

SDS

SAFETY DATA SHEET

Oakwood Products, Inc
730 Columbia HWY N
Estill, SC 29918
www.oakwoodchemical.com

Phone Numbers:

Product Information	803-739-8800
Transportation Emergency	800-451-8346
Outside the USA	760-602-8700

MATERIAL IDENTIFICATION

NAME: **Methanesulfonyl fluoride**
CAS#: [558-25-8]
CAT#: 002449
For R&D use only.

HAZARDS IDENTIFICATION**GHS Classification**

Acute toxicity, oral (Category 2)
Skin corrosion/irritation (Category 1B)
Serious eye damage/eye irritation (Category 1)
Acute toxicity, inhalation (Category 1)

GHS Label elements, including precautionary statements**Pictograms****Signal Word****Danger****Hazard Statement(s)**

H300	Fatal if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H330	Fatal if inhaled

Precautionary Statement(s)

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P304 + P340	IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	: Fluoro methyl sulfone, Fumette, MSF, Mesyl fluoride
Formula	: CH ₃ FO ₂ S
Molecular Weight	: 98.10 g/mol

CAS	Description	Concentration
558-25-8	Methanesulfonyl fluoride	98%

FIRST AID MEASURES

In case of eye contact

Immediately flush eyes with running water for at least 15 minutes while keeping eyes open. Seek medical attention.

In case of skin contact

Wash thoroughly with soap and plenty of water. Seek medical attention.

If inhaled

Remove victim from source of exposure to fresh air. If breathing is difficult, administer oxygen. Seek medical attention.

If swallowed

Do not induce vomiting. Give water to victim to drink. Seek medical attention.

FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use carbon dioxide, dry chemical powder, alcohol-resistant or polymer foam.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosion hazards/decomposition of product

emits toxic fumes under fire conditions.

ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing fumes, vapors, mists or gas. Ventilate area. Remove all sources of ignition. Evacuate personnel.

Environmental precautions

Prevent further leakage if safe to do so.

Methods and materials for containment and clean up

Absorb spills on sand or vermiculite and place in closed container for disposal.

HANDLING AND STORAGE**Precautions for safe handling**

Avoid prolonged use. Avoid all direct contact with material. Do not breathe dust or vapor. Wash thoroughly after handling.

Lachrymator

Precautions for safe storage

Keep container tightly closed. Store in a cool, dry, well-ventilated area.

Moisture sensitive.

Store under inert gas. Do not store in glass.

EXPOSURE CONTROL/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment**Eye/face protection**

Wear protective safety goggles or face shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand/skin protection

Avoid all direct contact with product.

Wear chemical-resistant gloves.

Wear protective clothing and boots.

After contact with skin, wash immediately.

Respiratory protection

Ensure adequate ventilation during use. Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the exposure limits.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless liquid
Odour	no data available
Odour Threshold	no data available
Melting point/Freezing Point	no data available
Boiling Point	123-124°C
Flash Point	no data available
Evaporation Rate	no data available
Flammability (solid, gas)	no data available
Upper/Lower Flammability or Explosive limits	no data available
Vapour pressure	no data available
Relative Density	1.427
Solubility(ies)	no data available

Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Refractive Index	no data available

STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.
Strong hydrogen fluoride-releaser.

Possibility of hazardous reactions

Reacts dangerously with glass.

Conditions to avoid

Moisture.

Incompatible materials

Strong oxidizing agents, strong acids, strong bases, alcohols, glass, and water.

Hazardous decomposition products

May evolve carbon monoxide, carbon dioxide, sulfur oxides, and hydrogen fluoride.

TOXICOLOGICAL INFORMATION

Acute toxicity

Inhalation LC50

Rat - 7h - 1ppm

Remarks: Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels True cholinesterase.

Intraperitoneal LD50

Rat - 3 mg/kg

Skin corrosion/irritation

Causes severe skin burns and eye damage

Serious eye damage/eye irritation

Causes serious eye damage

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

Exposure Routes

Harmful to skin, eyes, and respiratory system.

Toxic if swallowed.

Signs and Symptoms of Exposure

Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia.

Cholinesterase inhibitors can cause heavy salivation and secretion in the lungs, lachrymation, blurred vision, involuntary defecation, diarrhea, tremor, ataxia, sweating, hypothermia, lowered heart rate, and/or a fall in blood pressure as a result of their action at cholinergic nerve sites. Symptoms include dizziness, drowsiness, confusion, weakness, muscle cramps/spasms, change in pupil size, fever, seizures, incoordination.

Additional Information

RTECS: PB2975000

To the best of our knowledge, the health hazards of this material have not been fully investigated.

ECOLOGICAL INFORMATION**Toxicity**

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

DISPOSAL CONSIDERATIONS

Dissolve in or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all Federal, State and local laws.

TRANSPORT INFORMATION**DOT**

Toxic by inhalation liquid, corrosive, n.o.s.

6.1, 8

UN3389 I
Inhalation Zone A

IMDG

Toxic by inhalation liquid, corrosive, n.o.s.
6.1, 8
UN3389
Inhalation Zone A
EMS-No: F-A, S-B
Marine Pollutant: No

IATA

Toxic by inhalation liquid, corrosive, n.o.s.
6.1, 8
UN3389
Inhalation Zone A
IATA Passenger: Forbidden for transport
IATA Cargo: Forbidden for transport

REGULATORY INFORMATION

SARA 302 Components

SARA 302: The following chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302:

	CAS
Methanesulfonyl fluoride	558-25-8

SARA 313 Components

SARA 313: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

New Jersey Right to Know Components

This product contains a chemical on the New Jersey Right to Know Components List.

	CAS
Methanesulfonyl fluoride	558-25-8

California Prop. 65 Components

This product does not contain a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

OTHER INFORMATION

Version : 1.2

Revision Date : 1/9/2017

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Oakwood shall not be held liable for any damage resulting from handling or from contact with the above product.