



Zhejiang Fotech International Co., Ltd
Material Safety Data Sheet

1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

MATERIAL IDENTIFICATION

MSDS Number: FOTECH008

Formula: CHCL2F3

Molecular Weight:

TRADENAMES AND SYNONYMS

2, 2-dichloro-1, 1, 1-trifluoroethane (HCFC-123)

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: 2, 2-dichloro-1, 1, 1-trifluoro-, Ethane

CAS Number: 306-83-2

Purity: 99.8%

3. HAZARDS IDENTIFICATION

Potential Health Effects

Inhalation of high concentrations of vapor is harmful and may cause heart irregularities, unconsciousness, or death. Intentional misuse or deliberate inhalation may cause death



without warning. Vapor reduces oxygen available for breathing and is heavier than air. Product causes mild eye irritation. Decomposition products are hazardous.

HUMAN HEALTH EFFECTS

Eye contact may cause irritation with discomfort, tearing, or blurring of vision. Overexposure by inhalation may cause liver damage with altered enzyme levels, and temporary nervous system depression with anesthetic effects such as dizziness, weakness, headache, confusion, in-coordination, and loss of consciousness. With overexposure (>2%), possibly temporary alteration of the heart's electrical activity with irregular pulse, palpitations, or inadequate circulation. Increased susceptibility to the effects of this material may be observed in persons with pre-existing disease of the central nervous system, cardiovascular system, and liver.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

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

Immediately remove to fresh air. Keep person calm. Call a physician. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

INGESTION

Material poses an aspiration hazard. If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration.

ADVICE TO PHYSICIAN

THIS MATERIAL MAY MAKE THE HEART MORE SUSCEPTIBLE TO



ARRHYTHMIAS. Catecholamines such as adrenaline, and other compounds having similar effects, should be reserved for emergencies and then used only with special caution.

5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: No flash point

Flammable Limits in air, % by Volume:

LEL: None per ASTM E681

UEL: None per ASTM E681

Autoignition: Not determined

EXTINGUISHING MEDIA

Use media appropriate for surrounding material.

FIRE FIGHTING INSTRUCTIONS

Cool tank/container with water spray. Self-contained breathing apparatus (SCBA) is required if drums rupture and contents are spilled under fire conditions.

Water runoff should be contained and neutralized prior to release.

6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Ventilate spill area.

Initial Containment

Dike spill. Prevent material from entering sewers, waterways, or low areas.

Spill Clean Up

Collect on absorbent material and transfer to steel drums for recovery/disposal. Comply with Federal, State, and local regulations for reporting releases.

7. HANDLING AND STORAGE



HANDLING (PERSONNEL)

Avoid breathing high concentrations of vapor. Provide adequate ventilation for storage, handling, and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure.

HANDLING (PHYSICAL ASPECTS)

Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

STORAGE

Store in a clean, dry place.

Do not heat above 52 deg C to avoid over pressurizing the container.

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 Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses or coverall chemical splash goggles.

RESPIRATORS

Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH approved respiratory protection.

PROTECTIVE CLOTHING

Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point:	27.6 C (81.7 F) @ 760 mm Hg
Vapor Pressure:	13 psig at 25 C (77 F)
Vapor Density:	5.3 (Air = 1.0)
% Volatiles:	100 WT%
Evaporation Rate :	<1 (CCl4=1.0)
Solubility in Water:	0.39 WT% @ 25 C (77 F)



PH:	Neutral
Odor:	Slight ethereal
Form:	Liquid
Color:	Clear, colorless
Liquid Density:	1.46 g/cm ³ @ 25 C (77 F)

10. STABILITY AND REACTIVITY

Chemical Stability

Stable

Conditions to Avoid

Avoid open flames and high temperatures.

Incompatibility with Other Materials

Incompatible with alkali or alkaline earth metals – powdered Al, Zn, Be, etc.

Decomposition

Decomposition products are hazardous. This material can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming HF, COF₂, or CO.

These materials are toxic and irritating. Contact should be avoided.

Polymerization

Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Animal Data

HCFC-123

Dermal ALD, rabbit: >2000 mg/kg

Oral ALD, rat: 9000 mg/kg

Inhalation 4 hour, LC50, rat: 32,000 ppm

Animal testing indicates that HCFC-123 is not a skin irritant or skin sensitizer, but is a mild to moderate eye irritant.

Toxic effects noted in animals from single exposure by inhalation at concentrations of 5000 ppm or greater include effects on unconditioned reflexes, locomotor activity and coordination, suggesting anesthetic effects. Single inhalation exposures caused central nervous system effects, such as anesthesia, and nonspecific clinical signs and organ pathology changes. Cardiac sensitization occurred in dogs at concentrations of 20,000 ppm and greater.

Repeated exposures to 300 ppm and higher resulted in decreased cholesterol,



triglycerides or glucose, and increased urinary fluoride levels. At 5000 ppm or greater, anesthetic effects, reduced lymphocyte counts, organ weight changes, including increased liver weight, and enzyme alterations, and decreased body weight gain were observed. Exposure to dogs, guinea pigs or monkeys at 1000 ppm or greater induced slight or mild liver damage. HCFC-123 was not neurotoxic in animals repeatedly exposed by inhalation at concentrations up to 5,000 ppm, but did cause a slight decrease in arousal at this concentration.

Long-term exposure caused decreased body weight, decreased cholesterol, triglycerides and glucose, and increased urinary fluoride concentrations in rats. Inhalation of 300, 1000 or 5000 ppm for two years caused an increase in benign testicular tumors in male rats. An increase in benign pancreatic and liver tumors was observed in rats exposed to 1000 or 5000 ppm. The tumors were late-occurring and none were judged to be life-threatening. The biological significance of these tumors to man is considered to be limited. Additionally, evidence of retinal atrophy was observed in this two-year study in both treated and control animals, although the toxicological significance is undetermined.

Animal data indicate that HCFC-123 does not affect reproductive performance in rats or harm the unborn animal. HCFC-123 does not produce genetic damage in bacterial cell cultures or in animals. In two studies, genetic damage was produced in mammalian cell cultures, but did not produce genetic damage in another study. Overall weight of evidence indicates that HCFC-123 is not mutagenic.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY:

Slightly toxic.

96 hour LC50 - Fathead minnows: > 77 mg/L

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Recover by distillation or remove to a permitted waste disposal facility. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14. TRANSPORT INFORMATION

Shipping Information



Not regulated as a hazardous material by DOT or IMO.

Shipping Containers

Cylinders

Ton Tanks

Tank Trucks

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status: Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute: Yes

Chronic: No

Fire: No

Reactivity: No

Pressure: No

HAZARDOUS CHEMICAL LISTS

SARA Extremely

Hazardous Substance - No

CERCLA Hazardous Substance - No

SARA Toxic Chemical - No

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.



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

End of MSDS