



# Material Safety Data Sheet

## 1. Product and Company Identification

Product name : **Hexafluoropropylene**

Chemical formula : C3F6

Synonyms : Hexafluoropropene; Perfluoropropene; Perfluoropropylene; Hexfluoropropylene; 1,1,2,3,3,3-Hexafluoro-1-Propene; Perfluoro-1-Propene; UN 1858

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
Hexafluoropropylene	116-15-4	100%

## 3. Hazards Identification

### Emergency Overview

May cause difficulty breathing.

Containers may rupture or explode if exposed to heat. May react on contact with water.

### Potential Health Effects

Inhalation : Irregular heartbeat, irritation, symptoms of drunkenness, suffocation, lung congestion. May cause kidney damage, liver damage in long term exposure.

Eye contact : No information on significant adverse effects.

Skin contact : Irritation.

Ingestion : No information on significant adverse effects.

Chronic Health Hazard : None known.

## 4. First Aid Measures

General advice : None.

Eye contact : Flush eyes with plenty of water.

Skin contact : If frostbite occurs, immediately flush with plenty of lukewarm water (105-115°F; 41-46°C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

Ingestion : If a large amount is swallowed, get 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 : Negligible fire hazard.
- Fire fighting : Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. 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: Evacuation radius: 800 meters (1/2 mile). Use extinguishing agents appropriate for surrounding fire. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Do not get water directly on material. Reduce vapors with water spray. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Consider downward evacuation if material is leaking.

## 6. Accidental Release Measures

- Occupational spill/release : Stop leak if possible without personal risk. Keep unnecessary people away. Isolate hazard area and deny entry. Stay upwind and keep out of low areas.
- 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.

## 8. Exposure Controls / Personal Protection

### Exposure limits

ACGIH : 0.1 ppm TWA

### Engineering measures/Ventilation

Provide local exhaust 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. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.  
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 insulated gloves.
- Eye protection : Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
- Skin and body protection : For the gas: Wear appropriate chemical resistant clothing. For the liquid: Wear appropriate protective, cold insulating clothing.

## 9. Physical and Chemical Properties

Form	: Gas.
Color	: Colorless.
Odor	: Odorless.
Molecular weight	: 150.03
Vapor pressure	: 6.78 atm @ 21.1°C
Vapor density	: Not available (air = 1)
Boiling point	: -29°C
Melting point	: -156°C
Water solubility	: Hydrolyzes.
Specific gravity	: 1.583 @ -40°C/4°C (water = 1)

## 10. Stability and Reactivity

Stability	: Stable under normal conditions.
Conditions to avoid	: Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.
Materials to avoid	: Metals.
Hazardous decomposition products	: Thermal decomposition products: acid halides.

## 11. Toxicological Information

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

HEXAFLUOROPROPYLENE : Inhalation LC50 Rat: 1800 ppm/4H  
(116-15-4)

### Acute Toxicity Level

HEXAFLUOROPROPYLENE : Moderately toxic: inhalation.  
(116-15-4)

### Component Carcinogenicity

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

## 12. Ecological Information

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

## 13. Disposal Considerations

Waste from residues / unused products	: Dispose in accordance with all applicable regulations.
Contaminated packaging	: Return cylinder to supplier.

## 14. Transport Information

### DOT (US only)

Proper shipping name : Hexafluoropropylene, compressed

Class : 2.2  
UN/ID No. : UN1858  
Labeling : Non-Flammable Gas

**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: No  
Reactive: Yes  
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
HEXAFLUOROPROPYLENE	116-15-4	No	No	No	Yes	No	No

Not regulated under California Proposition 65.

**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).