

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Identifier: Diluted Bitumen
Synonyms: DilBit; Sales Oil
Restrictions on Use: Product Use: Refinery Feedstock
Not Available
Supplier: Connacher Oil and Gas Limited
Suite 1040, 640 – 5th Avenue SW
Calgary, Alberta T2P 3G4

EMERGENCY TELEPHONE: 24 Hour Emergency Number – 403-540-4046
Back Up Emergency Number – 1-877-744-4030
Canutec: 613-996-6666 or *666 Cellular

Date of Preparation: August 8, 2016

2. HAZARD(S) IDENTIFICATION

GHS Information

Classification: Flammable Liquids, Category 2
Acute Toxicity - Inhalation, Category 2
*Skin Irritation, Category 2
Germ Cell Mutagenicity, Category 1B
Carcinogenicity, Category 1A
Toxic to Reproduction, Category 2
Specific Target Organ Toxicity (Single Exposure), Category 3 - Narcotic Effects
Specific Target Organ Toxicity (Repeated Exposure), Category 2
Aspiration Hazard, Category 1

*Classification is due to the potential for Hydrogen sulphide accumulation

Label Elements

Hazard

WHMIS Classification / Symbol



Signal Word: Danger
Hazard Highly flammable liquid and vapor
Fatal if inhaled
Causes skin irritation



SAFETY DATA SHEET

May cause genetic defects
May cause cancer
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways

Precautionary Statements:

Prevention: Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Keep away from heat, sparks, open flames, and hot surfaces. – No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools
Take precautionary measures against static discharge
Do not breathe mist, vapours, or spray
Wash thoroughly after handling
Use only outdoors or in a well-ventilated area
Wear protective gloves, protective clothing and eye protection
Wear respiratory protection

Response: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If inhaled: Remove person to fresh air and keep comfortable for breathing
Immediately call a poison center or doctor
Do NOT induce vomiting
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse
In case of fire: Use dry chemical, CO₂, water spray or regular foam to extinguish

Storage: Store in a well-ventilated place. Keep container tightly closed
Keep cool
Store locked up

Disposal: Dispose of contents/container in accordance with applicable regional, national and local laws and regulations

Hazards Not Otherwise Classified: Not Applicable

Ingredients with Unknown Toxicity: None

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200)

This material is considered hazardous by the Hazardous Products Regulations, 2015.

SAFETY DATA SHEET

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	Common Name / Synonyms	CAS No.	% wt./wt.
Petroleum	Not available	8002-05-9	100
Sulfur	Sulphur	7704-34-9	3 – 7
Hexane	Not available	110-54-3	1 – 5
Pentane	Not available	109-66-0	1 – 5
Butane, 2-methyl-	Isopentane	78-78-4	1 - 5
Benzene	Not available	71-43-2	0.1 - 1
Benzene, methyl-	Toluene	108-88-3	0.1 1
Benzene, ethyl-	Ethylbenzene	100-41-4	0.1 1
Benzene, dimethyl-	Xylene	1330-20-7	0.1 1
Hydrogen sulfide (H ₂ S)	Hydrogen sulphide	7783-06-4	< 0.01
Polycyclic Aromatic Hydrocarbons	Not available	130498-29-2	variable

4. FIRST AID MEASURES

Inhalation

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. If breathing or the heart stops, trained personnel should immediately begin artificial respiration (AR) or cardiopulmonary resuscitation (CPR) respectively. Get medical attention immediately.

Acute and delayed symptoms and effects: Fatal if inhaled. May cause drowsiness or dizziness. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness. Inhalation of Toluene may result in peculiar skin sensations (e. g. pins and needles) or numbness. This product contains small amounts of Hydrogen sulphide which may accumulate in confined spaces. Inhalation of Hydrogen sulphide may cause loss of sense of smell, major irritation of the respiratory tract, headache, nausea, vomiting, dizziness, and fluid buildup in the lungs (pulmonary edema), which can be fatal. At 300 ppm unconsciousness may occur after 20 minutes. From 300 to 500 ppm, death can occur within 1 to 4 hours of continuous exposure. At 500 ppm the respiratory system is paralyzed, the victim collapses almost instantaneously, and death can occur after exposure of only 30 to 60 minutes. Above 500 ppm Hydrogen sulphide may cause immediate loss of consciousness; death is rapid, and possibly immediate.

Skin Contact

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Acute and delayed symptoms and effects: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Eye Contact

If in eyes: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center or doctor if you feel unwell.

SAFETY DATA SHEET

Acute and delayed symptoms and effects: May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Hydrogen sulphide may cause eye irritation at 1-20 ppm and acute conjunctivitis at higher concentrations. Above 50 ppm H₂S, eye irritation may include symptoms of redness, severe swelling, tearing, sensitivity to light and the appearance of 'Halos' around lights.

Ingestion

If swallowed: Do NOT induce vomiting. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person. If breathing or the heart stops, trained personnel should immediately begin artificial respiration (AR) or cardiopulmonary resuscitation (CPR) respectively. Get medical attention immediately.

Acute and delayed symptoms and effects: May be fatal if swallowed and enters airways. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

General Advice:

In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Note to Physicians

Symptoms may not appear immediately. For inhalation of Hydrogen Sulphide, consider oxygen.

5. FIRE-FIGHTING MEASURES

FLAMMABILITY AND EXPLOSION INFORMATION

Highly flammable liquid and vapor. Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Many liquids are lighter than water. When heated, this material may evolve toxic and flammable Hydrogen sulphide.

If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Fire involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge: Take precautionary measures against static discharge. This material is sensitive to static discharge.

SAFETY DATA SHEET

Means of Extinction

Suitable Extinguishing Media:

Small Fire: Dry chemical, CO₂, water spray or regular foam

Large Fire: Water spray, fog or regular foam. Move containers from fire area if you can do it without risk.

Unsuitable Extinguishing Media:

Do not use straight streams. CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Products of Combustion:

Oxides of carbon. Oxides of sulphur. Aldehydes.

Protection of Firefighters:

Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control or dilution water may cause pollution. Hydrogen sulphide is heavier than air and may collect in low lying areas and confined spaces. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

6. ACCIDENTAL RELEASES MEASURES

Emergency Procedures:

As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded.

Personal Precautions:

Do not touch or walk through spilled material. Use personal protection recommended in Section 8. Don full-face, positive pressure, self-contained breathing apparatus.

Environmental Precautions:

Prevent entry into waterways, sewers, basements or confined areas.

Methods for Containment:

Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors.

Methods for Clean-Up:

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

Other Information:

See Section 13 for disposal considerations.

SAFETY DATA SHEET

7. HANDLING AND STORAGE

Handling:

Do not swallow. Do not breathe mist, vapours, or spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, and hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Harmful concentrations of hydrogen sulfide (H₂S) gas can accumulate in excavations and low-lying areas as well as the vapour space of storage and bulk transport compartments. See Section 8 for information on Personal Protective Equipment.

Storage:

Limit quantity of material in storage. Restrict access to storage area. Post appropriate warning signs. Keep storage area separate from populated work areas. Consider leak detection and alarm systems, as required. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children. Head spaces in storage containers may contain toxic Hydrogen sulphide gas. Structural materials and lighting and ventilation systems should be corrosion resistant.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component

Petroleum [CAS No. 8002-05-9]

ACGIH: No TLV established.

OSHA: 500 ppm (TWA), 2000 mg/m³ (TWA);
400 ppm (TWA) [Vacated];

Sulphur [CAS No. 7704-34-9]

ACGIH: 10 mg/m³ (TWA) (Inhalable.); 3 mg/m³ (TWA) (Respirable.); For Particles (Insoluble or Poorly Soluble) Not Otherwise Specified

OSHA: 15 mg/m³ (Total dust) (TWA), 5 mg/m³ (Respirable fraction) (TWA); For Particulates Not Otherwise Regulated (PNOR).

Hexane [CAS No. 110-54-3]

ACGIH: 50 ppm (TWA); Skin, BEI (1996)

OSHA: 500 ppm (TWA), 1800 mg/m³ (TWA); Skin.
50 ppm (TWA) [Vacated];

Pentane [CAS No. 109-66-0]

ACGIH: 1000 ppm (TWA); (2013)

OSHA: 1000 ppm (TWA), 2950 mg/m³ (TWA);
600 ppm (TWA); 750 ppm (STEL) [Vacated];

Isopentane [CAS No. 78-78-4]

SAFETY DATA SHEET

ACGIH: 1000 ppm (TWA); (2013)

OSHA: No PEL established.

Benzene [CAS No. 71-43-2]

ACGIH: 0.5 ppm (TWA); 2.5 ppm (STEL); Skin; A1; BEI (1996)

OSHA: 1 ppm (TWA); 5 ppm (STEL);

Toluene [CAS No. 108-88-3]

ACGIH: 20 ppm (TWA); A4; BEI (2006)

OSHA: 200 ppm (TWA); 300 ppm (C); 500 ppm (Peak) (Maximum duration: 10 minutes.)

100 ppm (TWA); 150 ppm (STEL) [Vacated];

Ethylbenzene [CAS No. 100-41-4]

ACGIH: 20 ppm (TWA); A3; BEI (2010)

OSHA: 100 ppm (TWA), 435 mg/m³ (TWA);

125 ppm (STEL) [Vacated];

Xylene [CAS No. 1330-20-7]

ACGIH: 100 ppm (TWA); 150 ppm (STEL); A4; BEI (1992)

OSHA: 100 ppm (TWA), 435 mg/m³ (TWA);

150 ppm (STEL) [Vacated];

Hydrogen sulphide [CAS No. 7783-06-4]

ACGIH: 1 ppm (TWA); 5 ppm (STEL); (2009);

OSHA: 20 ppm (C); 50 ppm (Peak) (Maximum duration: 10 mins. once only if no other meas. exp. occurs.)

10 ppm (TWA); 15 ppm (STEL) [Vacated];

Polycyclic Aromatic Hydrocarbons [CAS No. 130498-29-2]

ACGIH: A2; BEI; Exposure by all routes should be carefully controlled to levels as low as possible (1990); For Benz[a]anthracene

OSHA: 0.2 mg/m³ (TWA); For benzene-soluble fraction.

PEL: Permissible Exposure

Limit **TLV:** Threshold Limit

Value **TWA:** Time-Weighted

Average

STEL: Short-Term Exposure Limit

C: Ceiling

Engineering Controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc). below recommended exposure limits. Use explosion-proof electrical, ventilating and lighting equipment.

Personal Protective Equipment (PPE)



Eye/Face Protection:

Wear Safety glasses. Use equipment for eye protection that

SAFETY DATA SHEET

meets the standards referenced by CSA Standard CAN/CSA-Z94.3-92 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.

- Hand Protection:** Wear protective gloves. Consult manufacturer specifications for further information.
- Skin and Body Protection:** Wear protective clothing. Flame resistant clothing that meets the NFPA 2112 and CAN/CGSB 155.20 standards is recommended in areas where material is stored or handled.
- Respiratory Protection:** Wear respiratory protection. If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4-11, with organic vapor cartridge, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.
- General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brown liquid
Colour:	Brown
Odour:	Hydrocarbon
Odour Threshold:	Not available
Physical State:	Liquid
pH:	Not available
Melting Point / Freezing Point:	Not available
Initial Boiling Point:	> 46 °C (114.8 °F) (ASTM D86)
Boiling Range:	Not available
Flash Point:	-8.5 °C (16.7 °F) (ASTM D7236/3828B)
Evaporation Rate:	Not available
Flammability (solid, gas):	Not applicable
Lower Flammability Limit:	Not available

SAFETY DATA SHEET

Upper Flammability Limit:	Not available.
Vapor Pressure:	28.7 kPa at 37.8 °C (100 °F) (ASTM D323A)
Vapor Density:	Not available
Relative Density:	0.9721 (Water = 1) at 15 °C (59 °F) (ASTM D5002)
Solubilities:	Insoluble in water
Partition Coefficient: n-Octanol/Water:	Not available
Auto-ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
Percent Volatile, wt. %:	Not available
VOC content, wt. %:	Not available
Density:	971.2 kg/m ³ at 15 °C (59 °F) (ASTM D5002)
Coefficient of Water/Oil Distribution:	Not available

10. STABILITY AND REACTIVITY

Reactivity:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Chemical Stability:	Stable under normal storage conditions.
Possibility of Hazardous Reactions:	None known.
Conditions to Avoid:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Incompatible Materials:	Strong acids. Strong oxidizers. Halogens.
Hazardous Decomposition Products:	None known.

SAFETY DATA SHEET

11. TOXICOLOGICAL INFORMATION

Effects of Acute Exposure

Product Toxicity

Oral: Not available

Dermal: Not available

Inhalation: Not available

Component Toxicity

Component	CAS No.	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀
Petroleum	8002-05-9	4300 mg/kg (rat)	Not available.	Not available.
Sulphur	7704-34-9	> 8437 mg/kg (rat)	Not available.	Not available.
Hexane	110-54-3	25000 mg/kg (rat)	Not available.	48000 ppm (rat); 4H
Pentane	109-66-0	400 mg/kg (rat)	Not available.	364000 mg/m ³ (rat); 4H
Isopentane	78-78-4	Not available.	Not available.	Not available.
Benzene	71-43-2	930 mg/kg (rat)	> 9400 µL/kg (rabbit)	10000 ppm (rat); 7H
Toluene	108-88-3	2600 mg/kg (rat)	14.1 mL/kg (rabbit)	49000 mg/m ³ (rat); 4H
Ethylbenzene	100-41-4	3500 mg/kg (rat)	17800 µL/kg (rabbit)	Not available.
Xylene	1330-20-7	4300 mg/kg (rat)	> 1700 mg/kg (rabbit)	5000 ppm (rat); 4H
Hydrogen sulphide	7783-06-4	Not available.	Not available.	444 ppm (rat); 4H
Polycyclic Aromatic Hydrocarbons	130498-29-2	Not available.	Not available.	Not available.

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion. Skin absorption.

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Blood. Cardiovascular system. Bone marrow. Liver. Kidneys.

Symptoms (including delayed and immediate effects)

Inhalation: Fatal if inhaled. May cause drowsiness or dizziness. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness. Inhalation of Toluene may result in peculiar skin sensations (e. g. pins and needles) or numbness. This product contains small amounts of Hydrogen sulphide which may accumulate in confined spaces. Inhalation of Hydrogen sulphide may cause loss of sense of smell, major irritation of the respiratory tract, headache, nausea, vomiting, dizziness, and fluid buildup in the lungs (pulmonary edema), which can be fatal. At 300 ppm unconsciousness may occur after 20 minutes.

SAFETY DATA SHEET

From 300 to 500 ppm, death can occur within 1 to 4 hours of continuous exposure. At 500 ppm the respiratory system is paralyzed, the victim collapses almost instantaneously, and death can occur after exposure of only 30 to 60 minutes. Above 500 ppm Hydrogen sulphide may cause immediate loss of consciousness; death is rapid, and possibly immediate.

- Eye:** May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Hydrogen sulphide may cause eye irritation at 1-20 ppm and acute conjunctivitis at higher concentrations. Above 50 ppm H₂S, eye irritation may include symptoms of redness, severe swelling, tearing, sensitivity to light and the appearance of 'Halos' around lights.
- Skin:** Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.
- Ingestion:** May be fatal if swallowed and enters airways. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
- Skin Sensitization:** Not available.

Respiratory Sensitization: Not available

Medical Conditions

Aggravated by Exposure: Not available

Effects of Chronic Exposure (from short and long-term exposure)

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Blood. Cardiovascular system. Bone marrow. Liver. Kidneys. Reproductive system. Central nervous system.

Chronic Effects: Hazardous by OSHA/WHMIS criteria. May cause chronic effects. Prolonged or repeated contact may dry skin and cause irritation. High vapour concentrations, generally greater than 10% by volume, may sensitize the heart and lead to lethal cardiac arrhythmias. Repeated dermal application of crude oils in rats produced systemic toxicity in blood, liver, thymus and bone marrow. Eyes. Skin. Gastrointestinal tract. Respiratory system. Chronic inhalation of n-Hexane may cause peripheral nerve disorders and central nervous system effects. Prolonged or repeated inhalation of isopentane may cause dizziness, weakness, weight loss, anemia, nervousness, pains in the limbs and peripheral numbness. Reports of chronic poisoning with Benzene, Toluene, Ethylbenzene or Xylene describe anemia, decreased blood cell count and bone marrow hypoplasia. Liver and kidney damage may occur. Repeated exposure of the eyes to high concentrations of Xylenes vapour may cause reversible eye damage. Chronic inhalation exposure to xylene causes mid-frequency hearing loss in laboratory animals. Xylene reacts

SAFETY DATA SHEET

synergistically with n-hexane to enhance hearing loss. Immunodepressive effects have also been reported for Benzene. Hydrogen sulphide may reduce lung function; cause neurological effects such as headaches, nausea, depression and personality changes; eye and mucous membrane irritation: damage to cardiovascular system. This product contains Polycyclic Aromatic Hydrocarbons. Prolonged contact with these compounds has been associated with the induction of skin and lung tumours, anemia, disorders of the liver, bone marrow and lymphoid tissues.

Carcinogenicity: May cause cancer. Lifetime skin painting studies in animals with whole crude oils and crude oil fractions have produced tumours in animals following prolonged and repeated skin contact. Chronic exposure to benzene has been associated with an increased incidence of leukemia and multiple myeloma (tumour composed of cells of the type normally found in the bone marrow).

Component Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Prop 65
Petroleum	Not listed.	Group 3	Not listed.	OSHA Carcinogen.	Not listed.
Benzene	A1	Group 1	List 1	OSHA Carcinogen.	Listed.
Toluene	A4	Group 3	Not listed.	Not listed.	Not listed.
Ethylbenzene	A3	Group 2B	Not listed.	OSHA Carcinogen.	Listed.
Xylene	A4	Group 3	Not listed.	Not listed.	Not listed.
Polycyclic Aromatic Hydrocarbons	A2	Not listed.	List 2	OSHA Carcinogen.	Listed.

Mutagenicity: May cause genetic defects

Reproductive Effects: Suspected of damaging fertility or the unborn child. Studies exist which report a link to crude oil and reproductive effects including menstrual disorders.

Developmental Effects Teratogenicity: Not available.

Embryotoxicity: Possible risk of harm to the unborn. Repeated dermal application of crude oils to pregnant rats produced maternal toxicity and fetal developmental toxicity and fetal tumours. Benzene and Xylene have caused adverse fetal effects in laboratory animals. Exposure to Toluene may affect the developing fetus.

Toxicologically Synergistic Materials: Xylene reacts synergistically with n-hexane to enhance hearing loss.

SAFETY DATA SHEET

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Petroleum: 21 and 41 mg/l, 96 hr., Rainbow trout; Petroleum: 2.7 and 4.1 mg/l, 96 hr., Mysid; Petroleum: 122 and 528 ml/kg, 96 hr., Algae
Persistence / Degradability:	Not available.
Bioaccumulation / Accumulation:	Not available.
Mobility in Environment:	Not available.
Other Adverse Effects:	Not available

13. DISPOSAL CONSIDERATIONS

Disposal Instructions:	Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.
-------------------------------	---

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

Proper Shipping Name:	UN3494, PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC
Class:	3
UN Number:	UN3494
Packing Group:	I
Label Code:	



Danger, Possible Hydrogen Sulfide Inhalation Hazard

Canada Transportation of Dangerous Goods (TDG)

Proper Shipping Name:	PETROLEUM CRUDE OIL, Toxic – Inhalation Hazard
Class:	3 (6.1)
Packing Group:	I
Label Code:	





SAFETY DATA SHEET

Based on the results of product sampling and laboratory analysis of flash point by ASTM D93 (closed cup) and boiling point by ASTM D86, the crude oil has been determined to be classified as Packing Group I.

15. REGULATORY INFORMATION

Chemical Inventories

US (TSCA)

The components of this product are in compliance with the chemical notification requirements of TSCA.

Canada (DSL)

The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

Federal Regulations

United States

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III

Component	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313	RCRA CODE	CAA 112(r) TQ (lbs.)
Hexane	Not listed.	Not listed.	5000	313	Not listed.	Not listed.
Pentane	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.	10000
Isopentane	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.	10000
Benzene	Not listed.	Not listed.	10	313	U019	Not listed.
Toluene	Not listed.	Not listed.	1000	313	U220	Not listed.
Ethylbenzene	Not listed.	Not listed.	1000	313	Not listed.	Not listed.
Xylene	Not listed.	Not listed.	100	313	U239	Not listed.
Hydrogen sulphide	500	100	100	313	U135	10000
Polycyclic Aromatic Hydrocarbons	Not listed.	Not listed.	Not listed.	313	Not listed.	Not listed.

US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Component	CAS No.	RTK List
Petroleum	8002-05-9	Listed.
Sulphur	7704-34-9	Listed.
Hexane	110-54-3	Listed.
Pentane	109-66-0	Listed.
Isopentane	78-78-4	Listed.
Benzene	71-43-2	E
Toluene	108-88-3	Listed.
Ethylbenzene	100-41-4	Listed.
Xylene	1330-20-7	Listed.
Hydrogen sulphide	7783-06-4	E



SAFETY DATA SHEET

Polycyclic Aromatic Hydrocarbons

130498-29-2

Listed.

Note: E = Extraordinarily Hazardous Substance

New Jersey

US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Component	CAS No.	RTK List
Petroleum	8002-05-9	SHHS
Sulphur	7704-34-9	Listed.
Hexane	110-54-3	SHHS
Pentane	109-66-0	SHHS
Isopentane	78-78-4	SHHS
Benzene	71-43-2	SHHS
Toluene	108-88-3	SHHS
Ethylbenzene	100-41-4	SHHS
Xylene	1330-20-7	SHHS
Hydrogen sulphide	7783-06-4	SHHS

Pennsylvania

US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Component	CAS No.	RTK List
Petroleum	8002-05-9	Listed.
Sulphur	7704-34-9	Listed.
Hexane	110-54-3	Listed.
Pentane	109-66-0	Listed.
Isopentane	78-78-4	Listed.
Benzene	71-43-2	ES
Toluene	108-88-3	E
Ethylbenzene	100-41-4	E
Xylene	1330-20-7	E
Hydrogen sulphide	7783-06-4	E
Polycyclic Aromatic Hydrocarbons	130498-29-2	Listed.

Note: E = Environmental Hazard; S = Special Hazardous Substance

California

California Prop 65: WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Component	Type of Toxicity
Benzene	cancer, developmental, male
Toluene	developmental
Ethylbenzene	cancer
Polycyclic Aromatic Hydrocarbons	cancer

SAFETY DATA SHEET

16. OTHER INFORMATION

Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for own particular use.

Date of Preparation of SDS:	August 8, 2016
Version:	2.6
GHS SDS Internally Prepared By:	Altex Energy Phone: (403) 508-7525