



Material Safety Data Sheet

1. Product and Company Identification

Product name : **Chloropentafluoroethane**

Chemical formula : C2ClF5

Synonyms : Halon 251; Halocarbon 115; Monochloropentafluoroethane;
Pentafluorochloroethane; Refrigerant gas 115

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
Chloropentafluoroethane	76-15-3	99+%

3. Hazards Identification

Emergency Overview

Liquid and gas under pressure.
Can cause rapid suffocation.
May cause frostbite.
May cause dizziness and drowsiness.

Potential Health Effects

Inhalation : Asphyxiant. Effects are due to lack of oxygen. High concentrations may cause dizziness, nausea, vomiting, disorientation, confusion, incoordination, and narcosis. Effects are due to suffocation. Lack of oxygen can kill.

Eye contact : Liquid may cause severe corneal injury.

Skin contact : Liquid halocarbon 115 may cause frostbite. If skin contact is prolonged or widespread, harmful amounts may be absorbed by the skin.

Ingestion : A highly unlikely route of exposure. This product is a gas at normal temperature and pressure. Frostbite of the mouth and lips may occur from contact with the liquid.

Chronic Health Hazard : At very high concentrations, halocarbon 115 may produce cardiac arrhythmias or arrest due to sensitization of the heart to adrenaline and noradrenalin. Exposure to fluorocarbon thermal decomposition products may produce flu-like symptoms including chills, fever, weakness, muscular aches, headache, chest discomfort, sore throat, and dry cough. Complete recovery usually occurs within 24 hours after exposure.

4. First Aid Measures

General advice : None.

Eye contact : For contact with the liquid, immediately flush eyes thoroughly with warm water

- for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure all surfaces are flushed thoroughly. See a physician, preferably an ophthalmologist, immediately.
- Skin contact : For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105 F (41 C). In case of massive exposure, remove contaminated clothing while showering with warm water. Call a physician.
- Ingestion : An unlikely route of exposure; this product is gas at normal temperature and pressure.
- Inhalation : Immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician immediately.

5. Fire-Fighting Measures

- Suitable extinguishing media : Halocarbon 115 cannot catch fire. Use media appropriate for surrounding fire.
- Specific hazards : Heat of fire can build pressure in cylinder and cause it to rupture. No part of a cylinder should be subjected to a temperature higher than 125 F (52 C). Halocarbon 115 cylinders are equipped with a pressure relief device. (Exceptions may exist where authorized by DOT). Toxic fumes may be produced when halocarbon 115 is heated.
- Fire fighting : CAUTION! Liquid and gas under pressure. Asphyxiant – lack of oxygen can kill. Evacuate all personnel from danger area. Immediately deluge cylinders with water from maximum distance until cool; then move them away from fire area if without risk. Self-contained breathing apparatus may be required by rescue workers. On-site fire fighters must comply with OSHA 29 CFR 1910.156.

6. Accidental Release Measures

- Personal precautions : None.
- Environmental precautions : Prevent waste from contaminating the surrounding environment. Keep personnel away. Discard any product, residue, disposable container, or liner in an environmentally acceptable manner, in full compliance with federal, state and local regulations. If necessary, call your local supplier for assistance.
- Methods for cleaning up : Immediately evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Shut off flow if without risk. Ventilate area or move cylinder to a well-ventilated area. Flammable vapors may spread from spill. Before entering area, especially a confined area, check atmosphere with an appropriate device.
- Additional advice : None.

7. Handling and Storage

Handling

Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide or drop. All piped carbonyl sulfide system and associated equipment must be grounded. Electrical equipment must be non-sparking or explosion-proof. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g. wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier.

Storage

Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection caps firmly in place by hand. Store only where temperature will not exceed 125 F (52 C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.

8. Exposure Controls / Personal Protection

Engineering measures

Use a local exhaust system with sufficient air flow velocity to maintain the concentration of halocarbon 115 vapors below the TLV in the worker's breathing zone. General exhaust ventilation may be acceptable if it can maintain an adequate supply of air.

Personal protective equipment

Respiratory protection	:	Use an air-supplied respirator with a full-face, positive-pressure, self-contained breathing apparatus. Respiratory protection must conform to OSHA 29 CFR 1910.134. Select per OSHA 29 CFR 1910.134 and ANSI Z88.2.
Hand protection	:	Wear work gloves when handling containers; insulated neoprene gloves where contact with product may occur.
Eye protection	:	Wear safety glasses when handling cylinders; safety goggles or a full face shield where contact with product may occur.
Skin and body protection	:	Metatarsal shoes for container handling and protective clothing where needed. Regardless of protective equipment, never touch live electrical parts.
Remarks	:	None.

9. Physical and Chemical Properties

Form	:	Gas.
Color	:	Colorless.
Odor	:	Mild ether-like odor.
Molecular weight	:	154.467
Vapor pressure	:	119.1 psia (821.2 kPa abs) @ 70 F (21.1 C)
Vapor density	:	Not applicable.
Specific gravity	:	5.334 @ 70 F (21.1 C) (air = 1)
Boiling point	:	-38.4 F (-39.11 C)
Melting point	:	-146.99 F (-99.44 C)
Water solubility	:	0.0058% by wt at 77 F (25 C)

10. Stability and Reactivity

Stability	:	Stable under normal conditions.
Conditions to avoid	:	Elevated temperatures. The presence of certain metals may promote catalytic decomposition of the gas.
Materials to avoid	:	Polystyrene, natural rubber, and alloys of more than 2% magnesium in the presence of water.
Hazardous decomposition products	:	Thermal decomposition may produce toxic fumes of fluorides.

11. Toxicological Information

Acute Health Hazard

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

12. Ecological Information

Halocarbon 115 is listed as a Class I ozone-depleting chemical.
Halocarbon 115 is not listed as a marine pollutant by DOT.

WARNING! Contains chloropentafluoroethane, a substance which harm public health and environment by destroying ozone in the upper atmosphere.

13. Disposal Considerations

Waste from residues : Do not attempt to dispose of residual or unused quantities. Return cylinder to
/ unused products supplier.
Contaminated : Return cylinder to supplier.
packaging

14. Transport Information

DOT (US only)

Proper shipping : Chloropentafluoroethane
name
Class : 2.2
UN/ID No. : UN1020
Labeling : Nonflammable Gas

Further information

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

15. Regulatory Information

OSHA Process Safety (29 CFR 1910.119) Hazard Class(es)

Halocarbon 115 is not listed in Appendix A as a highly hazardous chemical.

TCSA

Material is listed in TSCA inventory.

SARA Sections 302/304 (40 CFR 355)

Threshold Planning Quantity (TPQ): None
Extremely Hazardous Substances (EHS) RQ: None

SARA Sections 311/312

Immediate: Yes
Delayed: No
Pressure: Yes
Reactivity: No
Fire: No

SARA Section 313 (40 CFR 372.65)

Halocarbon 115 is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40CFR Part 372.

CERCLA (40 CFR Parts 117 and 302)

Reportable Quantity (RQ): None

16. Other Information

Prepared by : Specialty Gases of America, Inc.
For additional information, please visit our website at www.americangasgroup.com.