

Emergency Contact: PERS (for spills, leaks, or accidents, only)
Emergency (24 hours) Phone: (800) 633-8253

Section 1 - IDENTIFICATION

Distributor/Supplier:

Ted Johnson Propane Company
5140 Elton Street
Baldwin Park, CA 91706
800-576-4LPG

For General Information, Call:
(626) 337-1222

Product: Propane (odorized)

Synonyms: Dimethylmethane, LP-Gas, Liquid Petroleum Gas

Product Use: Industrial Applications

Restriction on Use: None known

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Flammable gas, Category 1

Gas under pressure, Liquefied Gas

Specific Target Organ Toxicity – Single Exposure, Category 3 (central nervous system)

GHS LABEL ELEMENTS Symbol(s)**Signal Word**

DANGER

Hazard Statement(s) Extremely flammable gas

Contains gas under pressure; may explode if heated

May cause drowsiness and dizziness

Section 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Component: Propane

Chemical Formula: C₃H₈

CAS Number: 74-98-6

Composition and Percentage of Each (If Applicable)

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Concentration*</u>	<u>Exposure Limits/health Hazards</u>
Propane	74-98-6	92 - 100%	simple asphyxiant(ACGIH) 1000 ppm 8-hour TWA

Ethane	74-84-0	0 - 7%	simple asphyxiant(ACGIH)
Iso-Butane	75-28-5	0 - 2.5%	No Data
Propylene	115-07-01	0 - 1.5%	simple asphyxiant(ACGIH)
N- Butane	106-97-8	0 - 1%	(ACGIH)800ppm 8-hour TWA(ACGIH)
Ethyl Mercaptan	75-08-1	0 - 50ppm	0.5ppm 8-hourTWA(ACGIH)

Values do not reflect absolute minimums and maximums; these values are typical which may vary from time to time.

Section 4 – FIRST AID MEASURES

First Aid - Inhalation:

Immediately move personnel to an area with fresh air. For respiratory distress, give air, oxygen or administer CPR if necessary. Obtain medical attention if breathing difficulties continue.

First Aid - Skin:

Frozen tissue should be flooded or soaked with warm water (105-115 F; 41-46). DO NOT USE HOT WATER! Cryogenic burns, which result in blistering or deeper tissue freezing, should be promptly seen by a physician. If warm water is not available, gently wrap affected parts in blankets. Seek immediate medical attention.

First Aid - Eyes:

Vapors are not expected to present an eye irritation hazard. If contacted by liquid/solid, immediately flush eye(s) gently with warm water for at least 15 minutes. Seek medical attention if pain or redness persists.

First Aid - Ingestion:

Induce vomiting with warm water (one quart), only if patient is conscious. Immediately obtain medical attention.

Symptoms: Immediate

Frostbite, suffocation, central nervous system effects.

Note to Physicians

For inhalation, consider oxygen. Symptoms may not appear immediately.

Section 5 –FIRE FIGHTING MEASURES

FLASH POINT: -156°F (-104°C)

AUTOIGNITION: 842°F (432°C)

IGNITION TEMPERATURE IN AIR: 920°F to 1120°F (493°C to 549°C)

FLAMMABLE LIMITS IN AIR (% by volume): Lower: 2.15% Upper: 9.6%

EXTINGUISHING MEDIA: Dry chemical, CO₂, water spray or fog for surrounding area. Do not attempt to extinguish fire until propane source is isolated.

Specific Hazards Arising from the Chemical

Severe fire hazard. Severe explosion hazard. Gas/air mixtures are explosive. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

Protective Equipment and Precautions for Firefighters

Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Stop leak if possible without personal risk. Let burn unless leak can be stopped immediately. For smaller tanks or cylinders, extinguish and isolate from other flammables. Evacuation radius: 800 meters (1/2 mile). Stop flow of gas.

Hazardous Combustion Products

Combustion: oxides of carbon

Section 6 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Evacuate all unnecessary personnel. Stay upwind. Eliminate all sources of ignition.

Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental Precautions

Prevent spreading of vapors through sewers, ventilation systems & confined areas.

Methods for Containment

Control release of gas without risk.

Cleanup Methods

Isolate area until gas has dispersed.

Section 7 – HANDLING AND STORAGE

Handling

Avoid contact with skin & eyes, wear PPE. All equipment used when handling the product must be grounded. Wash hands before eating, drinking or smoking.

Storage

Store and use cylinders and tanks in well-ventilated areas away from heat and sources of ignition. No smoking near storage or use. Follow standard procedures for handling cylinders, tank loading/unloading – See NFPA58.

Incompatibilities combustible materials, oxidizing materials

Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation: Provide adequate ventilation to ensure propane does not reach flammable mixture.

Personal protective equipment



Eye / face protection

Wear approved safety glasses or goggles or face shield.

Hand Protection

Wear impervious gloves.

Skin protection

Wear protective clothing appropriate for the risk of exposure.

Respiratory protection

For excessive gas concentration an approved respirator must be worn.

General hygiene

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.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: @ 14.7 psia = -44° F (@1.00 atm.pressure = -42°C)

SPECIFIC GRAVITY OF VAPOR (Air = 1) at 60° F (15.56°C): 1.50

SPECIFIC GRAVITY OF LIQUID (Water = 1) at 60° F: 0.504

VAPOR PRESSURE: @ 70° F (20°C) = 127 psig; @ 105° F (45°C) = 210 psig; @ 130°F (55°C) = 287 psig

EXPANSION RATIO (From liquid to gas @ 14.7 psia): 1 to 270

SOLUBILITY IN WATER: Slight, 0.1 to 1.0%

APPEARANCE AND ODOR: A colorless and tasteless gas at normal temperature and pressure. An odorant (ethyl mercaptan) is added to provide a strong unpleasant odor. Should a propane-air mixture reach the lower limits of flammability, the ethyl mercaptan concentration will be approximately 0.5 ppm in air.

ODORANT WARNING: Odorant is added to aid in the detection of leaks. One common odorant is ethyl mercaptan, CAS No. 75-08-1. Odorant has a foul smell. The ability of people to detect odors varies widely. Also, the odor level can be reduced by certain chemical reactions with material in the propane system or when fugitive propane gas from underground leaks passes through certain soils. No odorant will be 100% effective in all circumstances. If the presence of the odorant is not obvious, notify Ted Johnson Propane immediately.

Section 10 – STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Containers may rupture or explode if exposed to heat.

Possibility of Hazardous Reactions

Will not polymerize.

Incompatible Materials

Combustible materials, oxidizers

Hazardous Decomposition

Combustion: oxides of carbon

Section 11 – TOXICOLOGICAL INFORMATION

Propane is non-toxic and is a simple asphyxiant. It has slight anesthetic properties. Higher concentrations

may cause dizziness.

IRRITANCY OF MATERIAL: None
REPRODUCTIVE EFFECTS: None
TERATOGENICITY: None

SENSITIZATION TO MATERIAL: None
MUTAGENICITY: None
SYNERGISTIC MATERIALS: None

Section 12 – ECOLOGICAL INFORMATION

No adverse ecological effects are expected. Propane does not contain any Class I or Class II ozone-depleting chemicals (40 CFR Part 82). Propane is not listed as a marine pollutant by DOT (49 CFR Part 171).

Section 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Do not attempt to dispose of residual or unused product in the container; return it to your supplier or contact Ted Johnson Propane for safe disposal. Residual product within a process system may be burned at a controlled rate if a suitable burning unit is available on site, and is done in accordance with federal, state and local regulations.

Section 14 – TRANSPORTATION INFORMATION

DOT SHIPPING NAME: Liquefied Petroleum Gas	SHIPPING LABEL (S): Flammable Gas
IDENTIFICATION NUMBER: UN 1075	PLACARD (WHEN REQUIRED): Flammable Gas
IMO SHIPPING NAME: Propane	SPECIAL SHIPPING INFORMATION: Container must be
IMO IDENTIFICATION NUMBER: UN 1978	transported in a well-ventilated vehicle, secured, and in
HAZARD CLASS: 2.1 (Flammable Gas)	a position such that the pressure relief device is in
PRODUCT RQ: None	communication with the vapor space.

Section 15 – REGULATORY INFORMATION

Environmental Protection Agency (EPA)

Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) - 40 CFR Parts 117 and 302

Reportable Quantity (RQ): None

Superfund Amendment and Reauthorization Act (SARA)

- Sections 302/304: Relates to emergency planning on threshold planning quantities (TPQ) and release reporting based on reportable quantities (RQ) of EPA's extremely hazardous substances (40 CFR Part 355).

Extremely Hazardous Substances: None **Threshold Planning Quantity (TPQ):** None

- Sections 311/312: Relates to submission of material safety data sheets (MSDSs) and chemical inventory reporting with identification of EPA-defined hazard classes (40 CFR Part 370). The hazard classes for this product are:

IMMEDIATE: No **PRESSURE:** Yes **DELAYED:** No **REACTIVITY:** No **FLAMMABLE:** Yes

- Section 313: Relates to submission of annual reports of release of toxic chemicals that appear in 40 CFR Part 372. Propane does not require reporting under Section 313.

Toxic Substance Control Act (TSCA)

Propane is listed on the TSCA inventory.

Occupational Safety and Health

Administration (OSHA) The following 29 CFR Parts may apply to propane:

29 CFR 1910.110: *Storage and Handling of Liquefied Petroleum Gases*

29 CFR 1910.119: *Process Safety Management of Highly Hazardous Chemicals*

29 CFR 1910.1200: *Hazardous Communications*

Food and Drug Administration (FDA)

21 CFR 184.1655: Generally recognized as safe (GRAS) as a direct human food ingredient when used as a propellant, aerating agent and gas.

California Prop 65

Carcinogens & Reproductive Toxicity (CRT) Warning: Byproducts of the combustion of propane contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **California** requires all "persons in the course of doing business" whose products are sold in California to comply with Proposition 65 (Cal. Health and Safety Code Sections 25249.6 et seq). Accordingly, resellers of this product in California shall comply with Proposition 65, including the provision of any necessary warning for exposure to chemicals listed by the State of California:http://oehha.ca.gov/prop65/prop65_list/files/P65single111811.pdf

Section 16 – OTHER INFORMATION

NFPA Ratings: Health: 2 Fire: 4 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Disclaimer: This safety data sheet and the information it contains is offered to you in good faith as accurate. Ted Johnson Propane does not manufacture this product; Ted Johnson Propane is a supplier/distributor of this product that is produced by others. Such information is to the best of this company's knowledge, believed to be accurate and reliable as of the date indicated below. Ted Johnson Propane does not guarantee nor warrant its accuracy, completeness or reliability. It is the user's obligation/responsibility to evaluate this information and use it safely in compliance with all applicable laws and regulations.

Prepared by: Ted Johnson Propane

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