment used in spill cleanup must be grounded to prevent sparking. Prevent entry into waterways, sewers, and confined areas. Carefully contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container, seal tightly for proper disposal or reclamation.

Emergency Measures

Small Spills:

Evacuate nonessential personnel and remove or secure all ignition sources. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas.

Large Spills (> 55 gallons):

Isolate the hazard area at least 150 feet in all directions and restrict entry to unnecessary personnel. Shut off source of leak only if it can be done so safely or dike and contain the spill. Wear appropriate protective clothing. Remove with vacuum trucks. Soak up residue with sand or other suitable material, place in containers for proper disposal. Flush with water and disposal of flushing solutions as above. Local, state and federal disposal regulations must be followed.

Personal Precautions and Protective Equipment

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of firefighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection - do not discharge solid water stream patterns into the liquid resulting in splashing.

Prevention of Secondary Hazards

None

7 Handling and storage

Handling Procedures

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices.

Handle as a flammable liquid. Keep away from heat, sparks, and open flame! Store in a cool, dry, well-ventilated location, away from any area where the fire hazard may be acute that complies with NFPA 30 "Flammable and Combustible Liquid Code."

Separate from incompatibles, including strong oxidizers.

Do not store near foodstuffs.

Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area.

Do not cut, drill, grind or weld on empty containers since they may contain explosive residues.

Harmful concentrations of hydrogen sulfide (H2S) gas can accumulate in excavations and low-lying areas as well as the vapor space of storage and bulk transport compartments. Stay upwind and vent open hatches before unloading.

WORK/HYGIENIC PRACTICES

Emergency eye wash capability should be available in the vicinity of any potential splash exposure.

Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure.

Wash hands before eating, drinking, smoking, or using toilet facilities. Do not eat, drink or smoke in areas of use or storage.

Do not use gasoline or solvents (naphtha, kerosene, etc) for washing this product from exposed skin areas. Waterless hand cleansers are effective.

Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

Avoid skin contact. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

Incompatibilities

Keep away from strong oxidizers and heat sources.

8 Exposure controls/personal protection

Component Exposure Limits

No exposure limits established for ingredients

Personal Protective Equipment: Respiratory

A NIOSH/ MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

For hydrogen sulfide hazard (above H2S permissible exposure limits): SCBA or a supplied air respirator must be used.

Refer to CSA Standard “Selection, Use and Care of Respirators” (Z94.4-02) and NIOSH Respirator Decision Logic for additional guidance on respiratory protection.

Personal Protective Equipment: Hands

Chemically resistant gloves constructed of nitrile or neoprene are recommended.

Personal Protective Equipment: Eyes

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

Personal Protective Equipment: Skin and Body

Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.

Hygiene Measures

Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use gasoline or solvents (naphtha, kerosene, etc.) for washing this product from exposed skin areas. Waterless hand cleaners are effective.
Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

EXPOSURE LIMITS

Ingredient Name	CAS #	Exposure Limit
Benzene	71-43-2	ACGIH TWA= 0.5 ppm (skin) ACGIH TLV-STEL= 2.5 ppm
Toluene	108-88-3	ACGIH TWA= 50 ppm (skin)
Ethylbenzene	100-41-4	ACGIH TWA= 100 ppm ACGIH STEL = 125 ppm
Xylene, mixed isomers	1330-20-7	ACGIH TWA= 100 ppm
Hydrogen Sulphide	7783-06-4	ACGIH TWA= 5 ppm ACGIH STEL= 10 ppm

ENGINEERING CONTROLS

Use adequate explosion-proof ventilation to keep vapor and mist concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use explosion-proof equipment and lighting in classified/controlled areas.

9 Physical and chemical properties

Appearance:	Dark yellow to brown or greenish black liquid	**Odor:**	Characteristic heavy hydrocarbon odor
Physical State:	Viscous Liquid	**pH:**	ND
Vapor Pressure:	Varies	**Vapor Density:**	3 to 5
Boiling Point:	-128 °F to > 1000°F (-89 °C - >538 °C)	**Melting Point:**	-40 °F (-40 °C)
Solubility (H2O):	Insoluble to slightly soluble	**Specific Gravity:**	0.86 to 0.95
Evaporation Rate:	ND	**VOC:**	10 %
Octanol/H2O Coeff.:	ND	**Flash Point:**	-4 °F to 2012 °F (-20 °C - 1100 °C) Flash point are in the flammable range but are highly dependent on crude oil source.
Flash Point Method:	TCC	**Upper Flammability Limit (UFL):**	6.0 %
Lower Flammability Limit (LFL):	1.1 %	**Burning Rate:**	ND
Auto Ignition: 590 °F (310 °C)			

10 Stability and reactivity

Chemical Stability

This is a stable material under normal conditions of use and at normal temperatures and pressures.

Hazardous Reaction Potential

Hazardous Polymerization will not occur.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.

Incompatible Products

Keep away from strong oxidizers.

Hazardous Decomposition Products

Thermal decomposition is highly dependent on conditions.
Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke), sulfur oxides, aldehydes and other decomposition products.

Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.

11 Toxicological information

Ingredient	CAS No	LD50 LC50
Crude Oil	8002-05-9	Rat oral >5000mg/kg Dermal Toxicity > 2000 mg/kg
Toluene	108-88-3	Rat oral 5000 mg/kg 400 ppm/4hr
Ethyl benzene	100-41-4	Rat oral 3500 mg/kg Rabbit skin 17,800 mg/kg
Xylene, mixed isomers	1330-20-7	Mouse oral 1590 mg/kg Rat inhalation: 6,350 ppm/4 hr
Benzene	71-43-2	Rat oral 3306 mg/kg Rat inhalation 10,000 ppm/7 hr
Hydrogen Sulfide	7783-06-4	Rat inhalation 380 mg/ cu m > 960 min

CHRONIC EFFECTS/CARCINOGENICITY
Product contains benzene. Human health studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood forming system (particularly bone marrow), and serious blood disorders, such as leukemia. Benzene is listed by the National Toxicology Program (NTP), International Agency for Research on Cancer (IARC), and ACGIH as carcinogenic in humans.

Acute Toxicity

A: General Product Information

Potential short-term effects of exposure are: irritation eyes, skin, nose, mucous membrane, and respiratory system.

Repeated or prolonged skin exposure to petroleum oils may cause various skin disorders, such as contact or eczematous dermatitis, folliculitis, oil acne, lipid granuloma, melanosis, and rarely precancerous warts on the forearms, backs of hands or scrotum. Contains Benzene and Toluene, which are readily absorbed through intact skin and have Skin Notations by ACGIH.

B: Component Analysis - LD50/LC50

High Sulfur Diesel Oil (68476-34-6)
Inhalation LD50/4 hr >4.1 mg/l, 4 hours (Rat)

Oral (n-Hexane) LD50 Rat >28710 mg/kg (Rat)

Potential Health Effects: Skin Contact Property

Skin irritation.

Potential Health Effects: Eye Contact Properties

Eye irritation.

Potential Health Effects: Ingestion

Ingestion may cause irritation and malaise. Swallowing or vomiting of the liquid may result in aspiration into the lungs.

Potential Health Effects: Inhalation

Inhalation of vapors may cause drowsiness and dizziness.

Carcinogenicity
A: General Product Information

Product contains polynuclear aromatic hydrocarbons (PAHs). Animal studies have shown that prolonged and/or repeated exposure to certain PAHs may cause cancer of the skin, lung and other organs. This product has not been listed as a carcinogen by NTP or OSHA.

Reproductive toxicity:
This product is not reported to have any reproductive toxicity effects.

Mutagenicity: Some crude oils and crude oil fractions have been positive in mutagenic assay tests.

Teratogenicity The components of this product are not reported to cause teratogenic effects in humans. Based on best current information, there is no known teratogenicity associated with this product.

Specific Target Organ Toxicity - Single Exposure: No data available.
Specific Target Organ Toxicity - Repeated Exposure: No data available.

Neurological effects: Chronic exposure to high concentrations of various hydrocarbon blends may lead to polyneuropathy (peripheral nerve damage), characterized by progressive weakness and numbness in the extremities, loss of deep tendon reflexes and reduction of motor nerve conduction velocity. Numerous cases of polyneuritis have been reported following prolonged exposures to a petroleum fraction containing various isomers of heptane as major ingredients. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage.

12 Ecological information

Ecotoxicity:
Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Coating action of oil can kill birds, plankton, algae and fish. Keep out of all bodies of water and sewage drainage systems.

Aquatic Acute: Expected to be harmful: LL/EL/IL50 1-10 mg/l (to aquatic organisms) LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract.

Fish : Expected to be harmful: LL/EL/IL50 1-10 mg/l
Aquatic crustacea : Expected to be harmful: LL/EL/IL50 1-10 mg/l
Algae/aquatic plants : Expected to be harmful: LL/EL/IL50 1-10 mg/l
Microorganisms : Data not available

Aquatic Chronic toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Fish : NOEC/NOEL expected to be > 1.0 - <= 10 mg/l
Aquatic crustacea : NOEC/NOEL expected to be > 1.0 - <= 10 mg/l 12.2

Persistence and Degradability: Major constituents are inherently biodegradable, but contains components that may persist in the environment

Bioaccumulative Potential: Contains constituents with the potential to bioaccumulate.

Mobility in Soil: If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater. Contains volatile constituents. Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. Floats on water and forms a slick.

Other adverse effects: No information available.

Additional ecological information:
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

Waste Disposal Instructions
Cleanup Considerations: This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 261). However, when discarded or disposed of, it may meet the criteria of an "characteristic" hazardous waste. This product could also contain benzene at >0.5 ppm and could exhibit the characteristics of "toxicity" as determined by the toxicity characteristic leaching procedure (TCLP). This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s).
It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Empty container: scrap metal recycling or re-conditioning
Soiled container: (treatment like product itself)

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local, state, and federal regulations.
Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.
Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

Disposal Regulatory Requirements:

Refer to latest EPA or state regulations regarding proper disposal.

Container Cleaning and Disposal: “Empty” Container Warning:

"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

14 Transport information

DOT Information:

Shipping Name: PETROLEUM CRUDE OIL, FLAMMABLE , TOXIC
UN #: 3494
Hazard Class: 3 - Packing - I
Placard:

Canadian (TDG)
Shipping Description: Shipping description only valid if vapor pressure is <= 300 kPa (43.5 psia) at 50° C (122 °F). If not, Call 1 800 424 9300for assistance.
14.1 UN number: UN3494
14.2 UN proper shipping name: Petroleum crude oil
14.3 Transport hazard class(es): 3
14.4 Packing group: I Petroleum crude oil
Flammable liquids
14.5 Environmental hazards: Yes
Note: Packing group is dependent on boiling point (BP) of the material: I if BP <=35° C; II if BP > 35° C

Land transport (ADR/RID):
ADR
14.1 UN number: UN3494
14.2 UN proper shipping name: Petroleum crude oil
14.3 Transport hazard class(es): 3
14.4 Packing group: I Petroleum crude oil

Flammable liquids
14.5 Environmental hazards: Yes

RID
14.1 UN number: UN3494
14.2 UN proper shipping name: Petroleum crude oil
14.3 Transport hazard class(es): 3
14.4 Packing group: I Petroleum crude oil
Flammable liquids
14.5 Environmental hazards: Yes

Sea transport (IMDG Code):
14.1 UN number: UN3494
14.2 UN proper shipping name: Petroleum crude oil
14.3 Transport hazard class(es): 3
14.4 Packing group: I or Petroleum crude oil
Flammable liquids
14.5 Environmental hazards: Yes
14.5 Environmental hazards: Yes. Marine Pollutant

Air transport (IATA):
14.1 UN number: U3494
14.2 UN proper shipping name: Petroleum crude oil
14.3 Transport hazard class(es): 3

Transport Information: This material when transported via US commerce would be regulated by DOT Regulations.

15 Regulatory information

US federal regulations:

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard: This product has been evaluated and determined to be hazardous as defined in OSHA's Hazard Communication Standard.

EPA Superfund Amendment & Reauthorization Act (SARA):
SARA Section 302: This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Petroleum Crude Oil NA
Normal Hexane NA
Toluene NA
Xylene NA
Sulfur Compounds NA
Benzene NA
Hydrogen Sulfide hydrogen sulfide

SARA Section 304: This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Petroleum Crude Oil NA
Normal Hexane = 2270 kg final RQ= 5000 lb final RQ
Toluene = 0.454 kg final RQ = 1 lb final RQ
= 10 lb final RQ
= 100 lb final RQ
= 1000 lb final RQ
= 4.54 kg final RQ
= 45.4 kg final RQ
= 454 kg final RQ
Xylene = 100 lb final RQ = 45.4 kg final RQ
Sulfur Compounds NA
Benzene = 0.454 kg final RQ = 0.454 kg statutory RQ
= 1 lb final RQ
= 1 lb statutory RQ
= 10 lb final RQ
= 10 lb final RQ receives an adjustable RQ of 10 lbs based on potential carcinogenicity in August 14, 1989 final rule
= 100 lb final RQ
= 4.54 kg final RQ
= 4.54 kg final RQ receives an adjustable RQ of 10 lbs based on potential carcinogenicity in August 14, 1989 final rule
= 45.4 kg final RQ
Hydrogen Sulfide = 100 lb final RQ = 45.4 kg final RQ

SARA Section 311/312: The following EPA hazard categories apply to this product:
Acute Health Hazard

Name CERCLA/SARA 313 Emission reporting:
Petroleum Crude Oil = 100 lb Reporting Threshold Chemical Category N590, PBT Chemicals
Normal Hexane = 1.0 %concentration
Toluene = 1.0 %concentration
Xylene = 1.0 %concentration
Sulfur Compounds None
Benzene = 0.1 %concentration
Hydrogen Sulfide None

Canadian Regulatory Information:
Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or the Non Domestic Substance List (NDSL).

Name Canada - WHMIS: Classifications of Substances: Canada - WHMIS: Ingredient Disclosure:
Petroleum Crude Oil B2
Normal Hexane B2; D2B 1% (English Item 827, French Item 964)
1% (English Item 828, French Item 965)
Toluene B2; D2A 1% (English Item 1578, French Item 1622)
Xylene B2; D2A; D2B
Benzene B2; D2A 0.1% (English Item 153, French Item 277)
Hydrogen Sulfide A; B1; D1A; D2B 1% (English Item 851, French Item 1550)

16 Other information

Additional Information: The pronounced and easily-recognized rotten egg odor of hydrogen sulfide gas (H2S) can be detected at concentrations as low as 0.003-0.13 ppm. Since higher H2S concentrations (100-200 ppm) cause olfactory fatigue and other hydrocarbon odors can "mask" H2S, the sense of smell cannot be used as a reliable indicator of H2S exposure.

49CFR Table List of Hazardous Materials
UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2.

Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

DISCLAIMER OF LIABILITY: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

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