George PROPANE INC

SAFETY DATA SHEET: PROPANE

SECTION 1: IDENTIFICATION

Product: Propane

CAS Number: 74-98-6
Chemical Family: Aliphatic Hydrocarbon, Alkaline Series

Synonyms: Dimethyl Methane, LP-Gas, LPG, HD-5 Propane

George Propane Inc.
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Goshen, MA 01032

Company Contact: Mike George
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Emergency Contact For
Accidents, Spills, or Leaks
During Transportation Only: PERS (800) 633-8253

Recommended Use:
Restrictions on Use:

1. HAZARD(S) INDENTIFICATION

Skin corrosion/irritation
Eye damage/irritation
Simple asphyxiant
Flammable gas

DANGER

Causes severe skin burns and eye damage
Causes serious eye damage
May displace oxygen and cause rapid suffication
Extremely flammable gas

Prevention:
Wear protective gloves/protective clothing/eye protection
Keep away from heat/sparks/open flames/hot surfaces-No Smoking
Response:
IF ON SKIN: Liquid propane can cause freezing of tissue. Remove contaminated clothing. Immerse affected area in lukewarm water not exceeding 105 F. Keep immersed. Get prompt medical attention.
IF IN EYES: Liquid propane can cause freezing of tissue. Gently flush eyes with lukewarm water. Obtain medical attention immediately.
IF INHALED: Remove person to fresh air immediately.
Leaking gas fire: Do not extinguish unless leak can be stopped safely. Eliminate all sources of ignition if safe to do so.
Storage: Store in well-ventilated place.

3. COMPOSITION/INFORMATION ON IGREDIENTS

Component:	Propane
CAS Number:	74-98-6
	TWA 1000 ppm

Composition and TLV of Each (If Applicable)
>90 (LV) Propane (C3H8), CAS No. 74-98-6, simple asphyxiant (ACGIH), TWA 1000 ppm (OSHA)
<5 (LV) Propylene (C3H6), CAS No. 115-07-1, simple asphyxiant (ACGIH)
<5 (LV) Iso-Butane (C4H6), CAS No. 75-28-5, TWA 800 ppm (ACGIH) BUTANE)
Ethyl Mercaptan may be added as malodorant minimum 1 lb. to approximately 1.1 lbs. per 10,000 gallons of liquid propane (ANSI/NFPA–58-1982)

4. FIRST AID MEASURES

Route of Exposure – Inhalation
Exposure may produce rapid breathing, headache, dizziness, visual disturbances, muscular weakness, tremors, narcosis, unconsciousness, and death, depending on concentration and duration of exposure.

First Aid – Inhalation
Immediately move personnel to area of fresh air. For respiratory distress, give air, oxygen, or administer CPR (cardiopulmonary resuscitation), if necessary. Obtain medical attention if breathing difficulties continue.

Route of Exposure – Skin
This material is not expected to be absorbed through the skin. Non-irritating; but solid and liquid forms of this material and pressurized gas can cause freeze burns.

First Aid – Skin
Frozen tissues should be flooded or soaked with warm water. DO NOT USE HOT WATER. Cryogenic burns, which result in blistering or deeper tissue freezing, should be promptly seen by a physician.

Route of Exposure – Eyes
This gas is non-irritating; but direct contact with liquefied/pressurized gas or frost particles may produce severe and possibly permanent eye damage from freeze burns.

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

Route of Exposure – Ingestion
Solid and liquid forms of this material and the pressurized gas can cause freeze burns.

First Aid – Ingestion
Induce vomiting with warm water (one quart) only if patient is conscious. Immediately obtain medical attention.

Miscellaneous Toxicological Information
Inhalation may produce mild intoxication, drowsiness, or loss of coordination. High concentrations produce intoxication followed by loss of consciousness, asphyxiation, and death.

Health Conditions Aggravated by Exposure
Personnel with pre-existing chronic respiratory diseases should avoid exposure to this material.

Carcinogenicity
Propane is not listed by NTP, OSHA or IARC.

5. FIRE FIGHTING MEASURES

Flash Point: -156°F
Auto ignition: 742°F

Lower Explosive Limit (%): 2.3
Upper Explosive Limit (%): 9.5

Extinguishing Media
Water spray, dry chemical, C02, or Halon

Special Fire Fighting Instructions:
Evacuate the area. Stay upwind of vapors. Stop flow of gas. Use water to keep fire exposed containers and piping cool. Use water spray to disperse unignited gas. If ignition has occurred and no water is available, tank or piping metal may fail from overheating. Approach containers from sides, not from ends.

6. ACCIDENTAIL RELEASE MEASURES

Steps to be taken in the Event of Spills, Leaks, or Release
Eliminate all potential sources of ignition. Evacuate all non-essential personnel to an area upwind (at least ½ mile in all directions if tanks or tank cars in involved in fire). Stop source of release with non-sparking tools before putting out any fire. Ventilate enclosed areas to prevent formation of flammable or oxygen-deficient atmospheres. Water spray may be used to reduce vapors. Closed systems form white frost at the point of leak. Liquid spills will vaporize forming cold, dense vapor clouds that do not readily disperse. Avoid vapor cloud even with proper respiratory equipment.

Waste Disposal Methods
Releases are expected to cause only localized non-persistent environmental damage. Waste mixtures containing these gases should not be allowed to enter drains or sewers where there is danger of the vapors becoming ignited. When it becomes necessary to dispose of these gases, it is preferable to do so as a vapor. Unused product may be used as an auxiliary fuel or disposed by burning in a properly designed flare or incinerator. Venting of gas to the atmosphere should be avoided. Defective, empty, or partially used portable containers should be returned to the supplier and appropriate tags.

7. HANDLING & STORAGE

Storage & Handling Conditions
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, tanks, loading/unloading. See NFPA #58 and

API 2510. Fixed storage containers must be grounded and bonded during transfer of product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation
Local exhaust and general room ventilation may both be essential in work areas to prevent accumulation of explosive mixtures. If mechanical, both may be essential in work areas to prevent accumulation of explosive mixtures. If mechanical ventilation is used, electrical equipment must meet National Electrical Code requirements.

Eye Protection
Use chemical-type goggles and face shields when handling liquefied gases. Safety glasses and/or face shields are recommended when handling high-pressure cylinders and piping systems and whenever vapors are discharged.

Skin Protection
Prevent potential skin contact with cold liquid/solid/vapors. Use insulated, impervious plastic or neoprene-coated canvas gloves and protective gear (apron, face shield, etc.) to protect hands and other skin areas.

Respiratory Problems
For excessive gas concentrations, use only NIOSH/MSHA-approved, self-contained breathing apparatus.

Work/Hygienic Practices
Emergency eye wash fountains and safety showers for first aid treatment of potential freeze burns should be available in the vicinity of any significant exposure from compressed gas release. Personnel should not enter areas where the atmosphere is below 19.5% Vol. oxygen without special procedures/equipment. Respirator use should comply with OSHA 29 CFR 1910.134 or equivalent.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	-45/14.7 psia° F
Vapor Pressure:	188/psia@100°F
Specific Gravity:	.504/60°F
Solubility (H20):	<0.1%
Evaporation Rate:	Gas at normal ambient conditions
Freezing Point:	-305°F
Molecular Weight:	44

Appearance	**Odor**
Colorless Gas	Unpleasant odor caused by odorant.

10. STABILITY & REACTIVITY

Stability: Stable

Conditions to Avoid (Stability)
Strong acids, alkalines, and oxidizers such as chlorine and oxygen

Hazardous Decomposition Products
Combustion may produce carbon monoxide and other harmful substances. The chemical used as warning agent, ethyl mercaptan, may under certain conditions, such as when oxygen, water, iron oxide or other oxidizers are present in containers or piping react with oxidizers which can diminish its distinct smell.

Hazardous Polymerization: Not expected

11. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

14. TRANSPORT INFORMATION

DOT Shipping Name: Liquefied Petroleum Gas

Hazard Class: 2.1 (Flammable Gas)
DOT Identification Number: UN1075
DOT Shipping Label: Flammable Gas

15. REGULATORY INFORMATION

16. OTHER INFORMATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

This information relates only to the material designed and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of this company's knowledge believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitableness and completeness of such information for his own particular use.

3/10/98
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