



Zhejiang Fotech International Co., Ltd
Material Safety Data Sheet

1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

MATERIAL IDENTIFICATION

MSDS Number: FOTECH019
Formula: C₃H_F7 Molecular Weight: 170

TRADENAMES AND SYNONYMS

1,1,1,2,3,3,3-Heptafluoropropane R227ea

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:	1,1,1,2,3,3,3-Heptafluoropropane
CAS Nr:	431-89-0
EC Nr (from EINECS)	207-079-2

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 extinguish ants 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.

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

Molecular weight:	170
Boiling point:	-17.3 °C
Relative density, gas:	5.9 (air=1)
Relative density, liquid:	1.4 (water=1)



Vapor Pressure: 20°C	4 bar(a).
Solubility mg/l water:	No reliable data available
Appearance/Color:	Colorless gas
Odor:	Ethereal. Poor warning properties at low concentrations.
Other data:	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

No known toxicological effects from this product.

12. ECOLOGICAL INFORMATION

Ecological effects information

No known ecological damage caused by this product.

Effect on ozone layer

Not covered by the "Montreal Protocol"

GLOBAL WARMING FACTOR

2900 (CO₂=1)

13. DISPOSAL CONSIDERATIONS

GENERAL

Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.



14. TRANSPORT INFORMATION

Proper shipping name: 1,1,1,2,3,3,3-Heptafluoropropane R227ea

UN Nr: 3296

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

EC Classification: Not included in Annex I. Not classified as dangerous preparation/substance.

EC Labelling: No EC labeling required.

- **Symbol(s):** None.
- **R Phrase(s):** None.
- **S Phrase(s):** None.

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

Zhejiang Fotech International Co., Ltd.

No.139, Renmin West Rd., Jinhua, Zhejiang, P.R. China – 321000

Telephone: +86-571-87918266

Indicates updated section.

End of MSDS