



## MATERIAL SAFETY DATA SHEETS

369

Methanesulphonyl fluoride

### 1. CHEMICAL IDENTITY

**Chemical Name :** Methanesulphonyl fluoride

**Chemical Classification:** Toxic

**Trade Name :**

**Synonyms:** Fumette, Fluoro methyl sulfone, Mesyl fluoride, MSF,

**Formula :** CH<sub>3</sub>FO<sub>2</sub>S

**CAS No:** 558-25-8

**UN No:** 2927

### Regulated Identification

**Shipping Name :** Poisonous liquid

**Hazchem Code :** 2XE

**Codes / Label :** Class 6.1, Toxic

**Hazardous Waste ID No :** 6

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
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1 Methanesulphonyl fluoride

558-25-8

3

2

4

### 2. PHYSICAL / CHEMICAL DATA

**Boiling Pt. °C:** 123-124

**Physical State:** Liquid

**Appearance:** Clear colourless liquid.

**Melting Pt °C:**

**Vapour Pressure @ 35°C mmHg:**

**Odour:**

**Vapour Density(Air =1):**

**Solubility in water at 30°C g/100ml:** Soluble

**Others:** Soluble in organic solvents

**Specific Gravity (Water =1 ):** Not 1.20006 g/cm<sup>3</sup> (19.5 deg C)

**pH :**

### 3. FIRE / EXPLOSION HAZARD DATA

**Flammability :** No

**LEL:**

**Flash Point °C in OC:**

**TDG Flammability:**

**UEL:**

**Flash Point °C in CC:**

**Autoignition Temperature °C :**

**Explosion sensitivity to impact:**

**Explosion sensitivity to static Electricity:**

**Hazardous Combustion Products :** When heated to decomposition toxic gases and vapours (SO<sub>x</sub>, F) are released.

**Hazardous Polymerization :**

**Combustible Liquid:** No

**Explosive Material:** No

**Corrosive Material** Yes

**Flammable Material:** No

**Oxidiser :** No

**Others:**

**Pyrophoric Material:** No

**Organic Peroxide :** No

### 4. REACTIVITY DATA

**Chemical Stability :** Stable, moisture sensitive

**Incompatibility with other material :** Strong bases, oxidizing agents, alcohols.

**Reactivity :**

**Hazardous** :  
**Reaction Products**

## 5. HEALTH HAZARD DATA

**Routes of entry:** Inhalation, Skin & Eyes, Ingestion

### Effects of Exposure / Symptoms:

It is corrosive and lachrymator. Causes destruction to the tissue of the mucous membranes, upper respiratory tract, eyes and skin. Inhalation may be fatal as a result of inflammation and oedema of the larynx and bronchi. Symptoms of exposure may include burning sensation, coughing, shortness of breath, nausea, vomiting. Repeated exposure may cause asthma.

### Emergency Treatment :

**Inhalation:** Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. If there is breathing difficulty, give oxygen and keep the person warm and at rest.

**Skin:** Flood the affected body with water and remove the contaminated clothing. Wash the affected skin thoroughly with soap and water.

**Eyes:** Flush and irrigate eyes with copious quantities of water for at least 15 mins.

**Ingestion:** If ingested, wash out mouth thoroughly with water. Seek immediate medical aid. Do not induce vomiting.

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**LD50 (oral-rat) mg/kg:** 2 mg/kg

**STEL:**

**LC50 (rat) mg/kg:** 140 mg/m<sup>3</sup>/4h

**Odour Threshold:**

**Permissible  
Exposure Limit:**

**TLV (ACGIH) :**

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NFPA Hazard	Health	Flammability	Reactivity	Special
Signals	4	0	1	

## 6. PREVENTIVE MEASURES

**Personal Protective Equipment :** Impervious clothing, gloves, face-shields, splash-proof goggles and respirator

**Handling :** Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Use only in a chemical fume hood.

**Storage :** Store in a cool, dry place, preferable under nitrogen cover.

**Precautions :**

## 7. EMERGENCY / FIRST AID MEASURES

### FIRE:

**Fire Extinguishing Media :** Dry chemical, foam, carbon dioxide

**Special Procedure :**

**Unusual Hazards :** When heated to decomposition, it emits very toxic fumes of fluorides and sulfur oxides

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### EXPOSURE: First Aid Measures:

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**Skin:** Flood the affected body with water and remove the contaminated clothing. Wash the affected skin thoroughly with soap and water.

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## Antidotes / Dosages:

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### SPILLS :

**Steps To Be Taken** : Ventilate the area of spill. Cover the spilled material with sand and then transfer to a container. Wash surfaces well with detergent and water.

**Waste Disposal Method:** Collect all wastes in air-tight bags for eventual disposal.

## 8. ADDITIONAL INFORMATION / REFERENCES

## 9. MANUFACTURERS / SUPPLIERS DATA

<b>NAME OF FIRM :</b>	<b>Contact person</b>
<b>MAILING ADDRESS :</b>	<b>in Emergency :</b>
<b>TELEPHONE / TELEX NOS :</b>	<b>Local Bodies involved :</b>
<b>TELEGRAPHIC ADDRESS :</b>	<b>Standard Packing :</b>
<b>OTHERS :</b>	<b>Trem Card Details / Ref :</b>

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