



AIRCO

Minneapolis Oxygen Co.

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MINNEAPOLIS, MINNESOTA 55412

Material Safety Data Sheet

LIQUEFIED PETROLEUM GAS WITH METHYL ACETYLENE-PROPADIENE

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Rev. Dat
07/24/89

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SECTION #1 - IDENTIFICATION

Product: LIQUEFIED PETROLEUM GAS WITH METHYL ACETYLENE-PROPADIENE

CAS Number: Not Established
Product Code: MSDS CODE G-118
Chemical Family: Gas Mixture

Synonyms: G-118
LPG - MAPP MIXTURE
MAPP - LPG MIXTURE
METHYL ACETYLENE-PROPADIENE (MAPP) MIXTURE WITH LPG

Hazard Rating - Health: 1 Slight
- Fire: 4 Extreme
- Reactivity: 1 Slight

Special Hazards: Highly flammable gas!

SECTION #2 - CHEMICAL COMPONENTS

Component: LIQUEFIED PETROLEUM GAS
CAS Number: 68476-85-7 Percent of Mixture: 56.0000
ACGIH TLV-TWA: 1000 ppm
OSHA PEL-TWA: 1000 ppm (Final)
IDLH: 19,000 ppm

Component: METHYL ACETYLENE - PROPADIENE
CAS Number: 56960-91-9 Percent of Mixture: 44.0000
ACGIH TLV-TWA: 1000 ppm OSHA PEL-TWA: 1000 ppm (Trans.)
ACGIH TLV-STEL: 1250 ppm OSHA PEL-TWA: 1000 ppm (Final)
IDLH: 20.000 ppm OSHA PEL-STEL: 1250 ppm (Final)

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SECTION #3 - PHYSICAL DATA

Boiling Point: -54 to -10°F
Melting Point: -184°F
Vapor Pressure: 97 psig @ 70°F
Specific Gravity: 0.571 (liquid)
Packing Density: 4.68 lbs/gal @ 60°F
Solubility (H₂O): slight
Percent Volatiles: 100

Appearance

A colorless gas.

Odor

A characteristic, unpleasant odor

SECTION #4 - FIRE FIGHTING & EXPLOSION DATA

Flash Point: -144°F Closed Cup
Autoignition: 850°F

Lower Explosive Limit (%): 3.0
Upper Explosive Limit (%): 11.0

Fire and Explosion Hazards

This gas is heavier than air and may travel a considerable distance to an ignition source. May burn with an almost invisible flame in bright light.

Electrical Classification: Class I, Group Not Specified

Extinguishing Media

Water fog, dry chemical foam

Special Fire Fighting Instructions

Do not extinguish. Keep cylinder cool with water fog. If flame is extinguished, remove all sources of ignition and allow contents to vent. Increase ventilation to prevent flammable mixture formation.

SECTION #5 - EXPOSURE and EFFECTS - INHALATIONRoutes of Exposure - Inhalation

This gas mixture is a central nervous system depressant and irritant. Inhalation of low concentrations may cause excitement and disorientation. In

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SECTION #5 - EXPOSURE and EFFECTS - INHALATION Continued...

Routes of Exposure - Inhalation

higher concentrations, this mixture may act as an asphyxiant so as to exclude an adequate supply of oxygen to the lungs, causing unconsciousness and possibly death.

First Aid - Inhalation

PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, given mouth-to-mouth resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

SECTION #5 - EXPOSURE and EFFECTS - SKIN

Routes of Exposure - Skin

Contact with liquid will cause frostbite or irritation.

First Aid - Skin

Remove contaminated clothing and flush affected area with lukewarm water. DO NOT USE HOT WATER.

SECTION #5 - EXPOSURE and EFFECTS - EYES

Routes of Exposure - Eyes

Contact with liquid may cause frostbite, irritation or blindness.

First Aid - Eyes

Never introduce oil or ointment into the eyes without medical advice! In case of freezing or cryogenic "burns" by rapidly evaporating liquid, DO NOT WASH THE EYES WITH HOT OR EVEN TEPID WATER! Remove victim from the source of contamination. Open eyelids wide to allow liquid to evaporate. If pain is present, refer the victim to an ophthalmologist for further treatment and follow up. If the victim cannot tolerate light, protect eyes with a light bandage or handkerchief.

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SECTION #5 - EXPOSURE and EFFECTS - INGESTIONRoutes of Exposure - Ingestion

Ingestion is unlikely. The effects of ingestion are unknown, however minimal health effects are anticipated. Consult a physician for treatment or contact the local poison control center.

First Aid - Ingestion

Keep victim calm and warm. Notify physician and inform of nature of material, the state of the victim and any observed signs or symptoms.

SECTION #5 - MISCELLANEOUS TOXICOLOGICAL INFORMATION

Carcinogenicity -- NTP: No IARC: No NTP: No

SECTION #6 - REACTIVITY & POLYMERIZATION

Stability: Stable

Conditions to Avoid (Stability)

High temperatures. Product will start to decompose at 815 °F.

Incompatible Materials

Natural rubber, copper alloys above 65% copper, silver, mercury, halogens, acids, metallic sodium, potassium, potassium permanganate.

Hazardous Decomposition Products

Produces acetylides when in contact with silver, magnesium, or copper alloys above 65% copper.

Conditions to Avoid (Polymerization)

None

Hazardous Polymerization: Will Not Occur

SECTION #7 - SPILL, LEAK, & DISPOSAL PROCEDURES

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SECTION #7 - SPILL, LEAK, & DISPOSAL PROCEDURES Continued...Steps to be Taken in The Event of Spills, Leaks, or Release

Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs. If leak is in container or container valve, contact CHEMTREC for emergency assistance or your closest Airco location.

WARNING: Any leaks of MAPP present great danger of explosion or fire. Keep all sources of ignition away.

Waste Disposal Methods

Do not attempt to dispose of residual or unused quantities. Return in the shipping container PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to Airco for proper disposal.

SARA Hazard Classes: Acute Health Hazard
Fire Hazard

SECTION #8 - SPECIAL PROTECTIVE MEASURESVentilation

Provide local exhaust or mechanical ventilation if welding or cutting in confined areas.

If this gas is handled routinely where the potential for leaks exists, all electrical equipment must be rated for use in potentially flammable atmospheres. Consult the National Electrical Code for details.

Eye Protection

Safety glasses with filter lenses, shade #4 or darker.

Skin Protection

Leather gloves and apron when welding, cutting or brazing.

Respiratory Protection

Respiratory protection is not normally required. Do not enter area of high MAPP concentration until first purging with inert gas and then ventilating with air.

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SECTION #9 - SPECIAL PRECAUTIONS - STORAGE & HANDLINGStorage & Handling Conditions

Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure regulator when connecting cylinder to lower pressure (<250 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder.

Protect cylinders from physical damage. Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 125°F. Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first-in-first-out" inventory system to prevent full cylinders from being stored for excessive periods of time. Post "NO SMOKING OR OPEN FLAMES" signs in the storage or use area. There should be no sources of ignition in the storage or use area.

This fuel gas should not be handled or used in metals which form acetylides, such as copper, silver, magnesium or their alloys.

For additional recommendations consult Compressed Gas Association Pamphlet P-1.

Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

SECTION #10 - SHIPPING INFORMATION

Proper Shipping Name: Liquefied Petroleum Gas/Methyl Acetylene-Propadiene

Hazard Class: Flammable Gas

DOT Identification Number: UN1075

DOT Shipping Label: Flammable Gas

SECTION #11 - MISC COMMENTS & REFERENCE DOCUMENTATION

Earth bond and ground all lines and equipment associated with the fuel gas system. Electrical equipment should be non-sparking and explosion proof.

Compressed gas cylinders should not be refilled except by qualified producers of compressed gases. Shipments of a compressed gas cylinder, which has not been filled by the owner or with his (written) consent, is in violation of

M a t e r i a l S a f e t y D a t a S h e e t

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SECTION #11 - MISC COMMENTS & REFERENCE DOCUMENTATION Continued...

Federal Law (49CFR).

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