



Safety Data Sheet

1. Identification

Product Identifier: Propane

Other means of Identification

Product code: UN1075

Recommended use: Portable Fuel

Recommended restrictions: None known

Manufacturer/Importer/Supplier/Distribution information:

Supplier: Uniweld Products, Inc.
Address: 2850 Ravenswood Road, Ft. Lauderdale, FL 33312, United States of America

Emergency: **For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

2. Hazard(s) identification

Physical hazards: Flammable gases, Category 1, Gases under pressure, Liquefied gas

Health hazards: Not classified

OSHA defined hazards: Not classified

Label elements



Signal word: Danger

Hazard statement: Extremely flammable gas. Contains gas under pressure, may explode if heated.

Precautionary statement

Prevention: Keep away from heat/sparks/open flames/hot surfaces-No Smoking.

Response: Leaking gas fire. Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Storage: Protect from sunlight. Store in a well-ventilated place.

Disposal: Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified(HNOC): May displace oxygen and cause rapid suffocation.

3. Composition/Information on ingredients

Mixtures

Chemical name:	CAS number:	%:
Propane	74-98-6	87.5-100
Ethane	74-84-0	0-7
Propylene	115-07-1	0-5
Butane	106-97-8	0-2.5



Additives

Chemical name:	CAS number:	%:
Ethyl Mercaptan	75-08-1	<0.005

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center immediately.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. If frostbite occurs, immerse involved area in warm water (between 100 °F/38 °C and 110 °F/43 °C, not exceeding 112 °F/44 °C). Keep immersed for 20 to 40 minutes. Seek medical assistance.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion: ingestion is not a typical route of exposure for gases or liquefied gases.

Most important symptoms/effects, acute and delayed: Exposure to rapidly expanding gas or vaporizing liquid may cause frost bite ("cold burn"). Very high exposure can cause suffocation from, lack of oxygen. May cause drowsiness or dizziness.

Indication of immediate medical attention and special treatment needed: Exposure may aggravate pre-existing respiratory disorders. Treat symptomatically.

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media: Dry chemical, CO₂, water spray, fog, or foam.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions: Move container from fire area if it can be done without risk.

Do not extinguish fires unless gas flow can be stopped safely, explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shut off. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

General fire hazards: Extremely flammable gas.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary personnel away. Ensure adequate ventilation. In case of inadequate ventilation, use respiratory protection. Wear appropriate personal protective equipment (See Section 8).

Methods and materials for containment and cleaning up:

Ventilate well, stop flow of gas or liquid if possible. Immediately contact emergency personnel.

Environmental precautions:

Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sanitary, sewers, waterways and/or groundwater.

7. Handling and storage

Precautions for safe handling:

Eliminate all sources of ignition. Wear appropriate personal protective equipment (See Section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Do not breathe gas. Do not get in eyes, on skin, on clothing. Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities:

Store in accordance with local, regional, national, and international regulations. Secure cylinders in an upright position at all times, close all valves when not in use. Store in a cool, dry, well-ventilated place. Keep container tightly closed and sealed until ready for use. Protect the cylinders from damage.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Propane (CAS 74-98-6)	PEL	1800 mg/m ³ 1000 ppm
Additives	Type	Value
Ethyl Mercaptan (CAS 75-08-1)	Ceiling	25 mg/m ³ 10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Propylene (CAS 115-07-1)	TWA	500 ppm
Additives	Type	Value
Ethyl Mercaptan (CAS 75-08-1)	TWA	0.5 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m ³ 800 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m ³ 1000 ppm
Additives	Type	Value
Ethyl Mercaptan (CAS 75-08-1)	Ceiling	1.3 mg/m ³ 0.5 ppm

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Provide adequate ventilation and minimize the risk of inhalation of gas. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear approved safety glasses or goggles.

Skin protection

Hand protection: Wear appropriate chemical resistant gloves.

Other: Wear protective clothing appropriate for the risk of exposure.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards: Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.

9. Physical and chemical properties

Appearance: Colorless gas.
Physical state: Gas.
Form: Compressed liquefied gas.
Color: Colorless.
Odor: Rotten egg.
Odor threshold: Not available.
pH: Not applicable.
Melting point/freezing point: -306.4 °F (-188 °C)
Initial boiling point and boiling range: -43.6 °F (-42 °C) 14.7 psia
Flash point: -155.2 °F (-104 °C)
Evaporation rate: Not applicable.
Flammability (solid, gas): Extremely flammable gas.

Upper/lower flammability or explosive limits

Explosive limit-lower(%): 2.15%

Explosive limit- upper (%): 9.6%

Vapor pressure: 127 PSIG (21 °C/70 °F)

Vapor density: Not available.

Relative density: 0.504 (liquid) 1.5 (vapor) (air=1) @ 15 °C/60 °F

Solubility (ies)

Solubility (water): Slightly soluble in water

Partition coefficient (n-octanol/water): 1.77

Auto-ignition temperature: 809.6 °F (432 °C)

Decomposition temperature: Not available.

Viscosity: Not available.

Other information

Molecular weight 45g/mol

percent volatile 100%

10. Stability and reactivity

Reactivity: React violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchloates causing fire and explosion hazard.

Chemical stability: Stable under normal temperature conditions and recommended use.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Strong oxidizing agents. Strong acids. Halogens.

Hazardous decomposition products: Carbon oxides. Hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Ingestion: Not likely, due to the form of the product.

Inhalation: High concentrations: Suffocation (asphyxiant) hazard-if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.

Skin contact: Contact with liquefied gas may cause frostbite.

Eye contact: Contact with liquefied gas may cause frostbite.

Symptoms related to the physical, chemical and toxicological characteristics: Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness.

Information on toxicological effects

Acute toxicity: High concentration: Suffocation (asphyxiant) hazard- if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels.

Components	Species	Test Results
Butane (CAS 106-97-8) Acute Inhalation LC50	Mouse Rat	680 mg/l, 2 Hours 658 mg/l, 4 Hours
Propane (CAS 74-98-6) Acute Inhalation LC50	Rat	>1442 mg/l, 15 Minutes
Propylene (CAS 115-07-1) Acute Inhalation LC50	Mouse Rat	680 mg/l, 2 Hours 658 mg/l, 4 Hours
Additives	Species	Test Results
Ethyl Mercaptan (CAS 75-08-1) Acute Dermal LD50	Rat	> 2000 mg/kg
Inhalation LC50	Mouse	4420 mg/l, 4 Hours
Oral LC50	Rat	682 mg/kg

Skin corrosion/irritation: Contact with liquefied gas might cause frostbites, in some cases with tissue damage.

Serious eye damage/eye irritation: Direct contact with liquefied gas may cause eye damage from frostbite.

Respiratory or skin sensitization

Respiratory sensitization: Not classified.

Skin sensitization: Not classified.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

IARC Monographs. Overall Evaluation or Carcinogenicity

Propylene (CAS 115-07-1) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity: Not classified.

Specific target organ toxicity-single exposure: Not classified.

Specific target organ toxicity-repeated exposure: Not classified.

Aspiration hazard: Not classified.

12. Ecological information

Ecotoxicity: Not expected to be harmful to aquatic organisms.

Persistence and degradability: The product is readily biodegradable.

Bioaccumulative potential: The product is not expected to Bioaccumulate.

Partition coefficient n-octanol / water (log Kow):

Propane (CAS Mixture) 1.77

Butane (CAS 106-97-8) 2.89

Propane (CAS 74-98-6) 2.36

Propylene (CAS 115-07-1) 1.77

Mobility in soil: May evaporate quickly.

Mobility in general: May evaporate quickly.

Other adverse effects: None known.

13. Disposal considerations

Disposal instructions: Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations.

Hazardous waste code: D001: Waste flammable material with a flash point <140 °F

Waste from residues / unused products: Dispose of in accordance with local regulations.

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number:	UN1075
UN proper shipping name:	Petroleum Gases, Liquefied
Transport hazard class(es)	
Class:	2.1
Subsidiary risk:	-
Packing group:	Not applicable
Environmental hazards	
Marine pollutant	No
Special precautions for user:	Read safety instructions, SDS and emergency procedures before handling.
Special provisions:	19, T50
Packaging exceptions:	306
Packaging non bulk:	304
Packaging bulk:	314, 315

IATA

UN number:	UN1075
UN proper shipping name:	Petroleum Gases, Liquefied
Transport hazard class(es)	
Class:	2.1
Subsidiary risk:	-
Label(s):	2.1
Packing group:	Not applicable
Environmental hazards:	No.
ERG Code	10L
Special precautions for user:	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number:	UN1075
UN proper shipping name:	Petroleum Gases, Liquefied
Transport hazard class(es)	
Class:	2.1
Subsidiary risk:	-
Label(s):	2.1
Packing group:	Not applicable
Environmental hazards	
Marine Pollutants:	No
EmS:	F-D, S-U

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II or MARPOL 73/78 and the IBC Code This product is a compressed or liquefied gas and when transported in bulk is covered under IGC code.

15. Regulatory information

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910. 1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910. 1001-1050):
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Butane (CAS 106-97-8):	LISTED
Ethyl Mercaptan (CAS 75-08-1):	LISTED
Propane (CAS 74-98-6):	LISTED
Propylene (CAS 115-07-1):	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard-No
	Delayed Hazard-No
	Fire Hazard-Yes
	Pressure Hazard-Yes
	Reactivity Hazard-No

SARA 302 Extremely hazardous substance:

Not listed

SARA 311/312 Hazardous chemical: Yes
Chemical**SARA 313 (TRI reporting)**

Chemical name:	CAS number:	% by wt.
Propylene	115-07-1	0-5

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:**

Not Regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Butane (CAS 106-97-8)
 Ethyl Mercaptan (CAS 75-08-1)
 Propane (CAS 74-98-6)
 Propylene (CAS 115-07-1)

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130): Hazardous substance**Safe Drinking Water Act (SDWA):** Not regulated.**US state regulations:****US Massachusetts RTK-Substance List:**

Butane (CAS 106-97-8)
 Ethyl Mercaptan (CAS 75-08-1)
 Propane (CAS 74-98-6)
 Propylene (CAS 115-07-1)

US New Jersey Worker and Community Right-to-Know Act:

Butane (CAS 106-97-8)
 Ethyl Mercaptan (CAS 75-08-1)
 Propane (CAS 74-98-6)
 Propylene (CAS 115-07-1)

US Pennsylvania Worker and Community Right-to-Know Law:

Butane (CAS 106-97-8)
 Ethyl Mercaptan (CAS 75-08-1)
 Propane (CAS 74-98-6)
 Propylene (CAS 115-07-1)

US Rhode Island RTK:

Butane (CAS 106-97-8)
 Ethyl Mercaptan (CAS 75-08-1)
 Propane (CAS 74-98-6)
 Propylene (CAS 115-07-1)

US California Proposition 65**US-California Proposition 65-Carcinogens & Reproductive Toxicity (CRT):****Listed substance:** Not listed.**International Inventories**

Country(s) or region	Inventory name	On inventory(yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substance List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemical List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date: 1-May-2015

Version #: 01

NFPA Ratings



Disclaimer:

All information in this Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regards to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.