



Material Safety Data Sheet

1. Product and Company Identification

Product name : **Methane, Compressed Gas**

Chemical formula : CH₄

Synonyms : Fire Damp; Marsh Gas; Methyl Hydride; Natural Gas; Methane; UN 1971

Company : Med Tech Gases, Inc.
20 Hall Street
Medford, MA 02155

Telephone : 800-FINE-GAS

Emergency : 800-424-9300

2. Composition/Information on Ingredients

Components	CAS Number	% Volume
Methane	74-82-8	100%

3. Hazards Identification

Emergency Overview

Flammable gas. May cause flash fire. Flash back hazard. Electrostatic charges may be generated by flow, agitation, etc.
May cause difficulty in breathing.

Potential Health Effects

Inhalation : Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, drowsiness, fatigue, dizziness, disorientation, mood swing, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma.

Eye contact : No information on significant adverse effects.

Skin contact : No information on significant adverse effects.

Ingestion : Ingestion of a gas is unlikely.

Chronic Health Hazard : None known.

4. First Aid Measures

General advice : None.

Eye contact : Flush eyes with plenty of water.

Skin contact : Wash exposed skin with soap and water.

Ingestion : If a large amount is swallowed, get immediate medical attention.

Inhalation : If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.
Note to physicians: For inhalation, consider oxygen.

5. Fire-Fighting Measures

- Suitable extinguishing media : Carbon dioxide, regular dry chemical.
Large fires: Use regular foam or flood with fine water spray.
- Specific hazards : Severe fire hazard. Severe explosion hazard. Pressurized containers may rupture or explode if exposed to sufficient heat. Vapor/air mixtures are explosive above flash point. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.
- Fire fighting : Move container from fire area if it can be done without risk. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible, take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: stop leak if possible without personal risk. Let burn unless leak can be stopped immediately. For smaller tanks or cylinders, extinguish and isolate from other flammables. Evacuation radius: 800 meters (1/2 mile). Stop flow of gas.

6. Accidental Release Measures

- Occupational spill/release : Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. Ventilate closed spaces before entering.
- Additional advice : None.

7. Handling and Storage

Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

Storage

Store in accordance with all current regulations and standards. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

8. Exposure Controls / Personal Protection

Exposure limits

1000 ppm ACGIH TWA

Engineering measures/Ventilation

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Personal protective equipment

- Respiratory protection : Under conditions of frequent use or heavy exposure, respiratory protection may be needed.
For unknown concentrations or immediately dangerous to life or health – Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
- Hand protection : Wear appropriate chemical resistant gloves.

Eye protection : Eye protection not required, but recommended.
Skin and body protection : Protective clothing is not required.

9. Physical and Chemical Properties

Form : Gas.
Color : Colorless.
Odor : Odorless.
Molecular weight : 16.04
Vapor pressure : 760 mmHg @ -161°C
Vapor density : 0.555 (air = 1)
Specific gravity : Not applicable.
Boiling point : -260°F (-162°C)
Melting point : -297°F (-183°C)
Flash point : -369.4°F (-223°C)
Water solubility : 3.5% @ 17°C
Evaporation rate : Not applicable.
Solvent Solubility : Soluble: alcohol, ether, benzene, organic solvents.

10. Stability and Reactivity

Stability : Stable at normal temperatures and pressure.
Conditions to avoid : Avoid heat, sparks, flames or other sources of ignition. Containers may rupture or explode if exposed to heat.
Materials to avoid : Halogens, oxidizing materials, combustible materials.
Hazardous decomposition products : Thermal decomposition products: oxides of carbon.

11. Toxicological Information

The components of this material have been reviewed in various sources and the following selected endpoints are published:

METHANE (74-82-8) : Inhalation LC50 Mouse: 326 g/m3/2H

Acute Toxicity Level

METHANE (74-82-8) : Slightly toxic: inhalation.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

12. Ecological Information

No LOLI ecotoxicity data are available for this product's components.

13. Disposal Considerations

Waste from residues / unused products : Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.
Contaminated packaging : Return cylinder to supplier.

14. Transport Information

DOT (US only)

Proper shipping name : Methane, Compressed
Class : 2.1
UN/ID No. : UN1971
Labeling : Flammable Gas

Further information

Cylinders should be transported in a secure upright position in a well ventilated truck.

15. Regulatory Information

U.S. Federal Regulations

None of this product's components are listed under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA 311/312

Acute: Yes
Chronic: No
Fire: Yes
Reactive: No
Pressure: Yes

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
METHANE	74-82-8	No	Yes	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65