Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29CFR 1910.1200)

Product name  HFC-236fa Stored Pressure Extinguisher

1. Identification

1.1. Product Identifier
Product name  HFC-236fa Stored Pressure Extinguisher

1.2. Other means of identification
Product code  433916
UN/ID no  UN1044
Synonyms  None
Chemical Family  No information available

1.3. Recommended use of the chemical and restrictions on use
Recommended use  No information available
Uses advised against  Consumer use

1.4. Details of the Supplier of the Safety Data Sheet
Company Name  Tyco Fire Protection Products
One Stanton Street
Marinette, WI 54143-2542
Telephone: 715-735-7411

Contact point  Product Stewardship at 1-715-735-7411
E-mail address  psra@tycolp.com

1.5. Emergency Telephone Number
Emergency telephone  CHEMTREC 800-424-9300 or 703-527-3887

2. Hazards Identification

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Gases Under Pressure - Compressed Gas

2.2. Label Elements
Signal Word
WARNING

hazard statements
Contains gas under pressure; may explode if heated

Precautionary Statements

Revision date  25-May-2015
Version  25
Storage
Protect from sunlight. Store in a well-ventilated place.

2.3. Hazards Not Otherwise Classified (HNOC)
Contact with product may cause frostbite.

2.4. OTHER INFORMATION

3. Composition/information on Ingredients

3.1. Mixture
The product contains no substances which at their given concentration, are considered to be hazardous to health.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,3,3,3-Hexafluoropropane</td>
<td>690-39-1</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures
General Advice Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately if symptoms occur.).

Ingestion Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison control center or physician immediately.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed
Symptoms Unconsciousness.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
Note to physicians Treat symptomatically.

5. Fire-fighting measures

5.1. Suitable Extinguishing Media
Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
5.2. Unsuitable Extinguishing Media
None.

5.3. Specific Hazards Arising from the Chemical
None known.
- **Hazardous Combustion Products**
  Carbon oxides, Fluorinated oxides, Nitrogen oxides (NOx), Oxides of sulfur

5.4. Explosion Data
- **Sensitivity to Mechanical Impact**
  None.
- **Sensitivity to Static Discharge**
  None.

5.5. Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
- **Personal Precautions**
  Ensure adequate ventilation, especially in confined areas.
- **OTHER INFORMATION**
  Ventilate the area.
- **For emergency responders**
  Use personal protection recommended in Section 8.

6.2. Environmental Precautions
- **Environmental Precautions**
  Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up
- **Methods for Containment**
  Prevent further leakage or spillage if safe to do so.
- **Methods for Cleaning Up**
  Pick up and transfer to properly labeled containers.

7. Handling and Storage

7.1. Precautions for Safe Handling
- **Advice on safe handling**
  Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities
- **Storage Conditions**
  Keep containers tightly closed in a dry, cool and well-ventilated place.
- **Incompatible Materials**

8. Exposure Controls/Personal Protection

8.1. Control Parameters
- **Exposure guidelines**
  This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
8.2. Appropriate Engineering Controls

Engineering controls  Showers  
Eyewash stations  
Ventilation systems.

8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection  Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection  Wear protective gloves and protective clothing.

Respiratory Protection  If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Ventilation  Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>VALUES</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Compressed liquefied gas</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
<td>Color</td>
</tr>
<tr>
<td>odor threshold</td>
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<td>Colorless</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
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<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
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<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>flammability (solid, gas)</td>
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<td></td>
</tr>
<tr>
<td>Flammability limit in air</td>
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<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
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<td></td>
</tr>
<tr>
<td>Specific gravity</td>
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<td></td>
</tr>
<tr>
<td>Water Solubility</td>
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<td></td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
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<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
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<td></td>
</tr>
<tr>
<td>Autoignition Temperature</td>
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<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Kinematic viscosity</td>
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<td></td>
</tr>
</tbody>
</table>

10. Stability and Reactivity
10.1. Chemical Stability

Stable under recommended storage conditions.

10.2. Reactivity

No data available

10.3. Possibility of hazardous reactions

None under normal processing.

hazardous polymerization Hazardous polymerization does not occur.

10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible Materials


10.6. Hazardous decomposition products


11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information

INHALATION In high concentration the gas may cause a suffocation. Victim may not be aware of asphyxiation. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death.

Eye Contact Contact with product may cause frostbite.

Skin contact Contact with product may cause frostbite.

INGESTION Not an expected route of exposure.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>dermal LD50</th>
<th>Inhalation LC50</th>
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<tbody>
<tr>
<td>1,1,1,3,3,3-Hexafluoropropane 690-39-1</td>
<td>-</td>
<td>-</td>
<td>91400 ppm (rat) 1 hr.</td>
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11.2. Information on Toxicological Effects

Symptoms No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

sensitization No information available.

Germ Cell Mutagenicity No information available

carcinogenicity No information available

Reproductive Toxicity Lack of oxygen during pregnancy has produced developmental abnormalities in humans and experimental animals.

STOT - Single Exposure No information available.
STOT - Repeated Exposure
No information available.
Target organ effects
Respiratory System.
Aspiration Hazard
No information available.

11.4. Numerical Measures of Toxicity - No information available

12. Ecological Information

12.1. ecotoxicity
Not classified
100% of the mixture consists of components(s) of unknown hazards to the aquatic environment

12.2. Persistence and Degradability
No information available.

12.3. Bioaccumulation
No information available.

12.4. Other Adverse Effects
No information available

13. Disposal Considerations

13.1. Waste Treatment Methods
Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging
Do not reuse container.

14. Transport Information

DOT
UN/ID no
UN1044
Description
UN1044, Fire extinguishers, 2.2
Proper Shipping Name
Fire extinguishers
Hazard class
2.2
Special Provisions
18, 110
Emergency Response Guide Number
126

TDG
UN/ID no
UN1044
Description
UN1044, Fire extinguishers, 2.2
Proper Shipping Name
Fire extinguishers
Hazard class
2.2

MEX
UN/ID no
UN1044
Description
UN1044, Fire extinguishers, 2.2
### Product Information

**Product code:** 433916  
**Product name:** HFC-236fa Stored Pressure Extinguisher

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<td><strong>Hazard class</strong></td>
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**ICAO (air)**

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<tr>
<td><strong>Proper Shipping Name</strong></td>
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<tr>
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<td><strong>Special Provisions</strong></td>
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**IATA**

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<tr>
<td><strong>Description</strong></td>
<td>UN1044, Fire extinguishers, 2.2</td>
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<td><strong>Proper Shipping Name</strong></td>
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<td><strong>Hazard class</strong></td>
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<td><strong>ERG Code</strong></td>
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**IMDG**

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<td><strong>Description</strong></td>
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<tr>
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<tr>
<td><strong>Hazard class</strong></td>
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<tr>
<td><strong>EmS-No</strong></td>
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<td><strong>Special Provisions</strong></td>
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### 15. Regulatory Information

**15.1. International Inventories**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies/Does not comply</th>
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<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>IECSC</td>
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<td>KECL</td>
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<tr>
<td>PICCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>AICS</td>
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</tr>
</tbody>
</table>

**Legend:**

- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- **ENCS** - Japan Existing and New Chemical Substances
- **IECSC** - China Inventory of Existing Chemical Substances
- **KECL** - Korean Existing and Evaluated Chemical Substances
- **PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- **AICS** - Australian Inventory of Chemical Substances

**15.2. US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<table>
<thead>
<tr>
<th>Hazard Category</th>
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</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Chronic health hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Revision date** 25-May-2015  
**Version** 25
Reactive Hazard

No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

15.3. US State Regulations
California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations
This product does not contain any substances regulated by state right-to-know regulations

16. Other information, including date of preparation of the last revision

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>flammability</th>
<th>Instability</th>
<th>Physical and chemical properties</th>
</tr>
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<tbody>
<tr>
<td>0</td>
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</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
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<tbody>
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<td>3</td>
<td>X</td>
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Revision date 25-May-2015
Revision note No information available
Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet