

MATERIAL SAFETY DATA SHEET

Section I

Supplier's Name: ARROWHEAD LP GAS Emergency Phone Number: 907-826-2944

Address: 1600 CRAIG-KLAWOCK HIGHWAY, CRAIG, ALASKA 99921

Chemical Name: LIQUEFIED PETROLEUM GAS OR PROPANE Formula: C3H4

CAS Registry No.: 74-98-6 Chemical Family: Hydrocarbon

WARNING: Danger! Extremely flammable. Compressed Gas Asphyxiant in high concentrations. Contact with liquid causes burns similar to frost bite. OSHA permissible exposure limit (PEL) 1000 PPM for an 8-hour work day.

HEALTH HAZARD 1
FIRE HAZARD 4
REACTIVITY 0

Appearance and Odor: Vapor and liquid are colorless. Product contains an odorant (unpleasant odor).

4 – Severe 1 – Slight
3 – Serious 0 – Minimal
2 – Moderate

Section II

HAZARDOUS INGREDIENTS

Hazardous Mixtures: Air with 2.15 to 9.60 percent propane

Section III

PHYSICAL DATA

Boiling Point: -44 degrees F Vapor Pressure (PSIG) at 100 degrees F: 205

Specific Gravity (H2O = 1) .51 Percent, Volatile by Volume (%): 100

Vapor Density (air=1) 1.52 Evaporation rate: Gas at normal ambient temperatures

Solubility in Water: Slightly

Section IV

FIRE AND EXPLOSION HAZARD DATA

Flash Point: -156 degrees F (CC) Classification: Flammable Gas UN1075

Flammable Limits - LFL: 2.15 UFL: 9.60 Extinguishing Media: Water spray-Class A-B-C or BC fire extinguisher.

Specific Fire Fighting Procedures: Stop flow of gas. Use water to keep fire exposed containers cool. Use water spray to disperse unignited gas or vapor. If ignition has occurred and no water available, tank metal may weaken from overheating. Evacuate area. If gas has not ignited, LP-gas liquid or vapor may be dispersed by water spray or flooding.

Decomposition Products under Fire Conditions: Fumes, smoke, carbon monoxide, aldehydes and other decomposition products, in the case of incomplete combustion or when used as an engine fuel.

“EMPTY” Container Warning: “Empty” containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. All containers should be disposed of in an environmentally safe manner and in accordance with government regulations.

Section V

HEALTH HAZARD

OSHA P.E.L.: 1000 PPM ACGIHTLV: 1000 PPM Effects of Overexposure: Inhalation - concentrations can lead to symptoms ranging from dizziness to anesthesia and respiratory arrest. Eyes: moderate irritation. Emergency & First Air Procedures: Inhalation - remove to fresh air. Guard against self injury. Apply artificial respiration if breathing has stopped.

Section VI**REACTIVITY DATA**

Stable: X Unstable: Hazardous Decomposition Products: None
Incompatibility (materials to avoid): Mixing with oxygen or air, except at burner
Hazardous Polymerization: May occur Will not occur X

Section VII**SPILL OR LEAK PROCEDURES**

Steps to be taken in case material is released: Keep public away. Shut off supply of gas. Eliminate sources of ignition. Ventilate the area. Disperse with water spray. Contact between skin and these gases in liquid form can cause freezing of tissue causing injury similar to thermal burn.

Water Disposal Method: Controlled burning. Contact supplier.

Section VIII**SPECIAL PROTECTION INFORMATION**

Respiratory Protection: Stay out of gas or vapor (because of fire hazard). Ventilation: Explosion-proof motors and keep sources of ignition at safe distances. Personal Protective Equipment and Apparel: Gloves resistant to the actions of LP-gases, Goggles for protection against accidental release of pressurized products.

Section IX**SPECIAL PRECAUTIONS**

Precautions to be taken when handling and storing: Keep containers away from heat sources and store in upright position. Containers should not be dropped. Keep container valve closed when not in use. Other Precautions: Install protective caps and plug container service valve when not connected for use.

Section X**TOXICOLOGICAL INFORMATION**

OSHA Carcinogen classification (29 CFR 1910) not listed/applicable X

U.S. Department of Health (21CFR 184.1655): Generally recognized as safe (GRAS) as a direct human food ingredient when used as a propellant, aerating agent and gas as defined in Section 170.3(o)(25).

Section XI**DOT LABELING INFORMATION (49 CFR 100-199)**

Proper shipping name: Liquefied Petroleum Gas Identification No.: UN1075
Hazardous Classification: Flammable Gas Label(s) Required: Flammable Gas

Section XII**ISSUE INFORMATION**

Issue Date: October 16, 1996

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