

PROPANE "HD5" SAFETY DATA SHEET

June, 2024

SECTION 1 - IDENTIFICATION

Product name: Propane

Synonyms: LPG (Liquefied Petroleum Gas); LP-Gas

Recommended use: Heating fuel, motive fuel, industrial appliance

My Propane Buddy Inc.

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SECTION 2 - HAZARDS IDENTIFICATION

GHS Classification: Flammable Gas, Category 1

Gas under pressure - Liquefied compressed gas

Simple Asphxiant, Category 1

Label elements: Hazard Pictograms





Signal word: Danger

Hazard Statements: Extremely flammable gas.

Contains gas under pressure; may explode if headed. May displace oxygen and cause rapid suffocation.

Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces/other ignition sources.

No Smoking.

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Eliminate all ignition sources if safe to do so.

Store in a well ventilated space.

Other hazards: Vapours are heavier than air.

Vapours may travel across ground and reach remote ignition sources.

Storage: Store in a well ventilated place.

SECTION 3 - COMPOSITION/INFORMATION ON INGEDIANTS

Hazardous component (Chemical Name)	CAS No.	% concentration
Propane	74-98-6	90%-98%
Ethane	74-84-0	1%-5%
Propene (Propylene)	115-07-1	1%-5%
Butane	106-97-8	1%-2.5%
Isobutane	75-28-5	1%-2.5%
Methane	74-82-8	<1%
Ethanethoil	75-08-1	<0.01%

SECTION 4 - FIRST-AID MEASURES

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present

and easy to do so. If irritation persists, seek immediate medical attention.

Skin Contact: Liquefied gases may cause cryogenic burns or injury. Treat burned or frostbitten skin

by flushing or immersing the affected area(s) in lukewarm water. Do not rub affected area. Do not remove clothing that adheres due to freezing. After sensation has returned to the frostbitten skin, keep skin warm, dry, and clean. If blistering occurs,

apply a sterile dressing. Seek immediate medical attention.

Inhalation: If respiratory symptoms develop, move away from source of exposure and into fresh

air in a position comfortable for breathing. If breathing is difficult, oxygen or artificial respiration should be administered by qualified personnel. If symptoms persist, seek

medical attention.

Ingestion: This material is a gas under normal atmospheric conditions and ingestion is unlikely.

Important symptoms: Light hydrocarbon gases are simple asphyxiants and can cause anesthetic effects at

high concentrations. Symptoms of overexposure, which are reversible if exposure is stopped, can include shortness of breath, drowsiness, headaches, confusion, decreased coordination, visual disturbances and vomiting. Continued exposure can lead to hypoxia (inadequate oxygen), rapid breathing, cyanosis (bluish discoloration of

the skin), numbness of the extremities, unconsciousness and death.

SECTION 5 - FIREFIGHTING MEASURES

Suitable extinguishing media: Shut off supply, if possible. Move container from area, if it can be done without risk.

Water spray, foam, powder, carbon dioxide.

Unsuitable media: None known.

Specific hazards: Sustained fire impingement on a container may result in a Boiling Liquid Expanding

Vapour explosion. Prevented by cooling container with high volume of water.

Extremely flammable gas.

Products of combustion may include oxides of carbon and oxides of Sulphur.

Protection of firefighters: Do not extinguish unless leak can be stopped.

Contact with liquid may cause frostbite on exposed skin. Wear full firefighter turnout gear and respiratory protection.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Protection: Evacuate all non-essential personnel.

Approach from upwind.

Eliminate every possible source of ignition. Use special care to avoid static electric

discharges.

Pay attention to low-lying areas where vapour may accumulate.

Test atmosphere for flammable gas concentration before allowing reentry.

Containment and cleanup Stop leak if possible without risk.

Disperse vapour with water spray.

Eliminate all source of ignition, provide ventilation and allow to evaporate.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling: Keep away from heat, sparks, open flame, and hot surfaces. No Smoking.

Avoid contact with skin and eyes.

Pressurize container; do not puncture or burn, even after use.

Conditions for safe storage: Store in a well-ventilated space away from source of ignition.

Store away from incompatible materials including oxygen.

Do not store under or adjacent to emergency exit route or stairway.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters: Propane [CAS No. 74-98-6]

ACGIH: Asphyxia

OSHA: 1000 ppm (TWA), 1800 mg/m3 (TWA)

Ethyl mercaptan [CAS No. 75-08-1] ACGIH: 0.5 ppm (TWA); (2003)

OSHA: 10 ppm (C), 25 mg/m³ (C); 0.5 ppm (TWA) [Vacated]

TWA: Time-Weighted Average

C: Ceiling

Engineering controls: Use ventilation adequate to keep exposure (airborne level of dust, fume, vapour,

gas, etc.) below recommended exposure limits.

Personal Protective Equipment:









Eye/Face Protection: Wear safety glasses. Wear cold insulating face shield and eye protection.

Use equipment for eye protection that meets the standard referenced by CSA Standard

CAN/CSAZ94.3-92.

Hand Protection: Wear protective gloves. Wear cold insulating gloves when exposed to liquid. Consult

manufacturer specifications for further information.

Skin and Body Protection: Wear suitable protective clothing.

General information: Always observe good personal hygiene measures, such as washing hands after handling

the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping. Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure

appropriate selection, testing, and maintenance of equipment used to control exposure, such as personal protective equipment and local exhaust ventilation. Drain down system before equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or for subsequent recycle. Do not ingest. If swallowed then

seek immediate medical assistance.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid under pressure

Colour: Colourless

Odour: Mercaptan, skunky odor

Odour Threshold: Not Available

Physical State: Gas

pH: Not Available Melting Point / Freezing Point: $-186 \,^{\circ}\text{C} \, (-303 \,^{\circ}\text{F})$ Initial Boiling Point: $-42.2 \,^{\circ}\text{C} \, (-44 \,^{\circ}\text{F})$ Boiling Range: $-42 \,^{\circ}\text{C} \, (-43.6 \,^{\circ}\text{F})$

Flash Point: -104.4 °C (-155.92 °F) (Closed Cup)

Evaporation Rate: Not Available

Flammability (solid, gas): Extremely Flammable

Lower Flammability Limit: 2.1%
Upper Flammability Limit: 9.5%

Vapour Pressure: 767.952 kPa at 20 °C (68 °F)

Vapour Density: 1.6 (Air=1)

Relative Density: 0.505 (Water=1)

Solubilities: Insoluble in water

Partition Coefficient: nOctanol/Water: 2.3

Auto-ignition Temperature: 449.9 °C (841.8 °F)

Decomposition Temperature: Not Available Viscosity: Not Available

Percent Volatile, wt. %: 100

VOC content, wt. 5: Not Available

Density 0.5035 g/cm³

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: None. Product will not become self-reactive.

Chemical stability: Stable under normal conditions of use.

Potential hazardous reactions: No hazardous reaction is expected when handled and stored according to provisions.

Conditions to avoid: Heat, open flames, sparks, and flammable atmospheres. In certain circumstances

product can ignite due to static electricity.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition: Hazardous decomposition products are not expected to form during normal storage.

SECTION 11 - TOXICOLOGICAL INFORMATION

EFFECTS OF ACCUTE EXPOSURE

PRODUCT TOXICITY

Oral: Not Available.

Dermal: Not Available.

Inhalation: Not Available.

COMPONENT TOXICITY

Component	CAS No.	LD50 oral	LD50 dermal	LC50
Propane	74-98-6	Not Available	Not Available	Not Available
Ethyl Mercaptan	75-08-1	682 mg.kg (rat)	Not Available	2770 ppm (mouse) ; 4H

Likely Routes of Exposure: Eye contact, Skin contact, Inhalation

Target Organs: Skin, Eyes, Respiratory system, Blood, Liver, Kidneys, and Central nervous system.

SYMPTOMS (INCLUDING DELAYED AND IMMEDIATE EFFECTS)

Inhalation: May displace oxygen and cause rapid suffocation. Central nervous system depression

can occur if product is present in concentrations that will reduce the oxygen content

of air below 18% (vol). Symptoms may include headaches, lightheadedness,

drowsiness, disorientation, vomiting, and seizures.

Unconsciousness and death may occur with severe oxygen deprivation. May cause respiratory irritation. Signs/symptoms may include coughing, sneezing, nasal

discharge, headache, hoarseness, and nose and throat pain.

Eye: Contact with rapidly expanding or liquified gas may cause irritation and/or frostbite.

The pain after contact with liquid can quickly subside. Permanent eye damage or

blindness could result.

Skin: Contact with rapidly expanding or liquified gas may cause irritation and/or frostbite.

Symptoms of frostbite include change in skin colour to white or grayish-yellow. The

pain after contact with liquid can quickly subside.

Ingestion: Not a normal route of exposure.

Skin Sensitization: Not Available.

Respiratory Sensitization: Not Available.

MEDICAL CONDITIONS

Aggravated By Exposure: Not Available.

EFFECTS OF CHRONIC EXPOSURE (FROM SHORT AND LONG-TERM EXPOSURE)

Target Organs: Skin, Eyes, Respiratory System, Blood, Liver, Kidneys, and Central Nervous System.

Chronic Effects: Not Available.

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by

ACGIH, IARC, OSHA, or NTP.

Mutagenicity: Not Available.

Reproductive Effects: Not Available.

DEVELOPMENTAL EFFECTS

Teratongencity: Not Available.

Embryotoxicity Not Available.

Toxicologically Synergistic Materials: Not Available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: Gases readily evaporate and would not be expected to have significant adverse

environmental effects.

Persistence and degradability: The hydrocarbons are expected to be inherently biodegradable.

Biodegradability: Expected to be readily biodegradable. Oxidizes rapidly by photo-chemical reactions in

air.

Bioaccumulative potential: Not expected to bioaccumulate significantly.

Mobility in soil: None.

Mobility: Because of their extreme volatility, air is the only environmental compartment that

hydrocarbon gases will be found.

Other adverse effects: No data available.

Additional ecological effects: In view of the high rate of loss from solution, the product is unlikely to post a

significant hazard to aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: The material is a gas and is not normally managed as a waste. Disposal should be in

accordance with applicable regulations. If necessary, dispose by controlled

combustion in purpose-designed equipment.

Additional information: Handle empty containers with care because residual vapours are flammable.

SECTION 14 - TRANSPORT INFORMATION

Canada Transportation of Dangerous Goods

Proper Shipping Name: UN1075, Petroleum Gases, Liquidied, 2.1

Class: 2.1

UN Number: UN1075

Packing Group: None.



Label Code:

SECTION 15 - REGULATORY INFORMATION

Canada (DSL):

The components of this product are in compliance with the chemical notification

requirement of the NSN Regulations under CEPA, 1999.

WHMIS Classification: Class A - Compressed Gas

Class B1 - Flammable Gases

SECTION 16 - OTHER INFORMATION

Date of issue: June 24, 2024

Disclaimer:

The information contained in this document applies to this specific substance as supplied. It may not be valid for the substance if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.