

Safety Data Sheet

According to Regulation (EU) No. 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 453/2010)

Version: 2.0/EN

Product name: 1,1,1,2,3,3,3-Heptafluoropropane

Revision date: 05/09/2012

Printing date: 05/09/2012

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: 1,1,1,2,3,3,3-Heptafluoropropane
REACH Reg. No.: Pre-registration No. 17-211998XXXX-XX-XXXX
CAS No.: 431-89-0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Fire extinguishing agent.
Uses advised against: No information available.

1.3 Details of the supplier of the SDS

Manufacturer: Shanghai Waysmos Fine Chemical Co., Ltd.
Address: 388 Liangle Road, Laogang Town, Pudong New Area, Shanghai, China
Postcode: 201322
E-mail: sales@hfc227ea.com.cn
Telephone: +86-571-85069383
Fax: +86-571-85069385

Importer:
Address:
E-mail:
Telephone:



1.4 Emergency telephone number

+86-571-85069386

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008[CLP]

Gases under pressure, Liquefied gas; H280

Classification according to Directive 67/548/EEC[DSD] or Directive 1999/45/EC[DPD]

This product is not classified as hazardous.

Additional information

Full text of R-phrases/H-statements: see SECTION 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008[CLP]

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Hazard pictogram(s):



Signal word: Warning

Hazard statement(s): H280: Contains gas under pressure; may explode if heated.

Precautionary statement(s):

Storage: P410 + P403: Protect from sunlight. Store in a well-ventilated place.

Supplemental Hazard information (EUH):

No information available.

Special rules for supplemental label elements for certain mixtures:

No information available.

2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substance/Preparation information

Substance name: 1,1,1,2,3,3,3-heptafluoropropane

CAS No.: 431-89-0

EC No.: 207-079-2

Purity: $\geq 99.9\%$

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

In all cases of doubt, or when symptoms persist, seek medical attention.

Following inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Following skin contact:

Remove and isolate contaminated clothing and shoes. In case of contact with liquefied gas, thaw frosted parts with lukewarm water.

Following eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

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Following ingestion:

Ingestion is not a normal route of exposure for gases.

4.2 Most important symptoms and effects, both acute and delayed

Acts as a simple asphyxiant. Contact with rapidly expanding gas may cause burns or frostbite.

4.3 Indication of the immediate medical attention and special treatment needed

No information available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Heptafluoropropane is a fire extinguishing media. Use media appropriate for surrounding material.

Unsuitable extinguishing media: No information available.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating or toxic gases/vapors: carbon oxides, halogenated compounds.

Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

5.3 Advice for fire-fighters

Wear self-contained breathing apparatus with a full face-piece operated in positive pressure mode and chemical-protective clothing. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Refer to SECTION 8 for personal protective equipment. Prevention of skin and eye contact. Ensure adequate ventilation. Remove all sources of ignition. Shut off gas supply if this can be done safely. Isolate area until gas has dispersed.

6.2 Environmental precautions

Do not discharge into drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Evacuate area. Keep upwind. Stop leak if without risk. Ventilate area especially low places remove open flames and heating elements. Disperse gas with floor level forced air.

6.4 Reference to other SECTIONS

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See SECTION 7 for information on safe handling.

See SECTION 8 for information on personal protection equipment.

See SECTION 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed and in a cool, well-ventilated place. Keep out of direct sunlight. Keep away from heat and ignition sources.

7.3 Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8 : Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

Not established.

DNEL (Derived No Effect Level) for workers and the general population:

Not available.

PNEC (Predicted No Effect Concentration) values:

Not available.

8.2 Exposure controls

Appropriate engineering controls:

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protective equipment:

Eye and face protection: Safety glasses/chemical splash goggles.

Skin protection: Wear protective gloves/clothing to prevent contact.

Respiratory protection: In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls:

Do not empty into drains.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|-------------------------|
| Appearance: | Liquefied gas |
| Color: | colorless |
| Odour: | inodorous |
| pH: | Not available. |
| Melting point: | Not available. |
| Boiling point: | -16.36 °C |
| Flash point: | Not available. |
| Evaporation rate: | Not available. |
| Flammability (solid, gas): | Not flammable. |
| Upper/lower flammability or explosive limits: | Not available. |
| Vapour pressure: | 457.7 Kpa (25°C) |
| Density: | 1.388 g/cm ³ |
| Solubility(ies): | Not available. |
| Partition coefficient: n-octanol/water: | log Kow = 2.11 |
| Auto-ignition temperature: | Not available. |
| Viscosity: | 0.226 mPa.s (25°C) |
| Explosive properties: | Not available. |
| Oxidising properties: | Not available. |

9.2 Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage and handling conditions (see SECTION 7, handling and storage).

10.2 Chemical stability

Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat and ignition sources. Protect from sunlight.

10.5 Incompatible materials

Strong oxidizing materials.

10.6 Hazardous decomposition products

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Thermal decomposition can lead to release of irritating or toxic gases/vapors: carbon oxides, halogenated compounds.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

| | | |
|---|-------------------------------------|---------------------------|
| Acute toxicity | Oral, LD₅₀ : | No data available. |
| | Inhalation, LC₅₀: | 788698 ppm/4h (rat). |
| | Dermal, LD₅₀: | No data available. |
| Skin corrosion/irritation: | | No information available. |
| Serious eye damage/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. |
| Aspiration hazard: | | No information available. |

SECTION 12: Ecological information

12.1 Toxicity

| | | |
|--------------------|------------------------------------|--------------------|
| Ecotoxicity | Fish, LC₅₀: | No data available. |
| | Crustacea, EC₅₀: | No data available. |
| | Algae, EC₅₀: | No data available. |

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Bioaccumulation is not expected (Log Kow < 3).

12.4 Mobility in soil

No information available.

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12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal must be made according to local and national regulations. Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14: Transport information

14.1 Land transport (ADR)

Proper Shipping Name: HEPTAFLUOROPROPANE
Class: 2.2
UN-No.: 3296

14.2 Sea transport (IMDG)

Proper Shipping Name: HEPTAFLUOROPROPANE
Class: 2.2
UN-No.: 3296
Marine pollutant: No

14.3 Air transport (IATA)

Proper Shipping Name: HEPTAFLUOROPROPANE
Class: 2.2
UN-No.: 3296

14.4 Additional information

Mark/Label(s) for transport:



SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulation:

Authorisations: No information available.

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Restrictions on use: No information available.
EINECS: CAS# 431-89-0 is listed in.
DSD (67/548/EEC): CAS# 431-89-0 is not listed in.

Other chemical regulation:

| CAS No. | USA TSCA | Canada DSL | Australia AICS | Korea ECL | Japan ENCS | China IECSC |
|----------|-------------|---------------|-------------------|--------------|---------------|----------------|
| 431-89-0 | Listed | Listed | Listed | Listed | Listed | Listed |

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this product.

SECTION 16: Other information

16.1 Revision Information

Date of the previous revision: Not applicable.

Date of this revision: 06/08/2012.

Revision summary: The first new SDS

16.2 Abbreviations and acronyms

CLP: EU regulation (EC) No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
EINECS: European Inventory of Existing Commercial Chemical Substances.
DSD: Dangerous Substance Directive (67/548/EEC).
TSCA: Toxic Substances Control Act, The American chemical inventory.
DSL: Domestic Substances List, The Canadian chemical inventory.
AICS: The Australian Inventory of Chemical Substances.
ECL: Existing Chemicals List, the Korean chemical inventory.
ENCS: Japanese Existing and New Chemical Substances.
IECSC: Inventory of existing chemical substances in China.

16.3 Key literature references and sources for data

GESTIS-database: Information system on hazardous substances of the German Social Accident Insurance.
ECHA's public database with information on registered substances.

16.4 Relevant R-phrases/H-statements

H280: Contains gas under pressure; may explode if heated.

16.5 Training advice

Provide adequate information, instruction and training for operators.

16.6 Declare to reader

The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety

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preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage. According to REACH Article 31(5), the SDS shall be supplied in an official language of the Member State(s) where the substance or mixture is placed on the market, unless the recipient Member State(s) concerned provide otherwise. It should also be noted that this SDS is applicable to the countries with English as an official language.

----- End of the SDS -----