

# Safety Data Sheet

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

Version: 4.1/EN  
Product name: HFC125

Prepared date: 07/05/2021  
Revision date: 07/05/2021

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

### 1.1 Product identifier

Product name: HFC125  
REACH Reg. No.: Pre-registration No. 17-211998XXXX-XX-XXXX  
CAS No.: 354-33-6

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

Identified uses: Used as 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@waysmos.com  
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]  
Compressed 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-phrase(s)/H-statement(s): 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: Pentafluoroethane  
Index No.: None  
CAS No.: 354-33-6  
EC No.: 206-557-8  
Purity: >99.8%

## 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 to fresh air. Oxygen or artificial respiration if needed. If symptoms persist, call a physician.

Following skin contact:

Allow to evaporate. Rinse with lukewarm running water. If symptoms persist, call a physician.

Following eye contact:

Keep eyelids open to allow evaporation of product. Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

Following ingestion:

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Ingestion is not considered a potential route of exposure.

## 4.2 Most important symptoms and effects, both acute and delayed

### **Inhalation:**

In case of higher concentrations: narcosis, asphyxia, may cause cardiac arrhythmia.

### **Skin contact:**

Contact with liquid or refrigerated gas can cause cold burns and frostbite.

Prolonged skin contact may defat the skin and produce dermatitis.

### **Eye contact:**

Severe eye irritation.

Causes frostbite burns to eyes.

Symptoms: Lachrymation, Redness, Swelling of tissue, Frostbite, Burn.

## 4.3 Indication of the immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment, e.g. water spray.

**Unsuitable extinguishing media:** No information available.

### 5.2 Special hazards arising from the substance or mixture

Heating can release hazardous gases.

Gas/vapours combustion possible in presence of air in very particular conditions

### 5.3 Advice for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Fire fighters must wear fire resistant personnel protective equipment.

Wear chemical resistant oversuit.

Protect intervention team with a water spray as they approach the fire.

Clean contaminated surface thoroughly.

Approach from upwind.

Evacuate personnel to safe areas.

Keep containers and surroundings cool with water spray.

After the fire, proceed rapidly with cleaning of surfaces exposed to the fumes in order to limit equipment damage.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### **Advice for non-emergency personnel**

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Prevent further leakage or spillage if safe to do so.

Keep away from Incompatible products.

### **Advice for emergency responders**

Approach from upwind.

Suppress (knock down) gases/vapours/mists with a water spray jet.

Avoid spraying the leak source.

Try to re-position leaking containers, to have the leak in the gaseous phase.

Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.

Keep away from open flames, hot surfaces and sources of ignition.

### **6.2 Environmental precautions**

Should not be released into the environment. In accordance with local and national regulations.

### **6.3 Methods and material for containment and cleaning up**

Allow to evaporate.

Prevent product from entering drains.

### **6.4 Reference to other SECTIONS**

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**

Use only in well-ventilated areas.

Prevent product vapours decomposition from contacting hot spots.

Prevent product vapours decomposition from electric arc action (welding).

Keep away from heat.

Keep away from Incompatible products.

When using, do not eat, drink or smoke.

Gloves, overalls and boots have to be double layered (protection against cold temperature).

Handle in accordance with good industrial hygiene and safety practice.

### **7.2 Conditions for safe storage, including any incompatibilities**

Keep in a well-ventilated place.

Store in original container.

Keep away from Incompatible products.

#### **Packaging material**

Suitable material: Steel drum

### **7.3 Specific end use(s)**

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

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## SECTION 8 : Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values:

8-h TWA WEEL: 1000 ppm. American Industrial Hygiene Association, Workplace Environmental Exposure Limit (WEEL) Committee.

#### 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:

Ensure adequate ventilation.  
Apply technical measures to comply with the occupational exposure limits.

#### Personal protective equipment:

Eye and face protection: Chemical resistant goggles must be worn.  
If splashes are likely to occur, wear: Face-shield.

Skin protection: **Hand protection**  
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).  
Protective gloves  
Suitable material: Fluoroelastomer

**Skin and body protection**  
Wear suitable protective clothing.  
If splashes are likely to occur, wear: Apron, Boots, Neoprene

Respiratory protection: Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.  
Use only respiratory protection that conforms to international/ national standards.

#### Environmental exposure controls:

Do not empty into drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance: Colorless gaseous at 20°C and 1013 hPa

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<b>Odour:</b>	other: faint ethereal odour
<b>pH:</b>	Not available.
<b>Melting point:</b>	-103 °C
<b>Boiling point:</b>	-68.5 °C
<b>Flash point:</b>	Not available.
<b>Evaporation rate:</b>	Not available.
<b>Flammability (solid, gas):</b>	Non flammable
<b>Upper/lower flammability or explosive limits:</b>	The substance has no lower and upper flammability limit in air.
<b>Vapour pressure:</b>	1375.8 kPa at 298.15 K
<b>Density:</b>	5.36 g/L at 25 °C
<b>Solubility(ies):</b>	Moderately soluble in water
<b>Partition coefficient: n-octanol/water:</b>	log Pow= 1.55 (at 20 °C)
<b>Auto-ignition temperature:</b>	Product is not self-igniting.
<b>Decomposition temperature:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Explosive properties:</b>	May explode if heated.
<b>Oxidising properties:</b>	Not available.

## 9.2 Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Decomposes on heating.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Strong oxidizers, alkali metals and alkaline earth metals may cause fires or explosions.

### 10.4 Conditions to avoid

Avoid open flames and high temperatures.

### 10.5 Incompatible materials

Light and/or alkaline metals, Powdered metals, Alkaline earth metals, Oxidizing agents.

### 10.6 Hazardous decomposition products

Gaseous hydrogen fluoride (HF), Fluorophosgene

The release of other hazardous decomposition products is possible.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

No data available.

**Skin corrosion/irritation:**

Product is not irritating to skin.

**Serious eye damage/irritation:**

Product is not irritating to eyes.

**Respiratory or skin sensitization:**

Product is not sensitizing.

**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

Invertebrates: EC50 > 200 mg/L/48 h (Daphnia magna)

Algae and cyanobacteria: EC50 = 142 mg/L/96 h (green algae)

### 12.2 Persistence and degradability

Product is not readily biodegradable.

### 12.3 Bioaccumulative potential

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Bioaccumulation is not expected (Log Kow < 3).

## 12.4 Mobility in soil

No information available.

## 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

#### Waste disposal methods

In accordance with local and national regulations.

Refer to manufacturer/supplier for information on recovery/recycling.

#### Contaminated packaging

To avoid treatments, as far as possible, use dedicated containers

## SECTION 14: Transport information

14.1 UN Number	3220
14.2 UN proper shipping name	PENTAFLUOROETHANE (REFRIGERANT GAS R 125)
14.3 Transport hazard class(es)	2.2
14.4 Packing group	None
14.5 Environmental hazards	Product is not marine pollutant.
14.6 Special precautions for user	No information available.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	The product is not intended to be transport in bulk.

## SECTION 15: Regulatory information

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

#### EU regulation:

Authorisations: Not applicable.



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Restrictions on use: Not applicable.  
EINECS: CAS#354-33-6 is listed.

## Other chemical regulation:

CAS No.	USA TSCA	Canada DSL	Australia AICS	Korea ECL	China IECSC
354-33-6	Listed	Listed	Listed	Listed	Listed
Remark: The above-mentioned search results are based on the Non-Confidential Inventory.					

## 15.2 Chemical Safety Assessment

Chemical Safety Assessment has not been carried out for this product.

## SECTION 16: Other information

### 16.1 Revision Information

Date of the previous revision: 27/02/2020.

Date of this revision: 07/05/2021.

Revision summary: version 4.1

### 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.
- IECSC:** Inventory of existing chemical substances in China.

### 16.3 Key literature references and sources for data

Provided by company.

### 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 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,

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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 -----