Western Propane Service

MATERIAL SAFETY DATA SHEET

Commercial Grade Propane (Odorized)

24 HOUR EMERGENCY ASSISTANCE

PERS, INC.
Accidents Spills or Leaks Only
1-800-633-8253

COMPANY NAME

Western Propane Service
PO Box 1060
Santa Maria, CA 93456
(855) WPS-4YOU
www.westernpropane.com

California Poison Control System- 1-800-356-3219

SECTION I - IDENTIFICATION

PRODUCT: Odorized Propane

SYNONYM: Liquefied Petroleum Gas; LP-gas; LPG
Commercial Propane; HD5 Propane

CHEMICAL FAMILY: Paraffinic Hydrocarbon
Petroleum Gas

CHEMICAL FORMULA: C3H8

SECTION II - INGREDIENTS

MATERIAL	CAS NUMBER	PERCENT
ETHANE	74-84-0	0-5.0
PROPANE	74-98-6	87.5-100
PROPYLENE	115-07-1	0-10.0
N-PENTANE	109-66-0	0-2.5
ETHYL MERCAPTAN	75-08-01	16-25ppm

SECTION III - PHYSICAL DATA

BOILING POINT:	@14.7 PSIA = -44*F
VAPOR PRESSURE:	@70*F =127psig
SPECIFIC GRAVITY OF LIQUID:	(Water=1) at 60*F:0.504
EXPANSION RATIO:	(from liquid to gas@14.7psia):1 to 270
SOLUBILITY IN WATER:	Slight, 0.1 to 1.0%
APPEARANCE AND ODOR:	Colorless, odorless, in natural form mercaptan odorant added*

***ODORANT WARNING**

Odorant is added to aid in 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, certain chemical reactions with material in the propane system, or fugitive gas from underground leaks passing through certain soils, can reduce the odor level. No odorant will be 100% effective in all circumstances. If odorant appears to be weak, notify propane supplier immediately.

SECTION IV - REACTIVITY

STABILITY:	Stable under normal storage conditions
HAZARDOUS POLYMERIZATION:	Not expected to occur
INCOMPATIBLE MATERIALS:	Keep away from high heat, sparks, open flame, strong oxidizing agents.

HAZARDOUS DECOMPOSITION:	Combustion may produce carbon monoxide and other harmful substances.

SECTION V- FIRE AND EXPLOSION DATA

FLASH POINT:	-156 F. (estimated)
AUTO IGNITION TEMPERATURE:	842 F.
FLAMMABILITY LIMITS:	LOWER 2.1% UPPER 9.5%
EXTINGUISHING Media:	Dry chemical, water spray, foam, C02

FIRE FIGHTING PROCEDURES:

Evacuate area. Shut off source of gas, if possible. Notify Fire Department. Remain up-wind of vapors. Allow only trained, properly protected personnel in area. Shut off source of gas , if possible. Allow fire to burn itself out after gas flow is shut off. If gas flow cannot be shut off, do not extinguish fire. Allow fire to burn itself out using high volume water supply to cool heat-exposed pressure containers and nearby equipment. Approach a flame enveloped container from the side, never the head ends. Use extreme caution when applying water to a container which has been exposed to heat or flame for more than a short time. For uncontrollable fires and when flame is impinging on container, withdraw all personnel and evacuate vicinity immediately.

USUAL FIRE & EXPLOSION HAZARDS:

Firefighters should wear self-contained breathing apparatus in the positive pressure mode with full face piece. when there is a possibility of exposure to smoke, fumes or hazardous decomposition products. Uncontrolled vapors spread rapidly, are heavier than air and are extremely flammable.

SECTION VI - OCCUPATIONAL EXPOSURE LIMITS

ACGIH (American conference of Governmental Industrial Hygienists) List as a simple Asphyxiate.
OSHA (Occupational Safety and Health Administration) TWA 1000 PPM.

SECTION VII - HEALTH INFORMATION

INHALATION:	Exposure may produce rapid breathing, headache, dizziness, disturbance, muscular weakness, tremors, narcosis, unconsciousness, and death, depending on duration and concentration of exposure.
EYE CONTACT:	This gas is non-irritating, but direct contact with liquefied, pressurized gas or frost particles may produce severe and possible permanent eye damage from freeze burns.
SKIN CONTACT:	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.
INGESTION:	Solid and liquid forms of this material and the pressurized gas can cause freeze burns.
SPECIAL EFFECTS:	Personnel with pre-existing chronic respiratory diseases should avoid exposure to this material.

SECTION VIII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION:	Immediately move personnel to fresh air. For respiratory distress, give air, oxygen, or administer CPR (cardiopulmonary resuscitation), if necessary. Obtain medical attention if breathing difficulties continue.
EYE CONTACT:	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.
INGESTION:	Induce vomiting with warm water (qt.) only if patient is conscious. Immediately

obtain medical attention.

SECTION IX - EMPLOYEE PROTECTION

RESPIRATORY: For excessive gas concentrations, use only NIOSH/MSHA self-contained breathing apparatus.

EYE: Use chemical-type goggles and face shield when handling liquefied gasses. Safety glasses and or a face shield are recommended when handling high pressure cylinders and piping system and whenever vapors are discharged.

SKIN: 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.

SECTION X - ENVIRONMENTAL PROTECTION

EFFECT: Avoid uncontrolled releases of this material. Liquid releases will have possible effect on plant and animal life. Large liquid release will quickly vaporize to produce a large vapor cloud. Vapor cloud is both a fire and asphyxiation hazard.

SPILL OR LEAK Product is extremely flammable. Vapor is heavier than air and may collect at lower levels. If there is a leak but no fire, do not ignite the escaped gas. Eliminate all ignition sources. Water spray can be used to help dilute vapor concentration in air. If possible, remove leaking container to safe area.

DISPOSAL: Disposal of gas in accordance with applicable laws and regulations. Vent vapor in safe location and insure that gas dissipates below the lower flammable limit. Controlled burning is preferred.

SECTION XI - SPECIAL PROTECTION

Store and use cylinders and tanks in a well ventilated area, away from heat and sources of ignition. No smoking near storage or use. Follow standard procedures for handling cylinders, tanks, loading/unloading. Fixed storage containers must be grounded and bonded during transfer of product.

Do not attempt to dispose of residual or unused product in the container. Return to supplier for safe disposal.

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)

NFPA 58 Standard for the Storage and Handling of Liquefied Petroleum Gases and OSHA 29 CFR 1910.10 require that all persons employed in handling LP-gases be trained in proper handling and operating procedures, which the employer shall document.

Extremely Flammable Liquid and Gas under pressure. May cause flash Fire. Contact with Liquid can cause cause freeze burns.

SECTION XII - REGULATORY INFORMATION

DOT	Hazard Class:	2.1 (FLAMMABLE GAS)
DOT	ID No. (UN/NA)	UN 1075
DOT	Shipping Name:	LIQUEFIED PETROLEUM GAS (ODORIZED)
IMO	Shipping Name:	Propane / Butane/ Flammable Gas
IMO	Hazard Class:	2.1
IMO	Label:	Flammable Gas
DOT	Emergency Response Guide:	115

SARA TITLE III INFORMATION: This product may contain over 1.0% propylene. This is subject to the

reporting Section 313.

HAZARD CATEGORY FOR SECTION 311/312 REPORTING: Immediate (acute) health hazard.
Fire hazard. Sudden release of pressure hazard.

TSCA STATUS: All components of this product are listed on the TSCA inventory.

The above information is based on the data of which we are aware and is believed to be correct as of the the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the data hereof may suggest notification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

NO WARRANTY OR MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSES, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE.

Toxicological Information

Propane is non-toxic and is a simple asphyxiant, however, it does have slight anesthetic properties and higher concentrations may cause dizziness.

IRRITANCY OF MATERIAL: None

SENSITIZATION TO MATERIAL: None

REPRODUCTIVE EFFECTS: None

SYNERGISTIC MATERIALS: None

TERATOGENICITY: None

MUTAGENICITY: None

EPA SARA 311/312 (Title III Hazard Categories)

Acute Health: Yes	Chronic Health: No	Fire Hazard: Yes
Pressure Hazard: Yes	Reactive Hazard: No	Flammable Hazard: Yes
Immediate Hazard: No	Delayed Hazard: No	

Western Propane Service

Propane Safety

Propane (Also called Liquified Petroleum Gas or LP-Gas) in its natural state is an odorless and colorless gaseous hydrocarbon (C3H8) obtained from natural gas and crude oil. Its vapor pressure is sufficiently low to permit compression and storage in a liquid state at moderate pressures and normal ambient temperatures. As a liquid under pressure in metal bottles or tanks, propane is easily handled and lends itself to a variety of fuel applications.

IF YOU ARE A PROPANE SUPPLIER OR AN EMPLOYER IN A BUSINESS THAT USES PROPANE, YOU ARE URGED TO PROVIDE YOUR CUSTOMERS OR EMPLOYEES ABOUT PROPANE HAZARDS AND SAFETY PROCEDURES.

PROPANE MUST BE HANDLED WITH EXTREME CAUTION. It is highly volatile and extremely flammable. Its vapors may explode in the presence of an ignition source and air, resulting in serious injury or death. Because propane vapors are heavier than air, they do not readily dissipate and may settle in low areas, thus providing no warning of their presence. Additionally, because propane displaces air, it can cause asphyxiation. Exposure to rapidly expanding or vaporizing liquid may cause frostbite (cold burn).

Because of the hazardous nature of propane, an odorant, or "stenching agent," is added to help detect a potentially hazardous leak. Refinery's use ethyl mercaptan as the odorant, adding it in a ratio of a minimum of 1.0 lb per 10,000 gallons of propane--aligned with the minimum of 1.0 lb per 10,000 gallons recommended by the National Fire Protection Association (NFPA)

The odorant ethyl mercaptan provides warning of leaking propane: however, ethyl mercaptan, or any other odorant, may not be effective in all cases all the time and must not be exclusively relied on as a safety measure. This fact is recognized by the NFPA, which states in its **Standard for the Storage and Handling of Liquified Petroleum Gases** that "no odorant will be completely effective as a warning agent in every circumstance."

1. Individual senses of smell can differ markedly and can be affected by age, sex or respiratory affictions such as colds or allergies.

2. A leak in an underground line or tank may be difficult to detect since soil can absorb the odorant.

3. The strength of the odorant may vary depending on the fullness of the tank. The mercaptan odor from a full tank may be less strong than that from a nearby depleted tank.

4. Because propane is heavier than air, it tends to settle and accumulate in low points and cavities-such as floors and basements- and will tend to remain in one room in the absence of air circulation. Thus, a person who is standing may not detect a major propane leak even in the same room.

It is therefore essential that propane be used and handled in strict adherence to the safety procedures established by appropriate Federal Agencies and Industry Organizations, such as the NFPA Codes, standards, and recommended practices regarding propane are contained in National Fire Codes published by the NFPA.

PROPOSITION 65
PUBLIC WARNING

The Safe Drinking Water and Toxic Enforcement Act 1986, commonly referred to as Proposition 65, requires the Governor to publish a list of chemicals "know to the State to cause cancer, birth defects, or reproductive harm." It also requires California businesses to warn the public quarterly of potential exposure to these chemicals which result from their operations.

Liquefied Petroleum Gas (propane) , in its original state, contains radon and benzene, chemicals "know to the State of California to cause cancer." It also contains toluene a chemical " know to the State of California to cause reproductive harm." The benzene and toluene are destroyed when Propane is burned. Radon does not burn but is released with the combustion by-products. Radon and propane combustion by-products can generally be removed through appliance vents and other exhaust systems. When propane is processed in the some dehydrators, benzene and toluene can be released to the environment.

A warning odorant is added to propane so that leaks of unburned gas can be quickly detected. If gas odor is detected, your supplier should be contacted promptly.