



Zhejiang Fotech International Co., Ltd  
**Material Safety Data Sheet**

**1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION**

**MATERIAL IDENTIFICATION**

MSDS Number: FOTECH018  
Formula: CF<sub>3</sub>CH<sub>2</sub>CHF<sub>2</sub> Molecular Weight: 134

**TRADENAMES AND SYNONYMS**

Pentafluoropropane R245fa

**COMPANY IDENTIFICATION**

**MANUFACTURER/DISTRIBUTOR' NAME**

Zhejiang Fotech International Co., Ltd.  
No.139, Renmin West RD., Jinhua, Zhejiang, P.R. China-321000

**PHONE NUMBERS**

Product Information: +86-571-87918266  
Medical Emergency: +86-571-87085066

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

**COMPONENTS:**

Material:	1,1,1,3,3-pentafluoropropane
CAS Nr:	460-73-1
EC Nr (from EINECS)	419-170-6

**3. HAZARDS IDENTIFICATION**

**HAZARDS IDENTIFICATION**

In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination. In high concentrations may cause



asphyxiation. Symptoms may include loss of mobility/ consciousness, victim may not be aware of asphyxiation.

## **4. FIRST AID MEASURES**

### **INHALATION**

Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

### **SKIN/EYE CONTACT**

For liquid spillage - flush with water for at least 15 minutes. Immediately flush eyes thoroughly with water for at least 15 minutes. Obtain medical assistance

### **INGESTION**

Ingestion is not considered a potential route of exposure.

## **5. FIRE-FIGHTING MEASURES**

### **SPECIFIC HAZARDS**

Exposure to fire may cause containers to rupture/explode.  
Non flammable

### **HAZARDOUS COMBUSTION PRODUCTS**

If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition: Hydrogen fluoride, Carbon monoxide and Carbonyl fluoride

### **SUITABLE EXTINGUISHING MEDIA**

All known extinguishants can be used.

### **SPECIFIC METHODS**

If possible, stop flow of product.  
Move away from the container and cool with water from a protected position.

### **SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS**

Use self-contained breathing apparatus and chemically protective clothing.



## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Evacuate area.

Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

Ensure adequate air ventilation.

### ENVIRONMENTAL PRECAUTIONS

Try to stop release.

Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous.

### CLEAN UP METHODS

Ventilate area.

Absorb excess liquid spillage on inorganic absorbent material such as fine sand, brick dust etc.

Place spent absorbent in sealed packages and contact specialist waste disposal contractor.

## 7. HANDLING AND STORAGE

### HANDLING AND STORAGE

Suck back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Refer to supplier's container handling instructions. Keep container below 50°C in a well ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### PERSONAL PROTECTION

Ensure adequate ventilation.

Do not smoke while handling product.

Protect eyes, face and skin from liquid splashes.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Molecular weight:</b>	134
<b>Boiling point:</b>	15.3 °C
<b>Relative density, gas:</b>	4.6 (air=1)
<b>Relative density, liquid:</b>	1.35 (water=1)
<b>Vapour Pressure: 20°C</b>	1.24 bar(a).
<b>Solubility mg/l water:</b>	130 mg/l
<b>Appearance/Colour:</b>	Colorless gas
<b>Odour:</b>	No odour warning properties.
<b>Autoignition temperature:</b>	412 °C
<b>Other data:</b>	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

## 10. STABILITY AND REACTIVITY

### STABILITY AND REACTIVITY

Stable under normal conditions. Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.

## 11. TOXICOLOGICAL INFORMATION

### GENERAL

In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.

May produce irregular heart beat and nervous symptoms.

## 12. ECOLOGICAL INFORMATION

### GENERAL

When discharged in large quantities may contribute to the greenhouse effect.

### GLOBAL WARMING FACTOR

950 (CO<sub>2</sub>=1)



## 13. DISPOSAL CONSIDERATIONS

### GENERAL

Avoid discharge to atmosphere. Do not discharge into any place where its accumulation could be dangerous. Refer to supplier's waste gas recovery programme. Contact supplier if guidance is required.

## 14. TRANSPORT INFORMATION

**Proper shipping name:** 1,1,1,3,3,-Pentafluoropropane HFC-245fa

**UN Nr:** 3163

**Class:** 2

**Packing group:** None

**Other transport information:**

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured and:

- Cylinder valve is closed and not leaking
- Valve outlet cap nut or plug (where provided) is correctly fitted
- Valve protection device (where provided) is correctly fitted
- There is adequate ventilation.
- Compliance with applicable regulations.

## 15. REGULATORY INFORMATION

**Number in Annex I of Dir 67/548:** Not included in Annex I.

**EC Classification:** Not classified as dangerous preparation.

**Labelling of cylinders:**

**Symbols:** Label 2.2: non flammable non toxic gas

## 16. OTHER INFORMATION

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product that conforms to the specification, unless otherwise stated. In the case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and environment.



**浙江孚泰科技有限公司**  
**ZHEJIANG FOTECH INTERNATIONAL CO., LTD.**

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**Responsibility for MSDS: MSDS Coordinator**

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**Telephone: +86-571-87918266**

**Indicates updated section.**

**End of MSDS**