

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Date of Issue: 02/22/2023 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Natural Gas Condensate, Sour

Synonyms: Drips; Condensate; Field Condensate; Gas Well Condensate; High Pressure Inlet Liquids; Lease Condensate; Pipeline

Liquids

1.2. Intended Use of the Product

Industrial Uses

1.3. Name, Address, and Telephone of the Responsible Party

Company

Williams Inc.

One Williams Center

Tulsa, OK 74172

855-945-5762

www.williams.com

ehs@williams.com

1.4. Emergency Telephone Number

Emergency Number: VelocityEHS

(800)255-3924 (North America) +1 (813)248-0585 (International)

Security.OperationsCenter@williams.com

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Flammable liquids Category 1	H224
Skin corrosion/irritation Category 2	H315
Germ cell mutagenicity Category 1B	H340
Carcinogenicity Category 1A	H350
Reproductive toxicity Category 2	H361
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity (repeated exposure) Category 1	H372
Aspiration hazard Category 1	H304
Hazardous to the aquatic environment - Acute Hazard Category 1	H400
Hazardous to the aquatic environment - Chronic Hazard Category 1	H410

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)









Signal Word (GHS-US/CA)

Hazard Statements (GHS-US/CA)

: Danger

: H224 - Extremely flammable liquid and vapor.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H336 - May cause drowsiness or dizziness.

H340 - May cause genetic defects.

H350 - May cause cancer.

H361 - Suspected of damaging fertility or the unborn child.

H372 - Causes damage to organs (nervous system) through prolonged or repeated

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exposure (Inhalation).

H400 - Very toxic to aquatic life.

H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements (GHS-US/CA):

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical, ventilating, and lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take action to prevent static discharges.

P260 - Do not breathe vapors, mist, or spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, and eye protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P308+P313 - If exposed or concerned: Get medical advice/attention.

P321 - Specific treatment (see section 4 on this SDS).

P331 - Do NOT induce vomiting.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.

P391 - Collect spillage.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P403+P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Contains a small amount of Hydrogen Sulfide, symptoms of overexposure are headaches, dizziness, nausea, coughing, respiratory irritation, eye irritation, skin irritation, pain in the nose, and loss of consciousness. Heating of the product may release higher amounts of Hydrogen Sulfide (H₂S). Contains a small amount of hydrogen sulfide. Hydrogen sulfide is a fatal, and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Heating of this product and storage under elevated temperatures or over long periods of time may release higher amounts of hydrogen sulfide. Hydrogen sulfide is also an asphyxiant.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
n-Heptane	Heptane, n- / HEPTANE /	(CAS-No.) 142-82-5	10 – 30	Flam. Liq. 2, H225
	Normal heptane / Heptane / Heptane (n-)			Skin Irrit. 2, H315
	neptane (n-)			STOT SE 3, H336
				Asp. Tox. 1, H304

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5 / IVIOITUAY, IVIATOR 26, 2012 / Kules And	negulations And According to The	nazardous Produc	
			Aquatic Acute 1, H400
			Aquatic Chronic 1, H410
	(CAS-No.) 110-54-3	10 – 30	Flam. Liq. 2, H225
Normal hexane			Skin Irrit. 2, H315
			Repr. 2, H361
			STOT SE 3, H336
			STOT RE 2, H373
			Asp. Tox. 1, H304
			Aquatic Acute 2, H401
			Aquatic Chronic 2, H411
Pentane / Normal pentane /	(CAS-No.) 109-66-0	10 – 30	Flam. Lig. 1, H224
PENTANE / Pentane, n-	(3.35) = 55 55 5		STOT SE 3, H336
			Asp. Tox. 1, H304
			Aquatic Acute 2, H401
			Aquatic Chronic 2, H411
Butane 2-methyl- / 2-	/CAS No \ 70 70 /	F 20	Flam. Liq. 1, H224
• •	(CA3-NO.) 76-76-4	3 – 20	1
/ Methylbutane / isopentane			STOT SE 3, H336
			Asp. Tox. 1, H304
			Aquatic Acute 2, H401
D. Land / DUTANE	(2.2	ļ	Aquatic Chronic 2, H411
Butane / BUTANE	(CAS-No.) 106-97-8	1-10	Flam. Gas 1, H220
			Press. Gas (Liq.), H280
			Simple Asphy
	(CAS-No.) 75-28-5	0.1 – 5	Flam. Gas 1, H220
			Press. Gas (Liq.), H280
			Simple Asphy
Cyclohexatriene / Benzol	(CAS-No.) 71-43-2	0.1 - 2.5	Flam. Liq. 2, H225
			Acute Tox. 4 (Oral), H302
			Skin Irrit. 2, H315
			Eye Irrit. 2A, H319
			Muta. 1B, H340
			Carc. 1A, H350
			STOT SE 3, H336
			STOT SE 3, H335
			STOT RE 1, H372
			Asp. Tox. 1, H304
			Aquatic Acute 2, H401
			Aquatic Chronic 3, H412
Benzene, dimethyl- /	(CAS-No.) 1330-20-7	01-1	Flam. Liq. 3, H226
Dimethylbenzene (mixed	(6/15/140.) 1550/20 7	0.1	Acute Tox. 4 (Dermal), H312
isomers) / Xylene / Xylene (all			Acute Tox. 4 (Inhalation:vapor),
			H332
			Skin Irrit. 2, H315
(mixed isomers) /			STOT SE 3, H336
Dimethylbenzene / XYLENE /			
Benzene, dimethyl-, mixed			STOT SE 3, H335
			STOT RE 2, H373
			Asp. Tox. 1, H304
(mixture), including m-xylene,			Aquatic Acute 2, H401
o-xylene, p-xylene / Xylene (o-			Aquatic Chronic 3, H412
,m-,p- isomer mixture) /			
ISOTOPISI / DIMPTOVIDENZEDE		1	
(mixed 2-, 3-, 4-isomers) / C8			
	Hexane, n- / n-Hexane / Normal hexane Pentane / Normal pentane / PENTANE / Pentane, n- Butane, 2-methyl- / 2- Methylbutane / ISOPENTANE / Methylbutane / isopentane Butane / BUTANE 2-Methylpropane / Propane, 2-methyl- / ISOBUTANE / R600a / isobutane Cyclohexatriene / Benzol Cyclohexatriene / Benzol Cyclohexatriene / Xylene (all isomers) / Xylene (mixed isomers) / Xylene (mixed isomers) / Xylene (mixed isomers) / Xylene / Xylenes (mixed isomers) / Xylene, / Xylene / Xylene (mixed isomers / Xylol / Xylene, mixed isomers / Xylene / Xylene (mixture), including m-xylene, o-xylene, p-xylene / Xylene (o-,m-,p- isomer mixture) / Dimethylbenzene (2-, 3-, 4-)	Hexane, n- / n-Hexane / Normal hexane (CAS-No.) 110-54-3	Pentane / Normal pentane / PENTANE / Pentane, n- (CAS-No.) 109-66-0 10 – 30 Butane, 2-methyl- / 2-Methylbutane / ISOPENTANE / Methylbutane / Isopentane (CAS-No.) 78-78-4 5 – 20 Butane / BUTANE (CAS-No.) 106-97-8 1 – 10 2-Methylpropane / Propane, 2-methyl- / ISOBUTANE / R600a / Isobutane (CAS-No.) 75-28-5 0.1 – 5 Cyclohexatriene / Benzol (CAS-No.) 71-43-2 0.1 – 2.5 Benzene, dimethyl- / Dimethylbenzene (mixed isomers) / Xylene (mixed isomers) / Xylene (mixed isomers) / Xylene (xylene (all isomers) / Xylene (xylene (xylene (xylene)) / Dimethylbenzene / Xylenes (mixed isomers) / Sylenes (mixed isomers) / Xylene (

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	Dimethylbenzenes / Xylene isomers mixture			
Hydrogen sulfide	Hydrogen sulfide (H2S) / Hydrogen sulphide / Sulfur hydride / Dihydrogen sulphide / hydrogen sulfide / Hydrogen sulphide, hydrogen sulfide / Sulfane	(CAS-No.) 7783-06-4	≤ 0.1	Flam. Gas 1, H220 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 1, H370 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. If exposed or concerned: Get medical advice/attention.

Eye Contact: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Place affected person on their side. Immediately call a POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May cause drowsiness and dizziness. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (central nervous system) through prolonged or repeated exposure (inhalation). Causes skin irritation. May cause genetic defects. May be fatal if swallowed and enters airways. Contains a small amount of Hydrogen Sulfide, symptoms of overexposure are headaches, dizziness, nausea, coughing, respiratory irritation, eye irritation, skin irritation, pain in the nose, and loss of consciousness. Heating of the product may release higher amounts of Hydrogen Sulfide (H₂S).

Inhalation: High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms: May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (central nervous system) through prolonged or repeated exposure (Inhalation). May cause genetic defects.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water may be ineffective but water should be used to keep fire-exposed container cool.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Extremely flammable liquid and vapor.

Explosion Hazard: May form flammable or explosive vapor-air mixture. Contains Sulfur, may release small amounts of hydrogen sulfide. Hydrogen sulfide is a highly flammable, explosive gas under certain conditions, is a toxic gas, and may be fatal. Gas can accumulate in the headspace of closed containers, use caution when opening sealed containers. Heating the product or containers can cause thermal decomposition of the product and release hydrogen sulfide.

Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

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^{*} The actual concentration of ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) SOR/2015-17 and 29 CFR 1910.1200. Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

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5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur.

Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularily at elevated temperatures.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Remove ignition sources. Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Eliminate ignition sources first, then ventilate the area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Remove ignition sources. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.

Precautions for Safe Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not breathe vapors, mist, spray. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharge. Use only non-sparking tools.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Industrial Uses

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

governments.		
n-Heptane (142-82-5)		
USA ACGIH	ACGIH OEL TWA [ppm]	400 ppm (Heptane, all isomers)
USA ACGIH	ACGIH OEL STEL [ppm]	500 ppm (Heptane, all isomers)
USA OSHA	OSHA PEL (TWA) [1]	2000 mg/m³
USA OSHA	OSHA PEL (TWA) [2]	500 ppm
USA NIOSH	NIOSH REL (TWA)	350 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	85 ppm
USA NIOSH	NIOSH REL (Ceiling)	1800 mg/m³
USA NIOSH	NIOSH REL C [ppm]	440 ppm
USA IDLH	IDLH [ppm]	750 ppm
Alberta	OEL STEL	2050 mg/m ³
Alberta	OEL STEL [ppm]	500 ppm
Alberta	OEL TWA	1640 mg/m³
Alberta	OEL TWA [ppm]	400 ppm
British Columbia	OEL STEL [ppm]	500 ppm (Heptane, isomers)
British Columbia	OEL TWA [ppm]	400 ppm (Heptane, isomers)
Manitoba	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Manitoba	OEL TWA [ppm]	400 ppm (Heptane, all isomers)
New Brunswick	OEL STEL	2050 mg/m³
New Brunswick	OEL STEL [ppm]	500 ppm
New Brunswick	OEL TWA	1640 mg/m³
New Brunswick	OEL TWA [ppm]	400 ppm
Newfoundland & Labrador	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Newfoundland & Labrador	OEL TWA [ppm]	400 ppm (Heptane, all isomers)
Nova Scotia	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Nova Scotia	OEL TWA [ppm]	400 ppm (Heptane, all isomers)
Nunavut	OEL STEL [ppm]	500 ppm
Nunavut	OEL TWA [ppm]	400 ppm
Northwest Territories	OEL STEL [ppm]	500 ppm
Northwest Territories	OEL TWA [ppm]	400 ppm
Ontario	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Ontario	OEL TWA [ppm]	400 ppm
Prince Edward Island	OEL STEL [ppm]	500 ppm (Heptane, all isomers)
Prince Edward Island	OEL TWA [ppm]	400 ppm (Heptane, all isomers)
Québec	VECD (OEL STEL) [ppm]	500 ppm (Heptane (all isomers))
Québec	VEMP (OEL TWA) [ppm]	400 ppm (Heptane (all isomers))
Saskatchewan	OEL STEL [ppm]	500 ppm
Saskatchewan	OEL TWA [ppm]	400 ppm
Yukon	OEL STEL	2000 mg/m ³
Yukon	OEL STEL [ppm]	500 ppm
Yukon	OEL TWA	1600 mg/m ³
Yukon	OEL TWA [ppm]	400 ppm
Hexane (110-54-3)		
USA ACGIH	ACGIH OEL TWA [ppm]	50 ppm
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure
		by the cutaneous route

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USA ACGIH	BEI (BLV)	0.5 mg/L Parameter: 2,5-Hexanedione without hydrolysis -
1154 05114	OCUA DEL (TIMA) [4]	Medium: urine - Sampling time: end of shift
USA OSHA	OSHA PEL (TWA) [1]	1800 mg/m³
USA OSHA	OSHA PEL (TWA) [2]	500 ppm
USA NIOSH	NIOSH REL (TWA)	180 mg/m³
USA NIOSH	NIOSH REL TWA [ppm]	50 ppm
USA IDLH	IDLH [ppm]	1100 ppm (10% LEL)
Alberta	OEL TWA	176 mg/m ³
Alberta	OEL TWA [ppm]	50 ppm
British Columbia	OEL TWA [ppm]	20 ppm
Manitoba	OEL TWA [ppm]	50 ppm
New Brunswick	OEL TWA	176 mg/m ³
New Brunswick	OEL TWA [ppm]	50 ppm
Newfoundland & Labrador	OEL TWA [ppm]	50 ppm
Nova Scotia	OEL TWA [ppm]	50 ppm
Nunavut	OEL STEL [ppm]	62.5 ppm
Nunavut	OEL TWA [ppm]	50 ppm
Northwest Territories	OEL STEL [ppm]	62.5 ppm
Northwest Territories	OEL TWA [ppm]	50 ppm
Ontario	OEL TWA [ppm]	50 ppm
Prince Edward Island	OEL TWA [ppm]	50 ppm
Québec	VEMP (OEL TWA)	176 mg/m ³
Québec	VEMP (OEL TWA) [ppm]	50 ppm
Saskatchewan	OEL STEL [ppm]	62.5 ppm
Saskatchewan	OEL TWA [ppm]	50 ppm
Yukon	OEL STEL	450 mg/m³
Yukon	OEL STEL [ppm]	125 ppm
Yukon	OEL TWA	360 mg/m ³
Yukon	OEL TWA [ppm]	100 ppm
n-Pentane (109-66-0)	and the second	1 bb
USA ACGIH	ACGIH OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
USA OSHA	OSHA PEL (TWA) [1]	2950 mg/m³
USA OSHA	OSHA PEL (TWA) [2]	1000 ppm
USA NIOSH	NIOSH REL (TWA)	350 mg/m³
USA NIOSH	NIOSH REL TWA [ppm]	120 ppm
USA NIOSH	NIOSH REL (Ceiling)	1800 mg/m³
USA NIOSH	NIOSH REL C [ppm]	610 ppm
USA IDLH	IDLH [ppm]	1500 ppm (10% LEL)
Alberta	OEL TWA	1770 mg/m³
Alberta	OEL TWA [ppm]	600 ppm
British Columbia	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Manitoba	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
New Brunswick	OEL STEL	2210 mg/m³
New Brunswick	OEL STEL [ppm]	750 ppm
New Brunswick	OEL TWA	1770 mg/m³
New Brunswick	OEL TWA [ppm]	600 ppm
Newfoundland & Labrador	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Nova Scotia	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Nunavut	OEL TWA [ppm]	750 ppm (Pentane, all isomers)
Nunavut	OEL TWA [ppm]	600 ppm (Pentane, all isomers)
Northwest Territories		
Northwest Territories	OEL STEL [ppm]	750 ppm (Pentane, all isomers)

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Northwest Territories	OEL TWA [ppm]	600 ppm (Pentane, all isomers)
Ontario	OEL TWA [ppm]	1000 ppm
Prince Edward Island	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Québec	VEMP (OEL TWA) [ppm]	1000 ppm (Pentane (all isomers))
Saskatchewan	OEL STEL [ppm]	750 ppm
Saskatchewan	OEL TWA [ppm]	600 ppm
Yukon	OEL STEL	2250 mg/m³
Yukon	OEL STEL [ppm]	750 ppm
Yukon	OEL TWA	1800 mg/m³
Yukon	OEL TWA [ppm]	600 ppm
Isopentane (78-78-4)		' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
USA ACGIH	ACGIH OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Alberta	OEL TWA	1770 mg/m³ (Pentane, all isomers)
Alberta	OEL TWA [ppm]	600 ppm (Pentane, all isomers)
British Columbia	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Manitoba	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Newfoundland & Labrador	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Nova Scotia	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Nunavut	OEL STEL [ppm]	750 ppm (Pentane, all isomers)
Nunavut	OEL TWA [ppm]	600 ppm (Pentane, all isomers)
Northwest Territories	OEL STEL [ppm]	750 ppm (Pentane, all isomers)
Northwest Territories	OEL TWA [ppm]	600 ppm (Pentane, all isomers)
Ontario	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Prince Edward Island	OEL TWA [ppm]	1000 ppm (Pentane, all isomers)
Québec	VEMP (OEL TWA) [ppm]	1000 ppm (Pentane (all isomers))
Saskatchewan	OEL STEL [ppm]	750 ppm (Pentane, all isomers)
Saskatchewan	OEL TWA [ppm]	600 ppm (Pentane, all isomers)
n-Butane (106-97-8)		
USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
USA NIOSH	NIOSH REL (TWA)	1900 mg/m³
USA NIOSH	NIOSH REL TWA [ppm]	800 ppm
USA IDLH	IDLH [ppm]	1600 ppm (>10% LEL)
Alberta	OEL TWA [ppm]	1000 ppm
British Columbia	OEL STEL [ppm]	1000 ppm (Butane, all isomers)
Manitoba	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
New Brunswick	OEL TWA	1900 mg/m ³
New Brunswick	OEL TWA [ppm]	800 ppm
Newfoundland & Labrador	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
Nova Scotia	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
Nunavut	OEL STEL [ppm]	1250 ppm (Butane, all isomers)
Nunavut	OEL TWA [ppm]	1000 ppm (Butane, all isomers)
Northwest Territories	OEL STEL [ppm]	1250 ppm (Butane, all isomers)
Northwest Territories	OEL TWA [ppm]	1000 ppm (Butane, all isomers)
Ontario	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, all isomers)
Prince Edward Island	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
Québec	VEMP (OEL TWA)	1900 mg/m³
Québec	VEMP (OEL TWA) [ppm]	800 ppm
Saskatchewan	OEL STEL [ppm]	1250 ppm (Butane, all isomers)
Saskatchewan	OEL TWA [ppm]	1000 ppm (Butane, all isomers)
Yukon	OEL STEL	1600 mg/m³
Yukon	OEL STEL [ppm]	750 ppm

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Yukon	OEL TWA	1400 mg/m ³
Yukon	OEL TWA OEL TWA [ppm]	600 ppm
	OEL TWA [ppm]	600 ppm
Isobutane (75-28-5)	ACCULOSI CTSL 1	1,000
USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
USA NIOSH	NIOSH REL (TWA)	1900 mg/m³
USA NIOSH	NIOSH REL TWA [ppm]	800 ppm
British Columbia	OEL STEL [ppm]	1000 ppm (Butane, all isomers)
Manitoba	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
Newfoundland & Labrador	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
Nova Scotia	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
Nunavut	OEL STEL [ppm]	1250 ppm (Butane, all isomers)
Nunavut	OEL TWA [ppm]	1000 ppm (Butane, all isomers)
Northwest Territories	OEL STEL [ppm]	1250 ppm (Butane, all isomers)
Northwest Territories	OEL TWA [ppm]	1000 ppm (Butane, all isomers)
Ontario	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, all isomers)
Prince Edward Island	OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)
Saskatchewan	OEL STEL [ppm]	1250 ppm (Butane, all isomers)
Saskatchewan	OEL TWA [ppm]	1000 ppm (Butane, all isomers)
Benzene (71-43-2)		
USA ACGIH	ACGIH OEL TWA [ppm]	0.5 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	2.5 ppm
USA ACGIH	ACGIH chemical category	Confirmed Human Carcinogen, Skin - potential significant
	<i>-</i> ,	contribution to overall exposure by the cutaneous route
USA ACGIH	BEI (BLV)	25 μg/g Kreatinin Parameter: S-Phenylmercapturic acid -
	, ,	Medium: urine - Sampling time: end of shift (background)
		500 μg/g Kreatinin Parameter: t,t-Muconic acid - Medium:
		urine - Sampling time: end of shift (background)
USA OSHA	OSHA PEL (TWA) [2]	10 ppm
		1 ppm
USA OSHA	OSHA PEL (STEL) [2]	5 ppm (see 29 CFR 1910.1028)
USA OSHA	OSHA PEL C [ppm]	25 ppm
USA OSHA	Acceptable Maximum Peak Above The	50 ppm Peak (10 minutes)
	Acceptable Ceiling Concentration For An	
	8-Hr Shift	
USA OSHA	OSHA Action Level/Excursion Limit	0.5 ppm (Action Level, see 29 CFR 1910.1028)
USA NIOSH	NIOSH REL TWA [ppm]	0.1 ppm
USA NIOSH	NIOSH REL STEL [ppm]	1 ppm
USA IDLH	IDLH [ppm]	500 ppm
Alberta	OEL STEL	8 mg/m ³
Alberta	OEL STEL [ppm]	2.5 ppm
Alberta	OEL TWA	1.6 mg/m ³
Alberta	OEL TWA [ppm]	0.5 ppm
British Columbia	OEL STEL [ppm]	2.5 ppm
British Columbia	OEL TWA [ppm]	0.5 ppm
Manitoba	OEL STEL [ppm]	2.5 ppm
Manitoba	OEL TWA [ppm]	0.5 ppm
New Brunswick	OEL STEL	8 mg/m³
New Brunswick	OEL STEL [ppm]	2.5 ppm
New Brunswick	OEL TWA	1.6 mg/m³
New Brunswick	OEL TWA [ppm]	0.5 ppm
Newfoundland & Labrador	OEL STEL [ppm]	2.5 ppm
Newfoundland & Labrador	OEL TWA [ppm]	0.5 ppm
	•	•

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Nova Scotia	1	2.5 npm
	OEL STEL [ppm]	2.5 ppm
Nova Scotia	OEL TWA [ppm]	0.5 ppm 2.5 ppm (designated substances regulation)
Ontario	OEL STEL [ppm]	11 1
		2.5 ppm (applies to workplaces to which the designated
Ontario	OFI TWA [nnm]	substances regulation does not apply) 0.5 ppm (applies to workplaces to which the designated
Untario	OEL TWA [ppm]	substances regulation does not apply)
		0.5 ppm (designated substances regulation)
Prince Edward Island	OEL STEL [ppm]	2.5 ppm
Prince Edward Island	OEL TWA [ppm]	0.5 ppm
Québec	VECD (OEL STEL)	15.5 mg/m ³
Québec	VECD (OEL STEL) [ppm]	5 ppm
Québec	VEMP (OEL TWA)	3 mg/m ³
Québec	VEMP (OEL TWA) VEMP (OEL TWA) [ppm]	
	, , , , , , , , , , , , , , , , , , , ,	1 ppm
Yukon	OEL Colling (page)	32 mg/m³
Yukon	OEL Ceiling [ppm]	10 ppm
Xylenes (o-, m-, p- isomers)		T
USA ACGIH	ACGIH OEL TWA [ppm]	100 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	150 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA ACGIH	BEI (BLV)	1.5 g/g Kreatinin Parameter: Methylhippuric acids -
		Medium: urine - Sampling time: end of shift
USA OSHA	OSHA PEL (TWA) [1]	435 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	100 ppm
Alberta	OEL STEL	651 mg/m³
Alberta	OEL STEL [ppm]	150 ppm
Alberta	OEL TWA	434 mg/m³
Alberta	OEL TWA [ppm]	100 ppm
British Columbia	OEL STEL [ppm]	150 ppm
British Columbia	OEL TWA [ppm]	100 ppm
Manitoba	OEL STEL [ppm]	150 ppm
Manitoba	OEL TWA [ppm]	100 ppm
New Brunswick	OEL STEL	651 mg/m ³
New Brunswick	OEL STEL [ppm]	150 ppm
New Brunswick	OEL TWA	434 mg/m³
New Brunswick	OEL TWA [ppm]	100 ppm
Newfoundland & Labrador	OEL STEL [ppm]	150 ppm
Newfoundland & Labrador	OEL TWA [ppm]	100 ppm
Nova Scotia	OEL STEL [ppm]	150 ppm
Nova Scotia	OEL TWA [ppm]	100 ppm
Nunavut	OEL STEL [ppm]	150 ppm
Nunavut	OEL TWA [ppm]	100 ppm
Northwest Territories	OEL STEL [ppm]	150 ppm
Northwest Territories	OEL TWA [ppm]	100 ppm
Ontario	OEL STEL [ppm]	150 ppm
Ontario	OEL TWA [ppm]	100 ppm
Prince Edward Island	OEL STEL [ppm]	150 ppm
Prince Edward Island	OEL TWA [ppm]	100 ppm
Québec	VECD (OEL STEL)	651 mg/m³
Québec	VECD (OEL STEL) [ppm]	150 ppm
Québec	VEMP (OEL TWA)	434 mg/m³
Québec	VEMP (OEL TWA) [ppm]	100 ppm
446866	Taran (Occ. 1447) [bbin]	Too bhiii

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	İ	150 nnm	
Saskatchewan	OEL TWA [ppm]	150 ppm	
Saskatchewan Yukon	OEL TWA [ppm] OEL STEL	100 ppm 650 mg/m ³	
Yukon		150 ppm	
	OEL STEL [ppm]	• •	
Yukon	OEL TWA	435 mg/m³	
	OEL TWA [ppm]	100 ppm	
Hydrogen sulfide (7783-06-4	1	Γ.	
USA ACGIH	ACGIH OEL TWA [ppm]	1 ppm	
USA ACGIH	ACGIH OEL STEL [ppm]	5 ppm	
USA OSHA	OSHA PEL C [ppm]	20 ppm	
USA OSHA	Acceptable Maximum Peak Above The Acceptable Ceiling Concentration For An 8-Hr Shift	50 ppm Peak (10 minutes once, only if no other measurable exposure occurs)	
USA NIOSH	NIOSH REL (Ceiling)	15 mg/m³	
USA NIOSH	NIOSH REL C [ppm]	10 ppm	
USA IDLH	IDLH [ppm]	100 ppm	
Alberta	OEL C	21 mg/m³	
Alberta	OEL Ceiling [ppm]	15 ppm	
Alberta	OEL TWA	14 mg/m³	
Alberta	OEL TWA [ppm]	10 ppm	
British Columbia	OEL Ceiling [ppm]	10 ppm	
Manitoba	OEL STEL [ppm]	5 ppm	
Manitoba	OEL TWA [ppm]	1 ppm	
New Brunswick	OEL STEL	21 mg/m³	
New Brunswick	OEL STEL [ppm]	15 ppm	
New Brunswick	OEL TWA	14 mg/m³	
New Brunswick	OEL TWA [ppm]	10 ppm	
Newfoundland & Labrador	OEL STEL [ppm]	5 ppm	
Newfoundland & Labrador	OEL TWA [ppm]	1 ppm	
Nova Scotia	OEL STEL [ppm]	5 ppm	
Nova Scotia	OEL TWA [ppm]	1 ppm	
Nunavut	OEL STEL [ppm]	15 ppm	
Nunavut	OEL TWA [ppm]	10 ppm	
Northwest Territories	OEL STEL [ppm]	15 ppm	
Northwest Territories	OEL TWA [ppm]	10 ppm	
Ontario	OEL STEL [ppm]	15 ppm	
Ontario	OEL TWA [ppm]	10 ppm	
Prince Edward Island	OEL STEL [ppm]	5 ppm	
Prince Edward Island	OEL TWA [ppm]	1 ppm	
Québec	VECD (OEL STEL)	21 mg/m³	
Québec	VECD (OEL STEL) [ppm]	15 ppm	
Québec	VEMP (OEL TWA)	14 mg/m³	
Québec	VEMP (OEL TWA) [ppm]	10 ppm	
Saskatchewan	OEL STEL [ppm]	15 ppm	
Saskatchewan	OEL TWA [ppm]	10 ppm	
Yukon	OEL STEL	27 mg/m³	
Yukon	OEL STEL [ppm]	15 ppm	
Yukon	OEL TWA	15 mg/m³	
Yukon	OEL TWA [ppm]	10 ppm	
Aliphatic hydrocarbon gases: Alkanes (C1-4)			
Nunavut	OEL STEL [ppm]	1250 ppm	
		rr····	

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Nunavut	OEL TWA [ppm]	1000 ppm
Northwest Territories	OEL STEL [ppm]	1250 ppm
Northwest Territories	OEL TWA [ppm]	1000 ppm
Saskatchewan	OEL STEL [ppm]	1250 ppm
Saskatchewan	OEL TWA [ppm]	1000 ppm
Aliphatic hydrocarbon gases	, alkane (C2-4)	
Alberta	OEL TWA [ppm]	1000 ppm
Heptane isomers		
USA ACGIH	ACGIH OEL TWA [ppm]	400 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	500 ppm
Manitoba	OEL STEL [ppm]	500 ppm
Manitoba	OEL TWA [ppm]	400 ppm
Newfoundland & Labrador	OEL STEL [ppm]	500 ppm
Newfoundland & Labrador	OEL TWA [ppm]	400 ppm
Nova Scotia	OEL STEL [ppm]	500 ppm
Nova Scotia	OEL TWA [ppm]	400 ppm
Prince Edward Island	OEL STEL [ppm]	500 ppm
Prince Edward Island	OEL TWA [ppm]	400 ppm

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.









Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State : Liquid

Appearance : Colorless to Brownish Black

Odor: Petroleum-likeOdor Threshold: No data availablepH: No data availableEvaporation Rate: No data available

Melting Point : No data available

Freezing Point : No data available

No data available

Boiling Point : $-29 - 427 \,^{\circ}\text{C} \, (-20.2 - 800.6 \,^{\circ}\text{F})$

Flash Point : < 10 °C (50 °F)

Auto-ignition Temperature : No data available

Decomposition Temperature : No data available

Flammability (solid, gas) : Not applicable

Lower Flammable Limit : 1 %

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Upper Flammable Limit : 10 %

Vapor Pressure : 51 – 857 mm Hg (1 - 16.5 psi)

Relative Vapor Density at 20°C : No data available
Relative Density : 0.76 – 0.87 (water =1)
Specific Gravity : No data available

Solubility : Water: Not miscible or difficult to mix

Partition Coefficient: N-Octanol/Water : No data available Viscosity : No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

10.2. Chemical Stability:

Extremely flammable liquid and vapor. May form flammable or explosive vapor-air mixture.

10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures. Contains Sulfur, may release small amounts of hydrogen sulfide. Hydrogen sulfide is a highly flammable, explosive gas under certain conditions, is a toxic gas, and may be fatal. Gas can accumulate in the headspace of closed containers, use caution when opening sealed containers. Heating the product or containers can cause thermal decomposition of the product and release hydrogen sulfide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

No additional information available

Skin Corrosion/Irritation: Causes skin irritation.

Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified **Germ Cell Mutagenicity:** May cause genetic defects.

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (nervous system) through prolonged or repeated exposure (Inhalation).

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): May cause drowsiness or dizziness.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation: High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury. **Chronic Symptoms:** May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (central nervous system) through prolonged or repeated exposure (Inhalation). May cause genetic defects.

11.2. Information on Toxicological Effects - Ingredient(s)

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LD50 and LC50 Data:

n-Heptane (142-82-5)			
LD50 Oral Rat	> 5000 mg/kg		
LD50 Dermal Rabbit	3000 mg/kg		
LC50 Inhalation Rat	> 73.5 mg/L/4h		
Hexane (110-54-3)			
LD50 Oral Rat	25 g/kg		
LD50 Dermal Rabbit	3000 mg/kg		
LC50 Inhalation Rat	169 mg/L/4h		
LC50 Inhalation Rat	48000 ppm/4h		
n-Pentane (109-66-0)			
LD50 Oral Rat	> 2000 mg/kg		
LD50 Dermal Rabbit	3000 mg/kg		
LC50 Inhalation Rat	364 g/m³ (Exposure time: 4 h)		
LC50 Inhalation Rat	> 20 mg/L/4h		
n-Butane (106-97-8)			
LC50 Inhalation Rat	30957 mg/m³ (Exposure time: 4 h)		
LC50 Inhalation Rat	276798.8 ppm		
Benzene (71-43-2)			
LD50 Oral Rat	810 mg/kg		
LD50 Dermal Rabbit	> 8200 mg/kg		
LC50 Inhalation Rat	44.66 mg/L/4h		
Xylenes (o-, m-, p- isomers) (1330-20-7)			
LD50 Oral Rat	> 5000 mg/kg		
Hydrogen sulfide (7783-06-4)			
LC50 Inhalation Rat	444 ppm/4h		
Benzene (71-43-2)			
IARC Group	1		
National Toxicology Program (NTP) Status	Known Human Carcinogens, Evidence of Carcinogenicity.		
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.		
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.		
Xylenes (o-, m-, p- isomers) (1330-20-7)			
IARC Group	3		

SECTION 12: ECOLOGICAL INFORMATION

12.1. **Toxicity**

Ecology - General: Very toxic to aquatic life with long lasting effects.

n-Heptane (142-82-5)	
LC50 Fish 1	375 mg/L (Exposure time: 96 h - Species: Cichlid fish)
EC50 - Crustacea [1]	0.1 mg/L
Hexane (110-54-3)	
LC50 Fish 1	2.1 – 2.98 mg/L (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	3.88 mg/L
n-Pentane (109-66-0)	
LC50 Fish 1	9.87 mg/L (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 - Crustacea [1]	9.74 mg/L (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	11.59 mg/L (Exposure time: 96 h - Species: Pimephales promelas)
NOEC Chronic Algae	2 mg/L
Isopentane (78-78-4)	
EC50 - Crustacea [1]	2.3 mg/L (Exposure time: 48 h - Species: Daphnia magna)
Benzene (71-43-2)	

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LC50 Fish 1

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10.7 – 14.7 mg/L (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

LC30 FISH 1	10.7 – 14.7 mg/t (exposure time. 96 n - Species. Pimephales prometas [now-timough])
EC50 - Crustacea [1]	8.76 – 15.6 mg/L (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 Fish 2	5.3 mg/L (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 - Crustacea [2]	10 mg/L (Exposure time: 48 h - Species: Daphnia magna)
ErC50 algae	29 mg/L
NOEC Chronic Fish	0.8 mg/L
Xylenes (o-, m-, p- isomers) (1330-20-7)	
LC50 Fish 1	3.3 mg/L
EC50 - Crustacea [1]	3.82 mg/L (Exposure time: 48 h - Species: water flea)
LC50 Fish 2	2.661 (2.661 – 4.093) mg/L (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
NOEC Chronic Crustacea	1.17 mg/L
Hydrogen sulfide (7783-06-4)	
LC50 Fish 1	0.0448 mg/L (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 Fish 2	0.016 mg/L (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
12.2. Persistence and Degradabilit	v
Natural Gas Condensate, Sour	1
Persistence and Degradability	May cause long-term adverse effects in the environment.
12.3. Bioaccumulative Potential	
Natural Gas Condensate, Sour	
Bioaccumulative Potential	Not established.
	Not established.
n-Heptane (142-82-5)	4.55
Partition coefficient n-octanol/water	4.66
(Log Pow)	
Hexane (110-54-3)	4 + 20 00 (50 05) (+ 11 7)
Partition coefficient n-octanol/water	4 at 20 °C (68 °F) (at pH 7)
(Log Pow)	
n-Pentane (109-66-0)	
Partition coefficient n-octanol/water	3.45 at 25 °C (77 °F) (at pH 7)
(Log Pow)	
Isopentane (78-78-4)	
Partition coefficient n-octanol/water	4 at 25 °C (77 °F) (at pH 6.6)
(Log Pow)	
n-Butane (106-97-8)	
Partition coefficient n-octanol/water	2.31 at 20 °C (68 °F) (at pH 7)
(Log Pow)	
Isobutane (75-28-5)	
BCF Fish 1	1.57 – 1.97
Partition coefficient n-octanol/water	1.09 – 2.8 at 20 °C (68 °F) (at pH 7)
(Log Pow)	
Benzene (71-43-2)	
BCF Fish 1	3.5 – 4.4
Partition coefficient n-octanol/water	2.13
(Log Pow)	
Xylenes (o-, m-, p- isomers) (1330-20-7)	
BCF Fish 1	0.6 (0.6 – 15)
Partition coefficient n-octanol/water	2.77 – 3.15
(Log Pow)	
Hydrogen sulfide (7783-06-4)	
BCF Fish 1	(no bioaccumulation expected)

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Partition coefficient n-octanol/water	0.45 at 25 °C (77 °F)
(Log Pow)	

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : PETROLEUM PRODUCTS, N.O.S

Hazard Class : 3
Identification Number : UN1268
Label Codes : 3

Packing Group : | Marine Pollutant : Marin

Marine Pollutant : Marine pollutant

ERG Number : 128

14.2. In Accordance with IMDG

Proper Shipping Name : PETROLEUM PRODUCTS, N.O.S.

Hazard Class : 3
Identification Number : UN1268
Label Codes : 3
Packing Group : I
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E

Marine pollutant : Marine pollutant



Proper Shipping Name: PETROLEUM DISTILLATES, N.O.S.

Hazard Class : 3
Identification Number : UN1268
Label Codes : 3
Packing Group : I
ERG Code (IATA) : 3H

14.4. In Accordance with TDG

Proper Shipping Name: PETROLEUM PRODUCTS, N.O.S.

Hazard Class : 3
Identification Number : UN1268
Label Codes : 3

Packing Group : |

Marine Pollutant (TDG) : Marine pollutant



SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Natural Gas Condensate, Sour

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ccording To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regul		
SARA Section 311/312 Hazard Classes	Health hazard - Specific target organ toxicity (single or repeated	
	exposure)	
	Health hazard - Carcinogenicity	
	Health hazard - Reproductive toxicity	
	Health hazard - Skin corrosion or Irritation	
	Physical hazard - Flammable (gases, aerosols, liquids, or solids)	
	Health hazard - Germ cell mutagenicity	
	Health hazard - Aspiration hazard	
n-Heptane (142-82-5)		
Listed on the United States TSCA (Toxic Substances Control Ac	ct) inventory - Status: Active	
Hexane (110-54-3)		
Listed on the United States TSCA (Toxic Substances Control Ac	· · · · · · · · · · · · · · · · · · ·	
Subject to reporting requirements of United States SARA Sect		
CERCLA RQ	5000 lb	
SARA Section 313 - Emission Reporting	1%	
n-Pentane (109-66-0)		
Listed on the United States TSCA (Toxic Substances Control Ac	ct) inventory - Status: Active	
Isopentane (78-78-4)		
Listed on the United States TSCA (Toxic Substances Control Ac	ct) inventory - Status: Active	
n-Butane (106-97-8)		
Listed on the United States TSCA (Toxic Substances Control Ac	t) inventory - Status: Active	
Isobutane (75-28-5)		
Listed on the United States TSCA (Toxic Substances Control Ac	t) inventory - Status: Active	
Benzene (71-43-2)		
Listed on the United States TSCA (Toxic Substances Control Ac	ct) inventory - Status: Active	
Subject to reporting requirements of United States SARA Sect	ion 313	
CERCLA RQ	10 lb	
SARA Section 313 - Emission Reporting	0.1 %	
Xylenes (o-, m-, p- isomers) (1330-20-7)		
Listed on the United States TSCA (Toxic Substances Control Ac	ct) inventory - Status: Active	
Subject to reporting requirements of United States SARA Sect	ion 313	
CERCLA RQ	100 lb	
SARA Section 313 - Emission Reporting	1%	
Hydrogen sulfide (7783-06-4)		
Listed on the United States TSCA (Toxic Substances Control Ac	ct) inventory - Status: Active	
Listed on the United States SARA Section 302		
Subject to reporting requirements of United States SARA Section 313		
CERCLA RQ	100 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb	
SARA Section 313 - Emission Reporting	1%	
D018-Unlisted hazardous wastes characteristic of toxicity (benzene)		
CERCLA RQ	10 lb	

15.2. **US State Regulations**

California Proposition 65



WARNING: This product can expose you to Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

•		J	0 0	
Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Hexane (110-54-3)				Х
Benzene (71-43-2)	Х	X		Х

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n-Heptane (142-82-5)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

Hexane (110-54-3)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

n-Pentane (109-66-0)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

Isopentane (78-78-4)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

n-Butane (106-97-8)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

Isobutane (75-28-5)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List

Benzene (71-43-2)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) Special Hazardous Substances
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

Xylenes (o-, m-, p- isomers) (1330-20-7)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

Hydrogen sulfide (7783-06-4)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List

15.3. Canadian Regulations

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n-Heptane (142-82-5)

Listed on the Canadian DSL (Domestic Substances List)

Hexane (110-54-3)

Listed on the Canadian DSL (Domestic Substances List)

n-Pentane (109-66-0)

Listed on the Canadian DSL (Domestic Substances List)

Isopentane (78-78-4)

Listed on the Canadian DSL (Domestic Substances List)

n-Butane (106-97-8)

Listed on the Canadian DSL (Domestic Substances List)

Isobutane (75-28-5)

Listed on the Canadian DSL (Domestic Substances List)

Benzene (71-43-2)

Listed on the Canadian DSL (Domestic Substances List)

Xylenes (o-, m-, p- isomers) (1330-20-7)

Listed on the Canadian DSL (Domestic Substances List)

Hydrogen sulfide (7783-06-4)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest : 02/22/2023

Revision

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA

Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products

Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

H220	Extremely flammable gas
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US)

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