



Material Safety Data Sheet

1. Product and Company Identification

Product name : **Methyl Fluoride**
Chemical formula : CH₃F
Synonyms : Fluoromethane
Company : Specialty Gases of America, Inc
6055 Brent Dr.
Toledo, OH 43611
Telephone : 419-729-7732
Emergency : 800-424-9300

2. Composition/Information on Ingredients

Components	CAS Number	% Volume
Methyl Fluoride	593-53-3	99+%

3. Hazards Identification

Emergency Overview

Flammable liquid and gas under pressure.
Can form explosive mixtures with air.
May cause frostbite.

Potential Health Effects

Inhalation : Material acts as a simple asphyxiant by displacing air necessary for life.
Exposure may cause tingling of extremities and depressed sensations.
Eye contact : May cause irritation, redness, or blurred vision.
Skin contact : Vapors produce skin irritation, dermatitis, or burns. Liquid may cause frostbite.
Pressure drop through valves and piping may cause extreme cold and frostbite on contact.
Ingestion : Not identified as primary route of entry.
Chronic Health Hazard : None.

4. First Aid Measures

General advice : None.
Eye contact : Immediately flush with copious amounts of water for at least 15 minutes.
Skin contact : Immediately flush with copious amounts of water for at least 15 minutes while removing contaminated clothing. If frostbite occurs, flush affected areas with lukewarm water.
Ingestion : None.
Inhalation : Immediately remove victim to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration.

5. Fire-Fighting Measures

Suitable extinguishing media	: Carbon dioxide, foam, or dry chemical.
Specific hazards	: Cylinder rupture may occur under fire conditions. Vapors may travel a considerable distance to the source of ignition and flash back.
Special protective equipment for fire-fighters	: Wear self contained breathing apparatus and full protective clothing. Keep fire exposed cylinders cool with water spray. Extinguish only if flow can be stopped.

6. Accidental Release Measures

Personal precautions	: None.
Environmental precautions	: None.
Methods for cleaning up	: Evacuate and ventilate area. Remove all sources of heat and ignition. Remove leaking cylinder to exhaust hood or safe outdoor area if this can be done safely. Allow gas to dissipate.
Additional advice	: None.

7. Handling and Storage

Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders. Use spark-proof tool and explosion-proof equipment.

Storage

Store in well ventilated areas. Keep valve protection cap on cylinders when not in use.

8. Exposure Controls / Personal Protection

Engineering measures

Provide adequate general and local exhaust ventilation. Use explosion-proof ventilation equipment.

Personal protective equipment

Respiratory protection	: Use a self-contained breathing apparatus in case of emergency or non-routine use.
Hand protection	: Protective gloves to prevent contact with cold equipment.
Eye protection	: Safety glasses. A safety shower and eyewash station should be readily available.
Skin and body protection	: Wear suitable protective clothing. Safety shoes when handling cylinders.
Remarks	: None.

9. Physical and Chemical Properties

Form	: Gas.
Color	: Colorless.
Odor	: Slight ethereal odor.
Vapor pressure	: @ 20 deg. C: 538 psig
Vapor density	: @ 20 deg. C: 1.195 (Air = 1)
Boiling point (C)	: -78.4
Water solubility	: 166 cm ³ (CH ₃ F)/100 cm ³
Specific gravity	: @ 20 deg C: 0.56 (H ₂ O = 1)

Evaporation rate : Not available.

10. Stability and Reactivity

Stability : Stable under normal conditions.
Conditions to avoid : Storage in poorly ventilated areas. Sparks, flame, heat and other sources of ignition.
Materials to avoid : Oxidizing agents.
Hazardous decomposition products : Toxic carbon monoxide and hydrogen fluoride.

11. Toxicological Information

Toxicity Data

Lethal concentration (LC50): None established.

Acute Health Hazard

Ingestion : Not available.
Inhalation : Not available.
Skin : Not available.

12. Ecological Information

No adverse ecological effects are expected.

13. Disposal Considerations

Waste from residues / unused products : Dispose of non-refillable cylinders in accordance with federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place.
Contaminated packaging : Return cylinder to supplier.

14. Transport Information

DOT (US only)

Proper shipping name : Methyl Fluoride
Class : 2.1
UN/ID No. : UN2454
Labeling : Flammable Gas

Further information

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

15. Regulatory Information

OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class(es)

Material is not listed in appendix A of 29 CFR 1910.119 as highly hazardous chemical.

TCSA

Material is listed in TSCA inventory.

SARA

The threshold planning quantity for material is 10,000 lbs.

Number in Annex 1 of DIR 67/548

Not listed in annex 1.

16. Other Information

Prepared by : Specialty Gases of America, Inc.

For additional information, please visit our website at www.americangasgroup.com.