ALPHAGAZ

DIVISION OF LIQUID AIR CORPORATION

Material Safety Data Sheet

(These data are prepared for product supplied in DOT 39 nonreusable cylinders.)

	PRODUCT NAME: 10 PPM-2.5% Methane in Air	
	TELEPHONE (510) 977-6500 EMERGENCY RESPONSE INFORMATION ON PAGE 2	
LIQUID AIR CORPORATION ALPHAGAZ DIVISION California Plaza, Suite 350 2121 N. California Blvd. Walnut Creek, California 94596	TRADE NAME AND SYNONYMS: 10 PPM-2.5% Methane in Air	CAS NUMBER: CH_4 = 74-82-8; Air = N/A
	CHEMICAL NAME AND SYNONYMS: See Page 4	NFPA 704 NUMBER (HPH): 0 0 0
ISSUE DATE AND REVISIONS: JANUARY 1, 1992 CORPORATE SAFETY DEPT.	FORMULA: See Page 4 — MOLECULAR WEIGHT: See Page 4	CHEMICAL FAMILY: Gas Mixture

HEALTH HAZARD DATA

TIME WEIGHTED AVERAGE EXPOSURE LIMIT

The components in these mixtures are nontoxic and no TWA is listed for them by ACGIH (1991-1992) or OSHA (1989).

SYMPTOMS OF EXPOSURE

These mixtures should be considered similar to air and would therefore cause no symptoms of exposure.

TOXICOLOGICAL PROPERTIES

See Symptoms of Exposure, above.

Neither methane or air are listed in the IARC, NTP or by OSHA as a carcinogen or potential carcinogen.

Listed as Carcinogen or Potential Carcinogen	National Toxicology Program	Yes ☐ No ☒	I.A.R.C. Monographs	Yes ☐ No ☒	OSHA	Yes ☐ No ☒

RECOMMENDED FIRST AID TREATMENT

See Symptoms of Exposure, above.

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES
None

PHYSICAL DATA

BOILING POINT CH_4 = -258.6°F (-161.4°C) Air = -317.9°F (-194.2°C)	LIQUID DENSITY AT BOILING POINT See Page 4
VAPOR PRESSURE See Page 4	GAS DENSITY AT 70°F 1 atm .0741-.0749 lb/ft^3 (1.187-1.200 kg/m^3)
SOLUBILITY IN WATER Very slightly	FREEZING POINT CH_4 = -296.5°F (-182.5°C) Air is a mixture
APPEARANCE AND ODOR Colorless, odorless gas. Specific Gravity (Air=1) @ 70°F (21.1°C) = 0.99-1.0	

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED) N/A	AUTO IGNITION TEMPERATURE N/A	FLAMMABLE LIMITS % BY VOLUME N/A
EXTINGUISHING MEDIA Nonflammable gas mixtures		ELECTRICAL CLASSIFICATION Nonhazardous
SPECIAL FIRE FIGHTING PROCEDURES If cylinders are involved in a fire, safely relocate or keep cool with water spray.		
UNUSUAL FIRE AND EXPLOSION HAZARDS These mixtures at high pressures will accelerate the burning of materials to a greater rate than they burn at atmospheric pressure.		

REACTIVITY DATA

STABILITY Unstable		CONDITIONS TO AVOID
Stable	X	N/A
INCOMPATIBILITY (Materials to avoid) None		
HAZARDOUS DECOMPOSITION PRODUCTS None		
HAZARDOUS POLYMERIZATION May Occur		CONDITIONS TO AVOID
Will Not Occur	X	N/A

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
N/A
WASTE DISPOSAL METHOD
N/A

EMERGENCY RESPONSE INFORMATION

IN CASE OF EMERGENCY INVOLVING THIS MATERIAL, CALL DAY OR NIGHT (800) 231-1366

OR CALL CHEMTREC AT (800) 424-9300

10 PPM-2.5% Methane in Air

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)	N/A		
VENTILATION: N/A	LOCAL EXHAUST: N/A	SPECIAL: N/A	
	MECHANICAL (Gen.): N/A	OTHER: N/A	
PROTECTIVE GLOVES	Any material		
EYE PROTECTION	Safety goggles or glasses		
OTHER PROTECTIVE EQUIPMENT	Safety shoes		

SPECIAL PRECAUTIONS*

SPECIAL LABELING INFORMATION

DOT Shipping Name: Compressed Gases, N.O.S. DOT Hazard Class: Division 2.2

DOT Shipping Label: Nonflammable Gas DOT I.D. No.: UN 1956

SPECIAL HANDLING RECOMMENDATIONS

Use a pressure reducing regulator when connecting cylinder to lower pressure (<500 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. Close valve after each use and when empty.

For additional handling recommendations consult L'Air Liquide's Encyclopedia de Gaz or Compressed Gas Association Pamphlet P-1.

SPECIAL STORAGE RECOMMENDATIONS

Protect cylinders from physical damage. Store in cool, dry, well ventialted area away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 125F (52C). Full and empty cylinders should be segregated. Use a "first in - first out" inventory system to prevent full cylinders being stored for excessive periods of time.

For additional storage recommendations consult L'Air Liquide's Encyclopedia de Gaz or Compressed Gas Association Pamphlet P-1.

SPECIAL PACKAGING RECOMMENDATIONS

These mixtures are noncorrosive and may be used with all materials of construction. Moisture causes metal oxides which are formed with air to be hydrated so that they increase in volume and lose their protective role (rust formation). Concentrations of SO_2, Cl_2, salt, etc. in the moisture enhances the rusting of metals in air.

OTHER RECOMMENDATIONS OR PRECAUTIONS

DOT 39 cylinders may not be reused or refilled (49CFR).

NEVER transport these cylinders in trunks of vehicles, enclosed vans, truck cabs or in passenger compartments. Transport them "contained" in open flatbed or open pick-up type vehicles.

Reporting under SARA, Title III, Section 313 not required.

*Various Government agencies (i.e. Department of Transportation, Occupational Safety and Health Administration, Food and Drug Administration and others) may have specific regulations concerning the transportation, handling, storage or use of this product which may not be contained herein. The customer or user of this product should

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ADDITIONAL DATA

CHEMICAL NAME AND SYNONYMS: 10 Molar PPM-2.5 Molar % Methane in Air

FORMULA: 10 Molar PPM-2.5 Molar % CH_4 in Air

MOLECULAR WEIGHT: CH_4 = 16.04
Air = 28.96

PHYSICAL DATA

LIQUID DENSITY AT BOILING POINT: CH_4 = 26.38 lb/ft^3 (422.6 kg/m^3)
Air = 54.6 lb/ft^3) (874 kg/m^3)

VAPOR PRESSURE: @ 70°F (21.1°C) = Above the critical temperature of methane. Air is a mixture.