



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Revision date 16-Jan-2024

Revision Number 2

## 1. Identification

### Product identifier

Product name HFC-236fa Stored Pressure Extinguisher

### Other means of identification

Product code 429021

UN number or ID number UN1044

Synonyms None

### Recommended use of the chemical and restrictions on use

Recommended use No information available

Uses advised against No information available

### Details of the supplier of the safety data sheet

Company Name Johnson Controls  
One Stanton Street  
Marinette, WI +54143-2542  
Telephone: +715-732-3465 or +715-735-7411

E-mail psra@jci.com

Company Phone Number Product Stewardship at +1-715-735-7411

Emergency telephone CHEMTREC 001-800-424-9300 or 001-703-527-3887

## 2. Hazard(s) identification

### Classification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Gases under pressure	Compressed gas
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### Label elements

Signal word

Warning

### Hazard Statements

Contains gas under pressure; may explode if heated



**Precautionary Statements - Storage**

Protect from sunlight. Store in a well-ventilated place

**Hazards not otherwise classified (HNOC)**

Contact with product may cause frostbite

**Other information**

No information available.

**3. Composition/information on ingredients**

Substance

Mixture

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical name	CAS No.	Weight-%	Trade secret
1,1,1,3,3,3-Hexafluoropropane	690-39-1	>100	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. First-aid measures**

Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
Ingestion	Rinse mouth.

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
Effects of Exposure	No information available.



**Indication of any immediate medical attention and special treatment needed**

Note to physicians                      Treat symptomatically.

**5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.
<b>Specific hazards arising from the chemical</b>	Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. Ruptured cylinders may rocket.
<b>Hazardous combustion products</b>	Carbon oxides. Fluorinated oxides.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Yes.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Contents under pressure. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

**Environmental Precautions**

<b>Environmental Precautions</b>	Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. See Section 12 for additional Ecological Information.
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**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

**7. Handling and storage**

**Precautions for safe handling**

<b>Advice on safe handling</b>	Contents under pressure. Empty containers pose a potential fire and explosion hazard. Do
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not cut, puncture or weld containers.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight.

**8. Exposure controls/personal protection**

Control parameters

Exposure Limits

Appropriate engineering controls

Engineering controls Showers  
Eyewash stations  
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and Body Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact

Respiratory Protection In case of insufficient ventilation, wear suitable respiratory equipment Wear a respirator conforming to EN 140 with Type A filter or better

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

Information on basic physical and chemical properties

Physical state Compressed liquefied gas  
Appearance No information available  
Color colorless  
Odor Characteristic  
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
pH (as aqueous solution)		None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	



Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

**Other information**

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	100
Liquid Density	No information available
Refractive Index	No information available
Bulk density	No information available

**10. Stability and reactivity**

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	Carbon oxides. Fluorinated oxides.

**11. Toxicological information****Information on likely routes of exposure**

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

Symptoms No information available.

Acute toxicity .



## Numerical measures of toxicity

## Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1,1,1,3,3,3-Hexafluoropropane 690-39-1	-	-	914000 ppm (rat) 1 hr.

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

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	Respiratory system.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

**12. Ecological information**

## Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,1,1,3,3,3-Hexafluoropropane 690-39-1	-	LC50: =292mg/L (96h, Danio rerio)	-	-



Persistence and degradability No information available.

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
1,1,1,3,3,3-Hexafluoropropane 690-39-1	1.12

**Other adverse effects** No information available.

### 13. Disposal considerations

Disposal methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

DOT

UN number or ID number UN1044  
Proper shipping name Fire extinguishers  
Transport hazard class(es) 2.2  
Special Provisions 110  
DOT Marine Pollutant NP  
Description UN1044, Fire extinguishers, 2.2  
Emergency Response Guide Number 126

TDG

UN number or ID number UN1044  
UN proper shipping name Fire extinguishers  
Transport hazard class(es) 2.2  
Special Provisions 109  
Description UN1044, Fire extinguishers, 2.2

MEX

UN number or ID number UN1044  
UN proper shipping name Fire extinguishers  
Transport hazard class(es) 2.2  
Description UN1044, Fire extinguishers, 2.2  
Special Provisions 225

ICAO (air)

UN number or ID number UN1044  
UN proper shipping name Fire extinguishers  
Transport hazard class(es) 2.2  
Description UN1044, Fire extinguishers, 2.2



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Special Provisions A19

**IATA**

UN number or ID number UN1044  
UN proper shipping name Fire extinguishers  
Transport hazard class(es) 2.2  
Description UN1044, Fire extinguishers, 2.2  
Special Provisions A19  
ERG Code 2L

**IMDG**

Not regulated  
UN number or ID number UN1044  
UN proper shipping name Fire extinguishers  
Transport hazard class(es) 2.2  
EmS-No F-C, S-V  
Special Provisions 225  
Marine pollutant NP  
Description UN1044, Fire extinguishers, 2.2

**15. Regulatory information**International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Does not comply
PICCS	Complies
AIIC	Complies
NZIoC	Complies

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
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  
AIIC - Australian Inventory of Industrial Chemicals  
NZIoC - New Zealand Inventory of Chemicals

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**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)





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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.

**US State Regulations**

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

<u>NFPA</u>	Health hazards 0	Flammability 0	Instability 0	Special hazards -
<u>HMIS</u>	Health hazards 0	Flammability 0	Physical hazards 3	Personal protection X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: Exposure controls/personal protection			
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

Revision date 16-Jan-2024  
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,



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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**