

BACHARACH, INC.
MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet has been prepared to comply with the EC Directive, Canadian WHMIS and OSHA Hazard Communication Regulations.

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION
AND THE COMPANY/UNDERTAKING**

Bacharach, Inc.
621 Hunt Valley Circle
New Kensington, PA 15068

Emergency Phone: (800) 424-9300 (Chemtrec)
Information Phone: (724) 334-5760
Fax: (724) 334-5763

Product Name: Calibration Gas, Methane 97%

Product Number 06-1932

MSDS Number: 99-0074

Revision Number: 5

Product Use: Instrument Calibrator

MSDS Date of Preparation/Revision: 7/30/04

SECTION 2: COMPOSITION/ INFORMATION INGREDIENTS

| Chemical Name | CAS# / EINECS# | % | EU Classification (67/548/EEC) |
|---------------|---------------------|-----|--------------------------------|
| Methane | 74-82-8 / 200-812-7 | 97% | F+ R12 |
| Air | Mixture | 2% | Not Applicable |

See Section 16 for further information on EU Classification.

SECTION 3: HAZARDS IDENTIFICATION

Colorless, odorless, tasteless compressed gas in cylinders.

Emergency Overview: Extremely Flammable Gas. High concentrations may cause asphyxiation. Cylinders may rupture or explode at high temperatures or if damaged.

EU Preparation Classification (1999/45/EC): Extremely Flammable (F+) R12

SECTION 4: FIRST AID

Eye Contact: None needed.

Skin Contact: None needed.

Inhalation: Rescuers require SCBA and must be aware of extreme fire hazard. Remove victim to fresh air. Give artificial respiration if needed. Get immediate medical attention.

Ingestion: None needed.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

Flash Point: -188°C

Test Method: CC

Autoignition Temperature: 580°C

Flammable Limits: LEL: 5%

UEL: 15%

Extinguishing Media: Water, carbon dioxide, dry chemical. Cool exposed containers with water.

Special Fire Fighting Procedures: Stop flow of gas if safe to do so. Firefighters wear NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing. Use shielding to protect from cylinder explosion.

Unusual Fire And Explosion Hazards: Methane is an extremely flammable gas. Air/methane mixtures are explosive within the flammable range. Gas cylinders exposed to heat or flame may vent rapidly or explode.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide.

| |
|---|
| SECTION 6: ACCIDENTAL RELEASE MEASURES |
|---|

Eliminate all ignition sources. Evacuate area. Use appropriate protective equipment and move leaking cylinder to well ventilated location away from all sources of ignition. Ventilate leak area and purge equipment.

| |
|--|
| SECTION 7: HANDLING AND STORAGE |
|--|

Work Practices: Flammable gas. Keep away from heat, sparks, flames and all sources of ignition. Contents under pressure. Do not puncture. Never throw container into fire or incinerator. Keep cylinders secured. Do not drop or damage. Use pressure regulators.

Special Precautions Ground and bond all lines and equipment associated with methane system. For additional handling recommendations on compressed gas cylinders, consult Compressed Gas Association pamphlet P-1.

Storage: Flammable gas! Do not store cylinders near heat or open flame. Exposure to temperatures above 130F may cause rupture. Secure cylinders - do not drop. When removable cap is provided, store and handle with cap in place.

| |
|---|
| SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION |
|---|

| Chemical Name | Exposure Limits |
|---------------|--|
| Methane | 1,000 ppm TLV-TWA (as aliphatic hydrocarbon gas) |

Ventilation: Use local exhaust to prevent accumulations above the LEL. Use explosion-proof equipment.

Respiratory Protection: NIOSH approved positive pressure airline with escape bottle or SCBA for emergency use.

Gloves: Leather gloves recommended for cylinder handling

Eye Protection: Safety glasses recommended.

Other Protective Equipment: None needed.

| |
|--|
| SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES |
|--|

Appearance And Odor: Colorless, odorless, tasteless compressed gas in cylinders.

pH: Not applicable

Boiling Point: -162°C

Melting Point: -182°C

Solubility In Water: Negligible

Octanol/Water Coefficient: Not applicable

Specific Gravity: 0.673 kg/m³

Vapor Pressure: N/A (gas)

Vapor Density: 0.555 (Air=1)

Percent Volatile: 100%

| |
|---|
| SECTION 10: STABILITY AND REACTIVITY |
|---|

Stability: Stable

Conditions To Avoid: Avoid heat or flames.

Incompatibility: Oxidizers.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide.

Hazardous Polymerization: Will not occur.

Conditions To Avoid: N/A

| |
|--|
| SECTION 11: TOXICOLOGICAL INFORMATION |
|--|

Potential Health Effects:

BACHARACH, INC.

Calibration Gas, Methane 97%

MSDS NO: 99-0074

Eye Contact: None known or expected.

Skin Contact: None known or expected.

Inhalation: Methane is a non-toxic simple asphyxiant. High concentrations exclude adequate oxygen and cause asphyxiation. Symptoms include dizziness, nausea, deeper breathing, unconsciousness, and death.

Ingestion: Not applicable. This material is a gas

Chronic Health Effects: None known or expected.

Carcinogen Status: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP or OSHA.

Medical Conditions Aggravated By Exposure: None known or expected.

Acute Toxicity Data: Methane: LC50 Inhalation mouse: 50 pph/2 hours Methane is biologically inactive and essentially non-toxic.

Irritancy Data: This material is not irritating to tissues.

Sensitization: None of the components have been reported to cause sensitization in animals or humans.

Reproductive Toxicity None of the components have been reported to cause reproductive toxicity in animals or humans.

Teratogenicity: None of the components have been reported to cause teratogenic effects in animals or humans.

Mutagenicity: None of the components have been found to be mutagenic.

Synergistic Effects: There are no chemicals known to cause any additive adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION

Methane: No data available

SECTION 13: DISPOSAL

Dispose in accordance with all local, state, and federal regulations.

RCRA Hazardous Waste Codes: D001

SECTION 14: TRANSPORTATION DATA

DOT Shipping Name: Methane, Compressed

DOT Hazard Class: 2.1

UN Number: UN1971

DOT Labels Required (49CFR172.101): Flammable Gas

Hazardous Substance (49CFR172.101): N/A

Reportable Quantity: N/A

Emergency Response Guide Number: 17

IATA Shipping Name: Methane, Compressed

IATA Hazard Class: 2.1

UN Number: UN1971

IATA Hazard Labels Required: Flammable Gas (Cargo Aircraft Only, Up To 150 Kg)

SECTION 15: OTHER REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

SARA 311/312: Hazard Categories for SARA Section 311/312 Reporting: Fire hazard, Sudden Release of Pressure

BACHARACH, INC.

Calibration Gas, Methane 97%

MSDS NO: 99-0074

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Section 313 (40 CFR 372): None

CERCLA SECTION 103 Reportable Quantity: Not applicable

US Toxic Substances Control Act: All of the components of this product are listed on the EPA TSCA Inventory.
STATE REGULATIONS:


California Proposition 65: This product contains the following substances known to the State of California to cause Cancer and/or Reproductive Harm: None

INTERNATIONAL REGULATIONS:

Australian Inventory of Chemical Substances: All of the components in this product are listed on the AICS Inventory.

Canadian Environmental Protection Act: All of the components of this product are listed on the Canadian Domestic Substances List.


Canadian WHMIS Classification:

| | |
|--|--------------------------|
|  | Class B1 - Flammable Gas |
|--|--------------------------|

This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.

European Inventory Of Commercial Chemical Substances: All of the components of this product are listed on the EINECS Inventory.

European Community Labeling:

| | | |
|--|---|--|
| |  | R12 Extremely flammable S16 Keep away from sources of ignition - No Smoking! S33 Take precautionary measures against static discharges S9 Keep container in a well ventilated place |
|--|---|--|

Japanese Existing and New Chemical Substances: All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

Korean Existing Chemical Inventory: All of the components in the product are listed on the KECL Inventory.

Philippines Inventory of Chemicals and Chemical Substances: All of the components in this product are listed on the PICCS Inventory.

SECTION 16: OTHER INFORMATION

NFPA HAZARD RATING:

HEALTH: 0

FIRE: 4

INSTABILITY: 0

N/D=Not Determined

N/A=Not Applicable

EU Classes and Risk Phrases for Reference (See Sections 2 and 3):

F+ Irritant

R12 Extremely flammable

S16 Keep away from sources of ignition - No Smoking!

S33 Take precautionary measures against static discharges

S9 Keep container in a well ventilated place

Date of Latest MSDS Revision: 03/14/97

Revision Summary: Updated Format, Revised Section 1, 2, 8, 11, 12, 15, 16

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Bacharach, Inc., it is the users obligation to assure safe use of this product.