



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

**1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION**

**MATERIAL IDENTIFICATION**

MSDS Number: FOTECH016      Formula: CF<sub>3</sub>CH<sub>2</sub>CF<sub>3</sub>  
Molecular Weight: 152

**TRADENAMES AND SYNONYMS**

1, 1, 1, 3, 3, 3-Hexafluoropropane      HFC-236fa

**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/INFROMATION ON INGREDIENTS**

**COMPONENTS**

Material: 1, 1, 1, 3, 3, 3-Hexafluoropropane  
CAS Number: 690-39-1

**3. HAZARDS IDENTIFICATION**

**Potential Health Effects**

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

### SKIN CONTACT

In case of contact, flush with water. Get medical attention if irritation is present.

### EYES CONTACT

In case of liquid contact, immediately flush eyes with plenty of water for 15 minutes.  
Call a physician.

### 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.

### 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.

### EXTINGUISHING MEDIA

All known extinguish ants can be used.

### FIRE FIGHTING INSTRUCTIONS

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.

## 7. HANDLING AND STORAGE

### GENERAL

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

### Engineering Controls

Use only with adequate ventilation. Keep container tightly closed. Vapors are heavier than air posing a hazard of asphyxia if they are trapped in enclosed or low places.

### Personal Protection

Ensure adequate ventilation. Do not smoke while handling product. Protect eyes, face and skin from liquid splashes.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical Data

Boiling point	-2 °C
Critical temperature	125 °C



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Relative density, gas	5.2 (air=1)
Relative density, liquid	1.38 (water=1)
Vapour Pressure 20°C	2.3 bar(a).
Solubility mg/l water	724 mg/l
Appearance/Colour	Colourless gas
Odor	No odor warning properties.
Other data	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

## 10. STABILITY AND REACTIVITY

### General

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

6300 (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

### Shipping Information

UN Nr: 3163

Class: 2.0

#### Shipping Containers

Cylinders

Ton Tanks

Tank Trucks

### 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.

Labeling 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.

Responsibility for MSDS: MSDS Coordinator

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Indicates updated section.

End of MSDS