



Material Safety Data Sheet

1. Product and Company Identification

Product name : **1-Chloro-1,1-Difluoroethane**
Chemical formula : C₂H₃CLF₂
Synonyms : Difluoromonochloroethane, HCFC 142B
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
1-Chloro-1,1-Difluoroethane	75-68-3	99+%

3. Hazards Identification

Emergency Overview

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

Potential Health Effects

Routes of entry : Inhalation.
Acute effects : Material acts as a simple asphyxiant by displacing air necessary for life. Symptoms include rapid respiration, muscular incoordination, fatigue, dizziness, nausea, vomiting, unconsciousness, and death. May cause anesthetic effects. Can cause irregular heart beat. Eye contact may be irritating. Pressure drop through valves and piping may cause extreme cold and frostbite on contact.
Chronic effects : None known.
Medical conditions aggravated by overexposure : None known.
Other effects of overexposure : None known.

4. First Aid Measures

General advice : None.
Eye contact : Immediately flush with copious amount of water for at least 15 minutes.
Skin contact : Immediately flush with copious amount of water for at least 15 minutes while removing contaminated clothing. If frostbite occurs, flush affected area with lukewarm water.
Ingestion : Wash out mouth with water.

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 : Do not extinguish burning gas if flow cannot be shut off immediately. Carbon dioxide, foam, or dry chemical. Move cylinder away from fire if there is a risk.
Specific hazards : Cylinder rupture may occur under fire conditions. May form explosive mixture in air. Vapors may travel a considerable distance to the source of ignition and flash back. Emits toxic fumes under fire conditions.
Special protective equipment for fire-fighters : Wear self contained breathing apparatus and full protective clothing. If possible, stop the product flow.

6. Accidental Release Measures

Personal precautions : None.
Environmental precautions : None.
Methods for cleaning up : Evacuate and ventilate area. Shut off source if possible and remove source of heat. Remove sources of ignition and combustibles.
Additional advice : None.

7. Handling and Storage

Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders. Eliminate all ignition sources.

Storage

Store in well ventilated areas. Keep valve protection cap on cylinders when not in use. Store away from heat, flame and sparks.

8. Exposure Controls / Personal Protection

Engineering measures

Provide adequate general and local exhaust ventilation to maintain concentrations below flammable limits and to avoid asphyxiation.

Personal protective equipment

Respiratory protection : Use a self-contained breathing apparatus in case of emergency or non-routine use.
Hand protection : Protective gloves.
Eye protection : Safety glasses.
Skin and body protection : Wear protective clothing. Safety shoes when handling cylinders.
Special instructions for protection and hygiene : None.
Remarks : None.

9. Physical and Chemical Properties

Form : Liquefied gas.
Color : Colorless.
Odor : Slight ethereal odor.
Vapor pressure : @ 21 deg. C: 2196 mm Hg

Vapor density : 3.49 (Air = 1)
Boiling point (C) : -10
Water solubility : Slight.
Specific gravity : @1.11(H₂O = 1).
Evaporation rate : Not applicable.

10. Stability and Reactivity

Stability : Stable under normal conditions.
Conditions to avoid : Storage in poorly ventilated areas. Storage near heat source.
Materials to avoid : Strong acids, oxidizers, and active metals.
Hazardous decomposition products : Toxic carbon monoxide and hydrogen fluoride. Hydrogen chloride.

11. Toxicological Information

Acute Health Hazard

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

12. Ecological Information

This material is a Class 2 ozone depleting material.

13. Disposal Considerations

Waste from residues / unused products : Dispose of non-refillable cylinders in accordance to federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the 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 : 1-Chloro-1,1-difluoroethane
Class : 2.1
UN/ID No. : UN2517
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.

TSCA

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.