



## MATERIAL SAFETY DATA SHEET

### SECTION 1 – PRODUCT AND COMPANY INFORMATION

**Chemical Name:** METHANE IN AIR  
**Chemical Formula:** CH<sub>4</sub> BALANCE AIR (N<sub>2</sub>, O<sub>2</sub>)  
**Chemical Family:** Inert Gas Mixture  
**Hazard Classification:** Compressed Gas, N.O.S., Non-Flammable Gas, UN1956, Green Label  
**Product Use Description:** Analytical Standard and General Laboratory Applications  
**Company:** MESA Specialty Gases & Equipment  
2427 South Anne Street  
Santa Ana, California 92704 USA  
**Phone Number for Information:** Infotrac  
**Emergency Contact:** 800-535-5053 (Int'l: 352-323-3500)

### SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS No.	CONCENTRATION	OSHA PEL	ACGIH TLV
Methane	74-82-8	1.0% to 4.99%	None	1000 ppm
Air (79.1% N <sub>2</sub> + 20.9% O <sub>2</sub> )	See below	Balance	None	None
Nitrogen	7727-37-9			
Oxygen	7782-44-7			

### SECTION 3 – HAZARD IDENTIFICATION

**Health Hazards (Acute and Chronic):** None

### SECTION 4 – FIRST AID MEASURES

**Emergency and First Aid Procedures:** Remove person to uncontaminated area. SCBA may be required to prevent asphyxiation of rescue workers. Keep warm and at rest. Lay victim face down with head and chest lower than hips to improve drainage from lungs. If breathing is labored, administer pure oxygen. If breathing has stopped, start artificial respiration. Get immediate medical attention for serious exposure.

## SECTION 5 – FIRE FIGHTING MEASURES

<b>Flash Point (Method Used):</b> None, Non-Flammable Gas	<b>Flammable Limits:</b> LEL: N/A UEL: N/A
Extinguishing Media: Use appropriate media for surrounding fire such as CO2 foam extinguishers	
<b>Special Fire Fighting Procedures:</b> Wear NIOSH/MSHA approved SCBA and full protective equipment. Stop flow of gas if this can be done safely. Use water spray to keep cylinders cool.	
<b>Unusual Fire and Explosion Hazards:</b> Gas cylinders may rupture violently when exposed to fire. Cylinder valve is equipped with a pressure relief device to safely vent the cylinder if it is exposed to elevated pressure in a fire.	

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>Steps to be Taken in Case Material is Released or Spilled:</b> Ventilate enclosed areas. Move leaking cylinder to fume hood or safe outdoor area.
<b>Other Precautions:</b> Use monitoring equipment if hazardous conditions are suspected or likely to occur.

## SECTION 7 – HANDLING AND STORAGE

<b>Precautions to be Taken in Handling or Storing:</b> Gas or liquefied gas are to be used with the appropriate pressure regulating control and high pressure equipment. Cylinders should be secured with mounting brackets away from heavily traveled areas. Keep cylinder in dry, cool, well ventilated area away from heat, flame, sparks or corrosive chemicals. Cylinders should be moved by suitable hand trucks.
<b>Other Precautions:</b> Use monitoring equipment if hazardous conditions are suspected or likely to occur.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Respiratory Protection (Specify Type):</b> Use self-contained breathing apparatus in emergency or rescue situations.
<b>Ventilation:</b> Enclosed area must be provided with general or local exhaust ventilation to avoid hazardous conditions.
<b>Protective Clothing or Equipment:</b> Safety glasses and shoes should be worn when handling high pressure cylinders or hazardous materials.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A	Specific Gravity (H2O)= 1, 20 deg C): N/A
Vapor Pressure (mm Hg, 20 deg C): N/A	Melting Point: N/A
Vapor Density (Air = 1): 0.967	Evaporation Rate (Butyl Acetate = 1): N/A
Solubility in Water: N/A	
<b>Appearance and Odor:</b> Colorless and odorless	

## SECTION 10 – STABILITY AND REACTIVITY DATA

<b>Stability:</b> Stable
<b>Incompatibility:</b> None
<b>Hazardous Decomposition or Byproducts:</b> None
<b>Hazardous Polymerization:</b> None

## SECTION 11 – TOXICOLOGICAL INFORMATION

**Routes of Entry:** Inhalation and/or skin contact.

This is a customized mixtures of liquids and/or gases. No data is available on the final product itself. Refer to Sections 2 and 3 for hazards related to specific components of the combined mixture.

## SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity:** No known effects. Any adverse effect on animals would be related to oxygen deficient environments, as well as respiratory system damage. Additionally, frost produced in the presence of rapidly expanding gases may adversely affect plant life.

**Other Effects:** The mixture does not contain any class I or Class II ozone depleting chemicals.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Disposal:** Waste disposal must be in accordance with appropriate National, Federal, State, and local regulations. Do not dispose or discharge into the environment. Do not discharge into enclosed environment. Contact supplier if additional guidance is required.

## SECTION 14 – TRANSPORTATION INFORMATION

**DOT Classification:**

Proper Shipping Name: Compressed Gas, N.O.S.  
Class: 2.2  
UN/ID No.: UN1956  
Label: Non-Flammable Gas, Green Label

**IATA Classification:**

Proper Shipping Name: Compressed Gas, N.O.S.  
Class: 2.2  
UN/ID No.: UN1956  
Label: Non-Flammable Gas, Green Label

## SECTION 15 – REGULATORY INFORMATION

U.S. SARA REPORTING REQUIREMENTS: The components of this gas mixture are subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows.

CHEMICAL NAME SARA 302  
(40 CFR 355, Appendix A) SARA 304  
(40 CFR Table 302.4) SARA 313  
(40 CFR 372.65)  
HEXANE NO YES YES

U.S. SARA THRESHOLD PLANNING QUANTITY: Not applicable.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.

CANADIAN DSL/NDL INVENTORY STATUS: The components of this gas mixture are on the DSL Inventory.

U.S. TSCA INVENTORY STATUS: The components of this gas mixture are on the TSCA Inventory.

### LABELING (For Compressed Gas):

CAUTION: HIGH PRESSURE GAS.  
CAN CAUSE RAPID SUFFOCATION.  
CAN INCREASE RESPIRATION AND HEART RATE.  
MAY CAUSE FROSTBITE.  
Avoid breathing gas.  
Store and use with adequate ventilation.  
Cylinder temperature should not exceed 52C (125F)  
Use equipment rated for cylinder pressure.  
Close valve after each use and when empty.  
Use in accordance with the Material Safety Data Sheet.

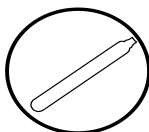
NOTE: Suck-back into cylinder may cause rupture.  
Always use a back flow preventative device in piping.

FIRST-AID: IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

IN CASE OF FROSTBITE, obtain immediate medical attention.  
DO NOT REMOVE THIS PRODUCT LABEL.

CANADIAN WHMIS SYMBOLS: Class A: Compressed Gas

WHMIS SYMBOLS:



## **SECTION 16 – OTHER INFORMATION**

Information contained in this data sheet is offered without charge for use by technically qualified personnel at their discretion and risk. All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable. But the accuracy and completeness thereof, is not guaranteed and no warranty of any kind, either expressed or implied, is made with respect thereto. Since MESA Specialty Gases and Equipment Division of MESA International Technologies, Inc. shall have no control over the use of the product described herein, we assume no liability for loss or damage incurred from the proper or improper use of such product.

### **DISCLAIMER**

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