1. **IDENTIFICATION**

Product Identifier: Propane Liquid Odorized

Synonyms: Propane; Bottled Gas; Dimethyl Methane; Propyl Hydride

Intended use of the product: Fuel

Contact: Global Companies LLC
Water Mill Center
800 South St.
Waltham, MA 02454-9161
www.globalp.com

Contact Information: EMERGENCY TELEPHONE NUMBER (24 hrs): CHEMTREC (800) 424-9300
COMPANY CONTACT (business hours): 800-542-0778

2. **HAZARD IDENTIFICATION**

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

<table>
<thead>
<tr>
<th>Classification (GHS-US):</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Gas 1</td>
<td>H220</td>
<td></td>
</tr>
<tr>
<td>Compressed gas</td>
<td>H280</td>
<td></td>
</tr>
</tbody>
</table>

Simple Asphyxiant

**Labeling Elements**

**Signal Word (GHS-US):** Danger

H220 - Extremely flammable gas.
H280 - Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

**Hazard Statements (GHS-US):**

P210 - Keep away from heat, open flames, hot surfaces, sparks. - No smoking.
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - Eliminate all ignition sources if safe to do so.
P410+P403 – Protect from sunlight. Store in a well-ventilated place.
P501 – Dispose of contents/container according to local, regional, national, and international regulations.

**Other information:**

NFPA 704
Health: 2
Fire: 4
Reactivity: 0
3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition Information

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Name</th>
<th>Product Identifier (CAS#)</th>
<th>% (w/w)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Propane</td>
<td>74-98-6</td>
<td>90-100</td>
<td>Simple Asphy; Flam Gas 1, H220; Compressed gas, H280</td>
</tr>
<tr>
<td></td>
<td>Ethane</td>
<td>74-84-0</td>
<td>3-7</td>
<td>Simple Asphy; Flam Gas 1, H220; Compressed gas, H280</td>
</tr>
<tr>
<td></td>
<td>Propylene</td>
<td>114-07-1</td>
<td>0-5</td>
<td>Simple Asphy; Flam Gas 1, H220; Compressed gas, H280</td>
</tr>
<tr>
<td></td>
<td>Butane</td>
<td>106-97-8</td>
<td>0.1-1</td>
<td>Simple Asphy; Flam Gas 1, H220; Compressed gas, H280</td>
</tr>
<tr>
<td>*Ethyl mercaptan</td>
<td>75-08-1</td>
<td>&lt;50 ppm</td>
<td></td>
<td>Flam Liq 2, H225; Skin Sens 1, H317; Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

*This is an odorant.

4. FIRST AID MEASURES

<table>
<thead>
<tr>
<th>Route</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Move person to fresh air and seek medical attention. If person is not breathing, provide artificial respiration. Provide additional oxygen once breathing is restored if trained.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>This material is a gas under normal atmospheric conditions and ingestion is unlikely. Risk of ingestion is extremely low. However, if oral exposure occurs do not induce vomiting. Seek medical attention.</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>If injury is due to pressure, treat abrasions/contusions symptomatically. In case of freeze burn cover eyes to protect from light and then seek medical attention.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>If injury is due to pressure, treat abrasions/contusions symptomatically. Remove contaminated clothing. In case of blistering, frostbite or freeze burns seek immediate medical attention.</td>
</tr>
</tbody>
</table>

Most Important Symptoms
Simple asphyxiants are inert gases or vapors that displace oxygen from the air, primarily in enclosed spaces, and, thus, result in hypoxia. Dermal exposure may cause frostbite.

Immediate Medical Attention and Special Treatment
If prolonged exposure or hypoxia is suspected, provide ventilation and oxygenation and administer 100% humidified supplemental oxygen with assisted ventilation, as required. Rewarm or use topical treatment for frostbite injury. If eyes were exposed, irrigate with copious amounts of room temperature water for at least 15 minutes and seek medical attention.

5. FIRE-FIGHTING MEASURES

Extinguishing Media
Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray, firefighting foam, or Halon. However, fires should not be extinguished unless flow of gas can be immediately stopped.

Specific Hazards / Products of Combustion
Evacuate area. Stay upwind. Propane is an explosion hazard and causes a dangerous fire when vapors are ignited from heat, spark, open flame or other source of ignition. Propane is heavier than air and may travel long distances to a point of ignition and flash back. Container may explode in heat or fire. Propane releases flammable gas at well below ambient temperatures and readily forms a flammable mixture with air.

Combustion may produce carbon monoxide and other products of incomplete combustion.

Special Precautions and Protective Equipment for Firefighters
If a leak has not ignited, use water spray to contain the vapors and to protect personnel attempting to stop the leak.
SAFETY DATA SHEET
Propane Liquid - Odorized

Boiling cryogenic liquids confined to tanks or containers exposed to fire could cause a boiling liquid expanding vapor explosion (BLEVE)

For fires in enclosed or confined areas, a self-contained breathing apparatus (SCBA) must be worn.

Unless creating a greater hazard, gas fires should not be extinguished. Re-accumulation of gas can result in an explosion. Fire impingement on surfaces (especially if the fire has been ongoing for a long period of time) could create sufficient heat to reignite product.

Fire Fighting Equipment/Instructions
Gas fires should not be extinguished unless flow of gas can be immediately stopped. Use water spray to protect personnel attempting to shut off gas source. Allow gas to burn out. Use water to cool equipment, surfaces and containers exposed to fire and excessive heat to prevent BLEVE. Remove combustible materials from immediate area if it can be done so safely. For large fires, the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Isolate area, particularly around ends of storage vessels. Let vessel, tank car or container burn unless leak can be stopped. Stay away from the ends of tanks and transports. Withdraw immediately in the event of a rising sound from a venting safety device. Large fires typically require specially trained personnel and equipment to isolate and extinguish the fire. Firefighting activities that may result in potential exposure to high heat, smoke or toxic byproducts of combustion should require NIOSH-approved pressure-demand self-contained breathing apparatus with full face piece and protective clothing.

Refer to Section 9 for fire properties of this chemical including flash point, auto ignition temperature, and explosive limits.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Do not touch if in a liquid state as it is a frost bite/freeze burn hazard. Avoid all contact with skin, eyes, or clothing. Avoid breathing gas. Use special care to avoid static electric charges. Eliminate every possible source of ignition. Keep away from heat, sparks, open flames and hot surfaces.

Use appropriate personal protective equipment to prevent skin and eye contact. Use of NIOSH approved Self-Contained Breathing Apparatus may be necessary due to oxygen displacement. Direct reading air monitoring for oxygen and combustible gasses should be used during release response.

Emergency Measures
Evacuate nonessential personnel and secure all ignition sources. No road flares, smoking or flames in hazard area. Consider wind direction, stay upwind and uphill, if possible. Evaluate the direction of product travel. Vapor cloud may be white, but color will dissipate as cloud disperses - fire and explosion hazard is still present. Releases indoors should be controlled remotely from a safe area. All personnel should evacuate interior locations using great care not to generate ignition sources. Product is heavier than air. Passive ventilation may be used to dilute gas concentrations to prevent an explosive atmosphere.

Environmental Precautions
Do not flush down sewer or drainage systems if in a liquid state.

Containment and Clean-Up Methods
Stop the source of the release, if safe to do so. Use a water spray to control vapors while personnel attempt to shut off source from a distance. Due the potential for fire or explosion from accumulation of vapors, spills or releases of this product should not be contained. Diversionary structures may be used to keep out of low lying areas, catch basins, culverts, and water bodies. Product should not be flushed or sprayed with water in a liquid state. Firefighting foam is not an effective knock-down agent for this product. Water fog sprayed into the air as a mist may be used as a capable knock-down agent. Maintain concentration of gas below the range of explosive mixture. Remove the tank or cylinder to an open area if this can be done safely without generating an ignition source. Leave to bleed off in the atmosphere.

Response and cleanup crews must be properly trained and must utilize proper protective equipment.

Refer to Section 8 for additional information, cleanup methods, and environmental precautions.

7. HANDLING AND STORAGE

Handling Precautions
Handle as a flammable gas. Keep away from heat, sparks, and open flame. No smoking. Electrical equipment should be
approved for classified areas. Bond and ground containers during product transfer pursuant to NFPA 52, NFPA 89 Octane Conventional (Oxygenated and Non-oxygenated) and Reformulated (RFG) Regular Unleaded Gasoline; 58, NFPA 70 and API RP 2003 to reduce the possibility of static-initiated fire or explosion. Use only in well ventilated areas. Product can displace oxygen at high concentrations. Do not enter confined spaces where product may be present. Test all confined spaces where product may accumulate for the presence of oxygen and combustible vapors.

Storage
Compressed gases may be stored in the open only if they are adequately protected from the weather and direct sunlight. Storage areas should be located at a safe distance from occupied premises and neighboring dwellings. Protect against physical damage. Outdoor or detached storage is preferred. Store in cool, well ventilated place and isolate from oxidizing agents. Prohibit open flame/smoking. Keep away from flame, sparks, excessive temperatures and open flame. Inspect for leakage occasionally. Storage temp: -260 °F. Check local fire codes and requirements for storage limitations / prohibitions indoors. Outdoor storage is recommended. Keep containers out of direct sunlight and exposed to temperatures in excess of 125 °F.

Only qualified personnel with approved dispensing equipment may load / or unload this product. Keep containers closed and clearly labeled. Store / transfer only into approved containers. Label all secondary containers that this material is transferred into with the chemical name and associated hazard(s). Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition. Post “No Smoking” signs in product handling and storage areas.

Incompatibles
Keep away from strong oxidizers, ignition sources and heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>List</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>ACGIH TWA</td>
<td>1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Ethane</td>
<td>74-84-0</td>
<td>ACGIH TWA</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td>ACGIH TWA</td>
<td>500 ppm</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>ACGIH STEL</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Ethyl mercaptan</td>
<td>75-08-1</td>
<td>ACGIH TWA</td>
<td>0.5 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL ceiling</td>
<td>10 ppm</td>
</tr>
</tbody>
</table>

Engineering Controls
Product should only be stored and conveyed in equipment and using materials specifically designed for gas service. Systems should be designed and installed by qualified personnel. Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and lower flammable limits. Do not vent indoors or other confined areas. If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure or explosive limits, additional engineering controls may be required.

Intrinsically safe equipment and non-sparking tools shall be used in circumstances where concentrations may exceed lower flammable limits. Grounding and bonding shall be used to prevent accumulation and discharge of static electricity.

Personal Protective Equipment

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye / Face</td>
<td>Safety glasses and face shield should be used to minimize potential injury on contact with pressurized gas or cryogenic liquid</td>
</tr>
<tr>
<td>Skin</td>
<td>Use cold-impervious, insulating gloves where contact with cryogenic liquid may occur. The use of skin protection is not normally required. It is always good industrial hygiene practice to use gloves and apron when working with cryogenic liquid. Clothing and shoes should be static dissipative and fire resistant when dispensing large quantities of product with a potential for concentrations to exceed lower flammable limits during routine operations or reasonably foreseeable malfunctions or emergencies.</td>
</tr>
</tbody>
</table>
Exposure

Respiratory Use a NIOSH approved self-contained breathing apparatus (SCBA), respirator or equivalent in a pressure demand or other positive pressure. It should be used in situations of oxygen deficiency (oxygen content less than 19.5%) or unknown exposure concentrations. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection and limitations. CAUTION: Flammability limits (i.e., explosion hazard) should be considered when assessing the need to expose personnel to concentrations requiring respiratory protection.

Thermal Liquid is cryogenic. Use impervious face shield, garments or apron if contact with liquid is anticipated. Wear loose fitting insulated gloves.

Primary hazard of this product is storage at pressure, asphyxiation and fire. Personal protective equipment is not an effective control for physical hazards. These hazards should be recognized and avoided when encountered.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless gas</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Product is odorless. Mercaptan odorant slight sulfur odor, “rotten egg” added to aid in detection.</td>
<td>Mercaptan</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>5-10 ppb</td>
<td>As odorized gas</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Melting Point</td>
<td>-306 °F (-188 °C)</td>
<td></td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>-44 °F (-42 °C)</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>-155 °F (-104 °C)</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Instantaneous</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>Compressed Gas</td>
<td></td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>2.1% - 9.5% by volume</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>851 KPa @ 70 °F (21 °C)</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>1.5 (air = 1)</td>
<td></td>
</tr>
<tr>
<td>Material Density</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Solubility</td>
<td>Very slight</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not applicable</td>
<td>(N-octanol/water)</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>878 °F (470 °C)</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Evaporation or ignition likely before decomposition will occur</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Percent Volatiles</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability
Stable under normal ambient and anticipated conditions of use.

Reactivity
Avoid all possible sources of ignition. Heat will increase pressure in the storage tank.
SAFETY DATA SHEET
Propane Liquid - Odorized

Possibility of Hazardous Reactions
Hazardous polymerization will not occur.

Incompatibility
Strong oxidizers.

Conditions to Avoid
High temperatures, open flames, sparks, welding, smoking, all ignition sources.

Hazardous Decomposition Products
Not anticipated under normal conditions of use. Byproducts of combustion include oxides of nitrogen, carbon dioxide, carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Acute Toxicity (Inhalation LC50)
Ethane (74-84-0)
LC50 Inhalation Rat 658 mg/l/4h (IUCLID)
Propane (74-98-6)
LC50 Inhalation Rat 658 mg/l/4h (IUCLID)
Butane (106-97-8) LC50 Inhalation Rat 64 mg/m3/4h (IUCLID)
Propylene (115-07-1)
LC50 Inhalation Rat 658 mg/l/4h (IUCLID)
Ethyl mercaptan (75-08-1)
LC50 Inhalation Rat 2.52 mg/m3/4h

Acute Toxicity (Dermal LC50)
Ethyl mercaptan (75-08-1)
LD50 Dermal Rabbit >2000 mg/kg

Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not available
Carcinogenicity: OSHA: NO IARC: NO NTP: NO ACGIH: NO
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified
Exposure Routes: Inhalation at high concentrations in confined spaces with less than 16% oxygen needed to sustain life, skin and/or eye contact (liquid).

Symptoms: Include dizziness, headache, confusion, excitation, vomiting, asphyxia, liquid frostbite.

12. ECOLOGICAL INFORMATION

Toxicity:
Harmful to aquatic life.
Data for Component: Ethyl mercaptan (75-08-1):

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50 Fish 1 1.38 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1 0.09 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2 3.20 mg/l (Exposure time: 96 h - Species: Pimephales promelas)

Persistence and Degradation: Not available

Bioaccumulative Potential: Not expected based on volatile nature of material.

Ethane (74-84-0)
Log Kow 1.8

Propane (74-98-6)
Log Kow 2.3

Butane (106-97-8)
Log Kow 2.8

Ethyl Mercaptan (75-08-1)
Log Kow Not applicable

Mobility in Soil: Not available

Other Adverse Effects: None

Other Information: Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

This product is a gas and typically would not be managed as a waste. If necessary, allow to dissipate to the atmosphere (if permitted by federal/provincial/municipal requirements). Dispose in a safe location, preferably by burning with a flare. If disposal of propane cannot be flared, care must be taken to ensure complete dissipation of the gas to a concentration below its flammable limits. Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier.

14. TRANSPORT INFORMATION

US DOT
UN Identification Number UN 1075
Proper Shipping Name Liquefied petroleum gas (propane)
Hazard Class and Packing Group 2.1
Shipping Label Flammable Gas
Placard / Bulk Package Flammable Gas / UN 1075
Emergency Response Guidebook Guide Number 115

IATA Cargo
UN Identification Number UN 1978
Proper Shipping Name Propane
Hazard Class and Packing Group 2.1
ICAO Label 2.1
Packing Instructions Cargo Forbidden
Emergency Response Guidebook Guide Number Forbidden

IATA Passenger
UN Identification Number Forbidden
Shipping Name / Description Forbidden
Hazard Class and Packing Group Forbidden
SAFETY DATA SHEET
Propane Liquid - Odorized

ICAO Label

Packing Instructions
Forbidden
Max Quantity per Package
Forbidden

IMDG
UN Identification Number
UN 1978
Shipping Name / Description
Propane
Hazard Class and Packing Group
2.1
IMDG Label
2.1
EmS Number
F-D-S-U
Marine Pollutant
NA

If this product is placed into pressurized containers and offered for shipment, please refer to 49 CFR 171.306 and 171.302 for appropriate regulatory information.

DOT Special Provisions (49 CFR 172.102)
19 - For domestic transportation only, the identification number UN1075 may be used in place of the identification number specified in column (4) of the 172.101 table. The identification number used must be consistent on package markings, shipping papers and emergency response information. T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in accordance with the requirements of 173.313 of this subchapter.

15. REGULATORY INFORMATION

U.S. Federal, State, and Local Regulatory Information
Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other federal, state, or local regulations; consult those regulations applicable to your facility/operation.

OSHA Hazard Communication Standard
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Immediate (Acute) Health Hazard
Yes
Delayed (Chronic) Health Hazard
No
Fire Hazard
Yes
Reactive Hazard
No
Sudden Release of Pressure Hazard
Yes
Simple asphyxiant

Clean Water Act (Oil Spills)
No components listed.

CERCLA Section 103 and SARA Section 304 (Release to the Environment)
The CERCLA definition of hazardous substances contains a “petroleum exclusion” clause which exempts this material. This product does not contain any chemicals subject to the reporting requirements of CERCLA Section 103 or SARA 304.

SARA Section 313- Supplier Notification
This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td>0-5%</td>
</tr>
</tbody>
</table>

This product does not contain any chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372.
Pennsylvania Right to Know Hazardous Substance list:
The following product components are cited in the Pennsylvania Special Hazardous Substance List, and are present at levels which require reporting.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>90-100%</td>
</tr>
<tr>
<td>Ethane</td>
<td>74-84-0</td>
<td>3-7%</td>
</tr>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td>0-5%</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>0.1-1%</td>
</tr>
<tr>
<td>Ethyl Mercaptan</td>
<td>75-08-1</td>
<td>&lt;50 ppm</td>
</tr>
</tbody>
</table>

New Jersey Right to Know Hazardous Substance list:
The following product components are cited in the New Jersey Right to Know Hazardous Substance List, and are present at levels which require reporting.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>90-100%</td>
</tr>
<tr>
<td>Ethane</td>
<td>74-84-0</td>
<td>3-7%</td>
</tr>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td>0-5%</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>0.1-1%</td>
</tr>
<tr>
<td>Ethyl Mercaptan</td>
<td>75-08-1</td>
<td>&lt;50 ppm</td>
</tr>
</tbody>
</table>

California Proposition 65
This material does not contain any chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm at concentrations that trigger the warning requirements of California Proposition 65.

U.S. Toxic Substances Control Act
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

CEPA - Domestic Substances List (DSL)
All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Canadian Regulatory Information (WHMIS)
Class A - Compressed Gas
Class B1 - Flammable Gases

16. OTHER INFORMATION

Version 3
Issue Date May 2015
Prior Issue Date April 2013

Description of Revisions
Revised to meet Globally Harmonized System for chemical hazard communication requirements pursuant to OSHA regulatory revisions 77 FR 17884, March 26, 2012.
SAFETY DATA SHEET
Propane Liquid - Odorized

Abbreviations

˚F Degrees Fahrenheit (temperature)

< Less than

= Equal to

> Greater than

AP Approximately

C Centigrade (temperature)

kg Kilogram

L Liter

mg Milligrams

mL Milliliter

mm² Square millimeters

mmHg Millimeters of mercury (pressure)

N/A Not applicable

N/D Not determined

ppm Parts per million

sec Second

ug Micrograms

Acronyms

ACGIH American Conference of Governmental
Industrial Hygienists

AIHA American Industrial Hygiene Association

AL Action Level

ANSI American National Standards Institute

API American Petroleum Institute

CAS Chemical Abstract Service

CERCLA Comprehensive Emergency Response,
Compensation, and Liability Act

DOT U.S. Department of Transportation

EC50 Ecological concentration 50%

EPA U.S. Environmental Protection Agency

ERPG Emergency Response Planning Guideline

GHS Global Harmonized System

HMIS Hazardous Materials Information System

IARC International Agency for Research On Cancer

IATA International Air Transport Association

IMDG International Maritime Dangerous Goods

Koc Soil Organic Carbon

LC50 Lethal concentration 50%

LD50 Lethal dose 50%

MSHA Mine Safety and Health Administration

NFPA National Fire Protection Association

NIOSH National Institute of Occupational Safety and
Health

NOIC Notice of Intended Change

NTP National Toxicology Program

OPA Oil Pollution Act of 1990

OSHA U.S. Occupational Safety & Health Administration

PEL Permissible Exposure Limit (OSHA)

RCRA Resource Conservation and Recovery Act

REL Recommended Exposure Limit (NIOSH)

RVP Reid Vapor Pressure

SARA Superfund Amendments and

SCBA Self Contained Breathing Apparatus

SPCC Spill Prevention, Control, and Countermeasures

STEL Short Term Exposure Limit (generally 15 minutes)

TWA Time Weighted Average (8 hr.)

UN United Nations

UNECE United Nations Economic Commission for

Europe

TSCA Toxic Substances Control Act

TWA Time Weighted Average (8 hr.)

UN United Nations

WEEL Workplace Environmental Exposure Level

(AIHA)

WHMIS Canadian Workplace Hazardous Materials

Information System

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** End of Safety Data Sheet **