



# Material Safety Data Sheet

## 1. Product and Company Identification

Product name : **1,1-Dichlorotetrafluoroethane**  
Chemical formula : C<sub>2</sub>Cl<sub>2</sub>F<sub>4</sub>  
Synonyms : None  
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 |
|-------------------------------|------------|----------|
| 1,1-Dichlorotetrafluoroethane | 374-07-2   | 99+%     |

## 3. Hazards Identification

### Emergency Overview

Nonflammable liquid and gas under pressure.  
Can cause rapid suffocation.  
May cause frostbite.

### Potential Health Effects

Inhalation : Mixture can act as a simple asphyxiant by displacing air necessary for life. Pressure drop through valves and piping may cause extreme cold and frostbite on contact.  
Eye contact : Frostbite.  
Skin contact : Frostbite.  
Ingestion : Not identified as primary route of entry.  
Chronic Health Hazard : None known.

## 4. First Aid Measures

General advice : None.  
Eye contact : Immediately flush eyes, including under the eyelids, gently but thoroughly with plenty of running water for at least 15 minutes.  
Skin contact : If frostbite occurs, flush affected area with lukewarm water.  
Ingestion : Never give anything by mouth to an unconscious person. Contact physician immediately.  
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 : Use what is appropriate for surrounding fire.
- Specific hazards : Emits toxic fumes under fire conditions.
- Fire fighting : Wear self contained breathing apparatus and full protective clothing. Keep fire exposed cylinders cool with water spray. If possible, stop the product flow.

## 6. Accidental Release Measures

- Occupational spill/release : Evacuate and ventilate area. Remove leaking cylinder to exhaust hood or safe outdoor area. Shut off source if possible and remove source of heat.
- 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 well ventilated areas. Keep valve protection cap on cylinders when not in use.

## 8. Exposure Controls / Personal Protection

### Engineering measures/Ventilation

Provide adequate general and local exhaust ventilation.

### 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 : Protective clothing and safety shoes when handling cylinders.
- Remarks : None.

## 9. Physical and Chemical Properties

- Form : Liquefied gas.
- Color : Colorless.
- Odor : Slight ethereal odor.
- Vapor pressure : @ 25°C: 16 psig
- Vapor density : 5.9 (Air = 1)
- Boiling point (C) : 3°C
- Water solubility : @ 20°C: Insoluble
- Specific gravity : Not available.
- Evaporation rate : Not available.

## 10. Stability and Reactivity

- Stability : Stable under normal conditions.
- Conditions to avoid : Storage in poorly ventilated areas. Storage near a heat source.

Materials to avoid : Alkali or alkaline earth metals.  
Hazardous decomposition products : Hydrochloric acid and hydrofluoric acid, possibly carbonyl halides.

#### 11. Toxicological Information

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

#### 12. Ecological Information

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

#### 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 : Dichlorotetrafluoroethane  
Class : 2.2  
UN/ID No. : UN1958  
Labeling : Non-flammable Gas

#### 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 10000 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](http://www.americangasgroup.com).