

Material Safety Data Sheet

LIQUEFIED PETROLEUM GAS WITH METHYL ACETYLENE-PROPADIENE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Airco Gases, a Division of The BOC Group, Inc.
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Murray Hill, NJ 07974

TELEPHONE NUMBER: (908)464-8100

EMERGENCY TELEPHONE NUMBER

CHEMTREC (800)424-9300

PRODUCT NAME: LIQUEFIED PETROLEUM GAS WITH METHYL ACETYLENE-PROPADIENE

CHEMICAL FAMILY: Gas Mixture

MSDS IDENTIFICATION CODE/NUMBER: G-118

MAPP Gas

SYNONYMS: LPG - MAPP(R) MIXTURE

MAPP(R) - LPG MIXTURE

METHYL ACETYLENE-PROPADIENE (MAPP(R)) MIXTURE WITH LPG

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	EXPOSURE LIMITS	CONCENTRATION PERCENT BY WEIGHT
Liquefied Petroleum Gas CAS NUMBER: 68476-85-7	ACGIH TLV-TWA 1,000 ppm OSHA FINAL PEL-TWA 1,000 ppm IDLH: 19,000 ppm	56.0
Methyl Acetylene - Propadiene CAS NUMBER: 56960-91-9	ACGIH TLV-TWA: 1000 ppm ACGIH TLV-STEL: 1250 ppm IDLH: 20,000 ppm OSHA PEL-TWA: 1000 ppm (Trans.) OSHA PEL-TWA: 1000 ppm (Final) OSHA PEL-STEL: 1250 ppm (Final)	44.0

3. HAZARDS IDENTIFICATION

No Data Available

4. FIRST AID MEASURES

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.

SKIN

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

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.

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4. FIRST AID MEASURES - Continued

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.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

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

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.

6. ACCIDENTAL RELEASE MEASURES

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.

7. HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS

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.

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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7. HANDLING AND STORAGE - Continued

HANDLING AND STORAGE PRECAUTIONS - Continued

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

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/FACE 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

A colorless gas.

ODOR

A characteristic, unpleasant odor

BASIC PHYSICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

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.

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10. STABILITY AND REACTIVITY - Continued

HAZARDOUS DECOMPOSITION PRODUCTS

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

CONDITIONS TO AVOID (POLYMERIZATION)

None

HAZARDOUS POLYMERIZATION: Will Not Occur

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS

Contact with liquid may cause frostbite, irritation or blindness.

SKIN EFFECTS

Contact with liquid will cause frostbite or irritation.

ACUTE ORAL EFFECTS

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.

ACUTE INHALATION EFFECTS

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

MISCELLANEOUS TOXICOLOGICAL INFORMATION

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

12. ECOLOGICAL INFORMATION

No Data Available

13. DISPOSAL CONSIDERATIONS

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.

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: Liquefied Petroleum Gas/Methyl Acetylene-Propadiene

HAZARD CLASS: Flammable Gas

DOT IDENTIFICATION NUMBER: UN1075

DOT SHIPPING LABEL: Flammable Gas

15. REGULATORY INFORMATION

SARA TITLE III NOTIFICATIONS AND INFORMATION

SARA TITLE III - HAZARD CLASSES: Acute Health Hazard
Fire Hazard

16. OTHER INFORMATION

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16. OTHER INFORMATION - Continued

Hazard Rating - HEALTH: 1 Slight
- FIRE: 4 Extreme
- REACTIVITY: 1 Slight

SPECIAL HAZARDS: Highly flammable gas!

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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 Federal Law (49CFR).

September 23, 1992 revision updated DOT shipping information and displayed registered trademarks for the MAPP component.

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