

MATERIAL SAFETY DATA SHEET
No. 077 /JJM/Sulfuryl Fluoride.

1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

1.1 Identification of the substance

Common name	Sulfuryl fluoride
Trade Name	
Chemical Name	Sulfuryl fluoride
Formula	F ₂ O ₂ S
Molecular Mass	102.1
Kind of Use	Fumigant

1.2 Identification of the supplier

Company name and address	PT. Johny Jaya Makmur Jl. Agung Utara I Blok A2 No.28 Sunter Agung-Podomoro Jakarta Utara
Telephone No.	021-65307518 (hunting)
Fax. No	021-65307519
Contact address in case of emergency	PT. Johny Jaya Makmur Jl. Agung Utara I Blok A2 No.28 Sunter Agung-Podomoro Jakarta Utara

2. HAZARD IDENTIFICATION Dangerous for aquatic organism. Harmful by inhalation

3. FIRST AID MEASURES

Special instructions Inhalation	Remove person to fresh air. Seek medical advice. If breathing is difficult, give artificial respiration, by - qualified personnel. Call a physician.
Skin	immediately apply water to contaminated clothing before removing. Once area has thawed, remove contaminated items covering skin. Wash thoroughly or shower.

Eyes	in case of frostbite, immediately eyes with water, after 5 minutes, then continues flushing eyes for at least 15. minutes. Obtain medical attention promptly preferably from an ophthalmologist.
Ingestion	if swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention.
Information to doctor or other trained persons giving first aid.	No specific antidote known. Symptomatic treatment should be given.

4. FIRE FIGHTING MEASURES

Suitable extinguishing media	Foam, CO ₂ , dry sand, chemical powders
Unsuitable extinguishing media	Jet of water. Water spray may be used to cool containers, but a water stream may spread flames.
Special exposure hazard in fire	As for all organic materials, combustion may lead to hazardous oxides of carbon and other toxic fumes.
Special protective equip. for fire fighting	Wear a self-contained respiratory apparatus. Wear protective clothing.
other instructions	Cool fire-exposed container with water and avoid environment contamination.

5. ACCIDENTAL RELEASE MEASURES

Action to take for spills/leaks	Evacuate immediate area if cylinder begin to leak. Use a NIOSH or MSHA approved positive-pressure, SCBA or combination. For leaking cylinder occurring near structure being fumigated, place cylinder inside the designated structure if it can be done safely. If leaking occurs elsewhere, move leaking or damaged cylinder outdoor or to an isolated location, observing strict safety precautions. Work upwind if possible. Do not permit entry into leakage area by unprotected persons until concentration of fumigant is determined to be 1 ppm or less, as determined by a detection device with sufficient sensitivity such as an Interscan or Miran gas analyzer.
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6. HANDLING AND STORAGE

Handling	Keep out of reach of children. Do not breathe gas. Keep all unnecessary people and pets out of area containing SF gas
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Storage Sensitivity to humidity, light & oxidation	Stable under normal atmospheric conditions when stored in closed container.
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special storage requirements

away from heat and dwelling

7. EXPOSURE CONTROL/PERSONAL PROTECTION

Limit value for air in working place

ACGIH TLV is 5 ppm TWA, 10 ppm STEL. OSHA PEL is 5 ppm TWA

None established

Provide local exhaust or general dilution ventilation system
Lethal concentrations may exist in area with poor ventilation.

Personal protective equipment

Respiratory protection

Use NIOSH approved self contained breathing apparatus or positive-pressure airline with auxiliary self contained air supply

Skin protection

Use of any protective clothing such as unsealed encapsulating suits, exposed open topped boots or open-cuffed gloves that may entrap the liquid next to the skin must be avoided.

Eye protection

Use chemical goggles

8. PHYSICAL AND CHEMICAL PROPERTIES

Physical state

Colour

colourless

Odour

odorless compressed gas

Melting point

(-135 °C)

Boiling point

(-55 °C)

Specific gravity/Density

1.35 at 20°C

Vapour pressure

15.2 Atm at 20 °C

Vapour density

4.3 g/l at 20 °C

Flash point

NA

Molecular Mass

9. STABILITY AND REACTIVITY

Hazardous reactions	Cylinder exposed to fire may vent and release toxic gas through melted fusible plugs on cylinder.
Sensitivity to jolting	None
Thermal decomposition	temperatures exceeding 400 oC, it will degrade to form hydrogen fluoride and sulfur dioxide.
Condition to avoid	Avoid spark generation and flames
Material to avoid	strong base

10. TOXICOLOGICAL INFORMATION

Eye	Essentially non irritating to eyes. Liquid may cause frostbite.
Skinn	Essentially on irritating to skin. Liquid may cause frostbite. No adverse effect anticipated by skin absorptio
Inhalation	Vapour concentrations are attainable which may be fatl with single exposure. Excessive exposure may cause severe irritation to upper respiratory tract (nose and throat) and lung. LC ₅₀ (4 h) for rat is 991 -1122 ppm
Systemic effect	in animal, effect have been reported on the following organs : brain, central nervous system, kidney, lung, respiratory tract and tyroid gland.observations in animals include convulsions and tremors. May cause fluorosis of teeth and bones.

11. ECOLOGICAL INFORMATION

Persistence in the environment Biodegradation	The hydrolisis half life is 18 minutes to 3 days.
Mobility	potensial for mobility in soil is very hig
Toxic effect on organism aquatic toxicity LC ₅₀ fish rainbow trout	Material is highly toxic to aquatic invertebrates on an acute basis (LC ₅₀ or EC ₅₀ is between 0.1 and 1 mg/l)
EC ₅₀ Daphnia magna	0.62 mg/l
Other toxicity LD ₅₀ honey bee	EC ₅₀ in green alga is 3.05 mg/l

12 DISPOSAL CONSIDERATIONS

Product	Promptly return all empty cylinders to Johny jaya Mak mur. Wastes are toxic. Improper disposal of excess waste is a violation of law.
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Empty packaging

Disposal or incineration method based on state or local codes of practice and laws.

13 TRANSPORT INFORMATION

For all other modes transportation

Do not ship this material by air

Sulphuryl Fluoride/2.3/UN/2191/Poison Inhalation hazard/ Zone D

Risk Category

Health :3
Flammability : 0
Reactivity : 1

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