

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: 08/16/2024 Revision Date: 07/26/2024 Version: 2.0

**SECTION 1: IDENTIFICATION** 

#### 1.1. **Product Identifier**

Product Form: Mixture

Product Name: Propane

Synonyms: Commercial Propane, LP-Gas, Liquified Petroleum Gas, Dimethylmethane

#### Intended Use of the Product 1.2.

Fuel

#### 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**

CHEMTREC: 1-800-424-9300 (US/Canada) +01 703-527-3887 (International)

### **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. **Classification of the Substance or Mixture**

•	
Flammable gases Category 1	H220
Gases under pressure Liquefied gas	H280
Simple Asphyxiant	
Hazardous to the aquatic environment - Acute Hazard Category 3	H402
Hazardous to the aquatic environment - Chronic Hazard Category 3	H412

#### **Label Elements** 2.2.

GHS-US/CA Labeling		
Hazard Pictograms (GHS-US/CA)	:	GH502 GH504
Signal Word (GHS-US/CA)	:	Danger
Hazard Statements (GHS-US/CA)	:	H220 - Extremely flammable gas.
		H280 - Contains gas under pressure; may explode if heated.
		H402 - Harmful to aquatic life.
		H412 - Harmful to aquatic life with long lasting effects.
		May displace oxygen and cause rapid suffocation.
Precautionary Statements (GHS-US/CA)	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
		P273 - Avoid release to the environment.
		P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
		P381 - In case of leakage, eliminate all ignition sources.
		P410+P403 - Protect from sunlight. Store in a well-ventilated place.
		P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

#### 2.3. **Other Hazards**

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Contact with gas escaping the container can cause frostbite.

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).

### 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
Propane	Normal propane / n-Propane / R290	(CAS-No.) 74-98-6	> 90	Flam. Gas 1, H220
				Press. Gas (Liq.), H280
				Simple Asphyxiant
Ethane	Ethyl hydride	(CAS-No.) 74-84-0	< 5	Flam. Gas 1, H220
				Press. Gas (Liq.), H280
				Simple Asphyxiant
n-Butane	Butane	(CAS-No.) 106-97-8	< 5	Flam. Gas 1, H220
				Press. Gas (Liq.), H280
				Simple Asphyxiant
Isobutane	2-Methylpropane / Propane, 2-methyl- / R600a	(CAS-No.) 75-28-5	< 2.5	Flam. Gas 1, H220
				Press. Gas (Liq.), H280
				Simple Asphyxiant
Ethanethiol	Ethyl mercaptan / Ethyl hydrosulfide / Ethyl	(CAS-No.) 75-08-1	< 0.1	Flam. Liq. 1, H224
	sulfhydrate / Ethyl thioalcohol / Thioethanol / Thioethyl alcohol			Acute Tox. 4 (Oral), H302
				Acute Tox. 4 (Inhalation:vapor), H332
				Skin Sens. 1B, H317
				Aquatic Acute 1, H400
				Aquatic Chronic 1, H410

Full text of H-statements: see section 16

\*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%).

### **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:** First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists. For brief contact with a small amount: Rewarm with body heat. Get immediate medical advice/attention. For extensive contact or a large amount: Immediately call a poison center/doctor and follow their advice. Specific treatment is urgent, incorrect first-aid practices will aggravate the injury. Protect affected area with a loose cover until proper medical treatment is received.

**Eye Contact:** Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists. If frostbite or freezing occurs, immediately flush with plenty of lukewarm water to GENTLY warm the affected area. Do not use hot water. Do not rub affected area. Get immediate medical attention. **Ingestion:** Ingestion is not an anticipated route of exposure. If accidental ingestion occurs, flush mouth out with water and get medical attention. Though risk of ingestion is extremely unlikely, in case of frostbite or freeze burns due to oral exposure seek immediate medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May cause frostbite on contact with the liquid. Asphyxia by lack of oxygen: risk of death.

**Inhalation:** In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death.

Skin Contact: Contact with gas/liquid escaping the container can cause frostbite and freeze burns.

Eye Contact: Contact with gas/liquid escaping the container can cause frostbite, freeze burns, and permanent eye damage.

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).

**Ingestion:** Not considered a potential route of exposure, but contact with gas/liquid escaping the container can cause freeze burns and frostbite.

Chronic Symptoms: None known.

### 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:** Do not extinguish burning gas if flow cannot be shut off immediately. Extinguish secondary FIRES with appropriate materials.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### 5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Extremely flammable gas.

Explosion Hazard: May form flammable/explosive vapor-air mixture. Container may explode in heat of fire.

Reactivity: Hazardous reactions will not occur under normal conditions.

#### 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. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. 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 oxides (CO, CO<sub>2</sub>).

Other Information: Use water spray to disperse vapors. 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: Eliminate every possible source of ignition. Do not get in eyes, on skin, or on clothing. Do not breathe Gas.

#### 6.1.1. For Non-Emergency Personnel

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

Emergency Procedures: Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

**Emergency Procedures:** Eliminate ignition sources. Evacuate unnecessary personnel, isolate, and ventilate 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.

#### 6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Remove ignition sources. Stop leak, if possible without risk. 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. Stop the source of the release, if safe to do so. Consider the use of water spray to disperse vapors. Isolate the area until gas has dispersed. Ventilate and gas test area before entering. 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. Ruptured cylinders may rocket. Do not pressurize, cut, or weld containers. Asphyxiating gas at high concentrations.

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Do not breathe gas.

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

#### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

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).

**Technical Measures:** Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed. **Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Keep in fireproof place. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling.

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

7.3. Specific End Use(s)

Fuel

## 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.

0		
Propane (74-98-6)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
USA OSHA	OSHA PEL TWA	1800 mg/m <sup>3</sup>
USA OSHA	OSHA PEL TWA	1000 ppm
USA NIOSH	NIOSH REL TWA	1800 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL TWA	1000 ppm
USA IDLH	IDLH	2100 ppm (10% LEL)
Alberta	OEL TWA	1000 ppm
Nunavut	OEL STEL	1250 ppm
Nunavut	OEL TWA	1000 ppm
Northwest Territories	OEL STEL	1250 ppm
Northwest Territories	OEL TWA	1000 ppm
Québec	VEMP OEL TWA	1800 mg/m <sup>3</sup>
Québec	VEMP OEL TWA	1000 ppm
Saskatchewan	OEL STEL	1250 ppm
Saskatchewan	OEL TWA	1000 ppm
Ethane (74-84-0)		
USA ACGIH	ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content
Alberta	OEL TWA	1000 ppm
Nunavut	OEL STEL	1250 ppm
Nunavut	OEL TWA	1000 ppm
Northwest Territories	OEL STEL	1250 ppm
Northwest Territories	OEL TWA	1000 ppm
Saskatchewan	OEL STEL	1250 ppm
Saskatchewan	OEL TWA	1000 ppm
n-Butane (106-97-8)		
USA ACGIH	ACGIH OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
USA NIOSH	NIOSH REL TWA	1900 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL TWA	800 ppm
USA IDLH	IDLH	1600 ppm (>10% LEL)
Alberta	OEL TWA	1000 ppm
British Columbia	OEL STEL	1000 ppm (Butane, all isomers)
Manitoba	OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
New Brunswick	OEL TWA	1900 mg/m <sup>3</sup>
New Brunswick	OEL TWA	800 ppm
Newfoundland & Labrador	OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
Nova Scotia	OEL STEL	1000 ppm (explosion hazard (Butane, isomers)

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).

		cording To The Hazardous Products Regulation (February 11, 2015).
Nunavut	OEL STEL	1250 ppm (Butane, all isomers)
Nunavut	OEL TWA	1000 ppm (Butane, all isomers)
Northwest Territories	OEL STEL	1250 ppm (Butane, all isomers)
Northwest Territories	OEL TWA	1000 ppm (Butane, all isomers)
Ontario	OEL STEL	1000 ppm (explosion hazard (Butane, all isomers)
Prince Edward Island	OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
Québec	VEMP OEL TWA	1900 mg/m <sup>3</sup>
Québec	VEMP OEL TWA	800 ppm
Saskatchewan	OEL STEL	1250 ppm (Butane, all isomers)
Saskatchewan	OEL TWA	1000 ppm (Butane, all isomers)
Yukon	OEL STEL	1600 mg/m <sup>3</sup>
Yukon	OEL STEL	750 ppm
Yukon	OELTWA	1400 mg/m <sup>3</sup>
Yukon	OELTWA	600 ppm
Isobutane (75-28-5)		
USA ACGIH	ACGIH OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
USA NIOSH	NIOSH REL TWA	1900 mg/m <sup>3</sup>
USA NIOSH USA NIOSH	NIOSH REL TWA	800 ppm
British Columbia	OEL STEL	1000 ppm (Butane, all isomers)
Manitoba	OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
Newfoundland & Labrador	OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
Nova Scotia	OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
Nunavut	OEL STEL	1250 ppm (Butane, all isomers)
Nunavut	OEL TWA	1000 ppm (Butane, all isomers)
Northwest Territories	OEL TWA	1250 ppm (Butane, all isomers)
Northwest Territories	OELTWA	1000 ppm (Butane, all isomers)
Ontario	OEL STEL	1000 ppm (explosion hazard (Butane, all isomers)
Prince Edward Island	OEL STEL	1000 ppm (explosion hazard (Butane, isomers)
Saskatchewan	OEL STEL	1250 ppm (Butane, all isomers)
Saskatchewan	OEL TWA	1000 ppm (Butane, all isomers)
Ethanethiol (75-08-1)		
USA ACGIH	ACGIH OEL TWA	0.5 ppm
USA OSHA	OSHA PEL (Ceiling)	25 mg/m <sup>3</sup>
USA OSHA	OSHA PEL C	10 ppm
USA NIOSH	NIOSH REL (Ceiling)	1.3 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL C	0.5 ppm
USA IDLH	IDLH	500 ppm
Alberta	OEL TWA	1.3 mg/m <sup>3</sup>
Alberta	OEL TWA	0.5 ppm
British Columbia	OELTWA	0.5 ppm
Manitoba	OEL TWA	0.5 ppm
New Brunswick	OELTWA	1.3 mg/m <sup>3</sup>
New Brunswick	OEL TWA	0.5 ppm
Newfoundland & Labrador	OELTWA	0.5 ppm
Nova Scotia	OELTWA	0.5 ppm
Nunavut	OEL STEL	1.5 ppm
Nunavut	OELTWA	0.5 ppm
Northwest Territories	OEL STEL	1.5 ppm
Northwest Territories	OEL TWA	0.5 ppm
Ontario	OEL TWA	0.5 ppm
Prince Edward Island	OEL TWA	0.5 ppm

#### Safety Data Sheet

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

Québec	VEMP OEL TWA	1.3 mg/m <sup>3</sup>	
Québec	VEMP OEL TWA	0.5 ppm	
Saskatchewan	OEL STEL	1.5 ppm	
Saskatchewan	OEL TWA	0.5 ppm	
Yukon	OEL C	7.6 mg/m <sup>3</sup>	
Yukon	OEL Ceiling	3 ppm	
Aliphatic hydrocarbon gases	Aliphatic hydrocarbon gases, alkane (C2-4)		
Alberta	OEL TWA	1000 ppm	
Aliphatic hydrocarbon gases	Aliphatic hydrocarbon gases: Alkanes (C1-4)		
Nunavut	OEL STEL	1250 ppm	
Nunavut	OEL TWA	1000 ppm	
Northwest Territories	OEL STEL	1250 ppm	
Northwest Territories	OEL TWA	1000 ppm	
Saskatchewan	OEL STEL	1250 ppm	
Saskatchewan	OEL TWA	1000 ppm	

#### 8.2. **Exposure Controls**

Appropriate Engineering Controls: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Use explosion-proof equipment. Proper grounding procedures to avoid static electricity should be followed. Gas detectors should be used when flammable gases or vapors may be released. Oxygen detectors should be used when asphixiating gases may be released. Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.

Respiratory protection of the dependent type.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing. Hand Protection: Wear protective gloves. If material is cold, wear thermally resistant protective gloves.

Eye and Face Protection: Chemical safety goggles. Faceshield as determined by task.

Skin and Body Protection: Wear suitable protective clothing.

**Respiratory Protection:** Use a NIOSH-approved self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Thermal Hazard Protection: Wear thermally resistant protective clothing.

# S

Physical State	: Gas
	. Gas
Appearance	: Colorless
Odor	: Normally odorless. Pungent odor present if odorizing agent is added.
Odor Threshold	: No data available
рН	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: -42 °C (-43.6 °F)
Flash Point	: -104 °C (-155.2 °F)
Auto-ignition Temperature	: >426.7 °C (800 °F)
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Extremely flammable gas
Lower Flammable Limit	: 2.1 %
Upper Flammable Limit	: 9.5 %
Vapor Pressure	: 208 mm Hg (4 psi)

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).

Relative Vapor Density at 20°C	: No data available
Relative Density	: 0.5 – 0.51 (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
Explosive Properties	: Contains gas under pressure; may explode if heated

## SECTION 10: STABILITY AND REACTIVITY

#### 10.1. Reactivity:

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability:

Contains gas under pressure; may explode if heated.

#### 10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

#### 10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, open flames, sources of ignition and incompatible materials.

#### 10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers.

**10.6.** Hazardous Decomposition Products:

Thermal decomposition may produce: Carbon oxides (CO, CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on Toxicological Effects – Product

Likely routes of exposure: Dermal. Eye contact. Inhalation.

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: Not classified

Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

**Symptoms/Injuries After Inhalation:** In elevated concentrations may cause asphyxiation, central nervous system effects, and increased breathing rate. Symptoms of asphyxiation include headache, dizziness, rapid breathing, increased pulse, mood changes, tremors, cyanosis, muscular weakness, narcosis, numbness of the extremities, unconsciousness and death.

Symptoms/Injuries After Skin Contact: Contact with gas/liquid escaping the container can cause frostbite and freeze burns. Symptoms/Injuries After Eye Contact: Contact with gas/liquid escaping the container can cause frostbite, freeze burns, and

permanent eye damage.

Symptoms/Injuries After Ingestion: Not considered a potential route of exposure, but contact with gas/liquid escaping the container can cause freeze burns and frostbite.

Chronic Symptoms: None known.

#### **11.2.** Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:		
Propane (74-98-6)		
LC50 Inhalation Rat	> 800000 ppm (Exposure time: 15 min)	
Ethane (74-84-0)		
LC50 Inhalation Rat	> 800000 ppm/4h	
n-Butane (106-97-8)		
LC50 Inhalation Rat	30957 mg/m <sup>3</sup> (Exposure time: 4 h)	
07/06/0004		7/40

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).

LC50 Inhalation Rat	276798.8 ppm
Ethanethiol (75-08-1)	
LD50 Oral Rat	682 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	11.23 mg/l/4h
LC50 Inhalation Rat	4420 ppm/4h

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

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

Ethanethiol (75-08-1)	
LC50 Fish	2.2 mg/l
EC50 Crustacea	90 – 280 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Crustacea	0.09 – 0.28 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
NOEC Chronic Crustacea	0.009 mg/l

May cause long-term adverse effects in the environment.

#### **12.2.** Persistence and Degradability

Propane

Persistence and Degradability	
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### 12.3. Bioaccumulative Potential

Propane		
<b>Bioaccumulative Potential</b>	Not established.	
Propane (74-98-6)		
Partition coefficient n-octanol/water	1.09 at 20 °C / 68 °F (at pH 7)	
(Log Pow)		
Ethane (74-84-0)		
Partition coefficient n-octanol/water	1.09 – 2.8 at 20 °C / 68 °F (at pH 7)	
(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	1.57 – 1.97	
Partition coefficient n-octanol/water	1.09 – 2.8 at 20 °C / 68 °F (at pH 7)	
(Log Pow)		
Ethanethiol (75-08-1)		
Partition coefficient n-octanol/water	1.5 at 20 °C / 68 °F (at pH 7)	
(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. Empty gas cylinders should be returned to the vendor for recycling or refilling. Do not puncture or incinerate container.

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

#### 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).

### 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.

and can vary based on a number	of variables that may or may not have been known at tr
14.1. In Accordance with I	ООТ
Proper Shipping Name	: PETROLEUM GASES, LIQUEFIED
Hazard Class	: 2.1
Identification Number	: UN1075
Label Codes	: 2.1
ERG Number	: 115
14.2. In Accordance with I	MDG
Proper Shipping Name	: PETROLEUM GASES, LIQUEFIED
Hazard Class	: 2.1
Identification Number	: UN1075
Label Codes	: 2.1
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
14.3. In Accordance with I	ΑΤΑ
Proper Shipping Name	: PETROLEUM GASES, LIQUEFIED
Hazard Class	: 2.1
Identification Number	: UN1075
Label Codes	: 2.1
ERG Code (IATA)	: 10L
14.4. In Accordance with T	DG
Proper Shipping Name	: PETROLEUM GASES, LIQUEFIED
Hazard Class	: 2.1
Identification Number	: UN1075
Label Codes	: 2.1

## SECTION 15: REGULATORY INFORMATION

# 15.1. US Federal Regulations

Propane	
SARA Section 311/312 Hazard Classes	Health hazard - Simple asphyxiant
	Physical hazard - Flammable (gases, aerosols, liquids, or solids)
	Physical hazard - Gas under pressure
Propane (74-98-6)	
Listed on the United States TSCA (Toxic Substances Co	ontrol Act) inventory - Status: Active
Ethane (74-84-0)	
Listed on the United States TSCA (Toxic Substances Co	ontrol Act) inventory - Status: Active
n-Butane (106-97-8)	
Listed on the United States TSCA (Toxic Substances Co	ontrol Act) inventory - Status: Active
Isobutane (75-28-5)	
Listed on the United States TSCA (Toxic Substances Co	ontrol Act) inventory - Status: Active
Ethanethiol (75-08-1)	
Listed on the United States TSCA (Toxic Substances Co	ontrol Act) inventory - Status: Active
15.2. US State Regulations	
Propane (74-98-6)	
U.S New Jersey - Right to Know Hazardous Substand	ce List
U.S Pennsylvania - RTK (Right to Know) List	
U.S Massachusetts - Right To Know List	

U.S. - Massachusetts - Right To Know List

#### Ethane (74-84-0)

Safety Data Sheet

fety Data Sheet cording To Federal Register / Vol. 77, No. 5	8 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).
U.S New Jersey - Right to K	now Hazardous Substance List
U.S Pennsylvania - RTK (Rig	
U.S Massachusetts - Right 1	
n-Butane (106-97-8)	
	now Hazardous Substance List
U.S Pennsylvania - RTK (Rig	
U.S Massachusetts - Right 1	o Know List
Isobutane (75-28-5)	
U.S New Jersey - Right to K	now Hazardous Substance List
U.S Pennsylvania - RTK (Rig	ht to Know) List
U.S Massachusetts - Right 1	o Know List
Ethanethiol (75-08-1)	
	now Hazardous Substance List
U.S Pennsylvania - RTK (Rig	
U.S Massachusetts - Right 1	
5.3. Canadian Regulati	ons
Propane (74-98-6)	
Listed on the Canadian DSL (I	Jomestic Substances List)
Ethane (74-84-0)	
Listed on the Canadian DSL (I	Domestic Substances List)
n-Butane (106-97-8)	
Listed on the Canadian DSL (I	Domestic Substances List)
Isobutane (75-28-5)	
Listed on the Canadian DSL (I	Domestic Substances List)
Ethanethiol (75-08-1)	
Listed on the Canadian DSL (I	Domestic Substances List)
ECTION 16: OTHER INFO	RMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION
Date of Preparation or Lates	t : 07/26/2024
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
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
	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)