Material Safety Data Sheet

This MSDS adheres to the standards and regulatory requirements of China and may not meet the regulatory requirements in other countries.

SECTION I – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: R-508B

Supplier: SINOCHEM LANTIAN FLUORO MATERIALS CO.,LTD
Address: NO.1 JINGJIU ROAD, HANGZHOU BAY SHANGYU ECONOMIC AND TECHNOLOGICAL DEVELOPMENT AREA,312369 ZHEJIANG CHINA
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SECTION II – COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS NUMBER	WEIGHT %
TRIFLUOROMETHANE （R23）	75-46-7	46 % (± 1 %)
HEXAFLUOROETHANE (R116)	76-16-4	54 % (± 1 %)

SECTION III – HAZARDS IDENTIFICATION

Potential Health Effects:

Inhalation of high concentrations of vapor is harmful and may cause heart irregularities, unconsciousness, or death. Intentional misuse can be fatal. Vapor reduces oxygen available for breathing and is heavier than air. Liquid contact can cause frostbite.

Human Health Effects:

Human health effects of overexposure by inhalation may include nonspecific discomfort such as nausea, headache, or weakness; temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, and loss of consciousness; or with gross overexposure, possibly temporary alteration of the heart's electrical activity with irregular pulse, palpitations, or inadequate circulation. Individuals with preexisting diseases of the central nervous or cardiovascular system may have increased susceptibility to the toxicity of excessive exposures. Eye or skin contact with the liquid may cause frostbite.

SECTION IV – FIRST AID MEASURES

First Aid

IF HIGH CONCENTRATIONS ARE INHALED: Immediately remove to fresh air. Keep persons calm. Call a physician. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

IN CASE OF SKIN CONTACT: Flush with water. Treat for frostbite if necessary.

IN CASE OF EYE CONTACT: Flush with water. Call a physician if frostbite occurs.

IF SWALLOWED: Ingestion is not considered a potential route of exposure.

Notes to Physicians

Because of possible disturbances of cardiac rhythm, catecholamine drugs, such an epinephrine, should be considered only as a last resort in life-threatening emergencies.

SECTION V – FIRE FIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide (CO2), Powders, Foam, Water spray

Unsuitable extinguishing media: None to our knowledge. If there is a fire close by, use suitable extinguishing agents.

Specific hazards: On Heating: Toxic and corrosive vapors are released.

Specific fire fighting methods: Cool down the containers exposed to heat with a water spray.

Protection of fire-fighters: Self-contained breathing apparatus. Complete protective clothing.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal precautions:

Do not attempt to take action without suitable protective equipment.

Avoid contact with skin and eyes. Do not breathe vapors.

Evacuate the danger area. Stop the leak. Remove all sources of ignition.

Mechanically ventilate the spillage area.

Clean up methods:

Cleaning/decontamination: Allow the residual product to evaporate.

SECTION VII – HANDLING AND STORAGE

Handling (Personnel):

Avoid contact of liquid with eyes and prolonged skin exposure. Use with sufficient ventilation to keep employee exposure below recommended limits.

Storage:

Clean, dry area. Do not heat above 51.7 deg. C (125 deg. F)

Packaging materials:

- Recommended: Ordinary steel. Stainless steel Aluminum.
- Not suitable: Alloys containing more than 2% magnesium

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures :

- Ensure good ventilation of the work station

Occupational Exposure Limits :

- France : R-23 : VME : 1000 ppm (recommended)

Personal protection :

- Respiratory protection : In the event of insufficient ventilation: Mask with AX canister

In a confined area : Self-contained breathing apparatus (ARI)

- Hand protection : Leather or nitrile-rubber protective gloves
- Eye protection : Safety spectacles with side shields
- Skin protection : Majority cotton clothing Safety foot-wear

SECTION IX – PHYSICAL & CHEMICAL PROPERTIES

Appearance: Gas at ambient temperatures
Color/Colour: Colorless/colourless
Odor/Odour: Slightly ethereal.
Molecular Weight: 95.4 averages
Boiling Point: - 87.4 °C
pH: Not applicable
Vapor Pressure: 27.7 bar at 0 °C
Vapor Density (air=1):6.49 (25 ℃)
Application: Refrigerant.

SECTION X – STABILITY AND REACTIVITY

Chemical Stability

Material is stable. However, avoid open flames and high temperatures.

Decomposition

This product 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.

SECTION XI – TOXICOLOGICAL INFORMATION

Acute symptoms:

Drowsiness, Headaches, Dizziness, Loss of consciousness.

Cardiac disorders

Local effects :

Contact with liquefied gas may cause frostbite. Contact with liquefied gas may cause severe ocular lesions

SECTION XII – ECOLOGICAL INFORMATION

MOBILITY :

Volatility : In aqueous medium :

R-23: Rapid evaporation: Half-life = 2.5 h

Adsorption: R-23: Product adsorbs little onto the soil

DEGRADABILITY:

Biodegradability : No easy biodegradable

R-23: Air: Half-life = 9036 days

Water: Not biodegradable

BIOACCUMULATION:

Octanol/water partition coefficient: Practically not bioaccumulable

R-23 : 0.64

OTHER ADVERSE EFFECTS:

Ozone depletion potential: ODP (R-11=1)=0

Greenhouse effect : R-23 : GWP (CO2=1/100 years) = 12000

R-116 : GWP (CO2=1/100 years) = 11900

SECTION XIII – DISPOSAL CONSIDERATIONS

Nature of the Waste: Not a RCRA hazardous waste.

Waste Treatment: Waste from residues / unused products: Can be used after re-conditioning. Product removed from the cylinder must be disposed of in accordance with appropriate National and local regulation. Return cylinders with residual product to the supplier.(FLTCO)

SECTION XIV – TRANSPORT INFORMATION

Proper Shipping Name: FLUOROSILICIC ACID/REFRIGERANT GAS,N.O.S

(Trifluoromethane (R-23) & Hexafluoroethane (R-116))

Hazard Class : 2.2.

UN-No. : 3163

Packing Method: Steel Cylinders or Ton Tanks

SECTION XV – REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

SECTION XV – REGULATORY INFORMATION (cont.)

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes

Chronic : No

Fire : No

Reactivity : No

Pressure : Yes [1996]), are enacted to control the safe use, production, storage, transport, operation, trade and disposal of dangerous chemicals.

SECTION XVI – OTHER INFORMATION

Sources of key data used to compile the datasheet:

* Material Safety Data Sheet/"SUVA" 95 -R508B, DuPont. (MSDS No. DU008080)
* Material Safety Data Sheet/CLIMALIFE(R-508B), (MSDS Supersedes : 9/2/2004)

Department: Foreign Trade Dept; Enviroment, Safety and Quality Management Dept.
Zhejiang Lantian Environmental Protection Hi-Tech Co.,Ltd.

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The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. It is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

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