

# MATERIAL SAFETY DATA SHEET

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## SECTION I – GENERAL INFORMATION

TRADE NAME **MASTER FUME™**  
CHEMICAL NAME Sulfuryl Fluoride  
CHEMICAL FAMILY  
EPA REG. NO. 19713-596  
SIGNAL WORD Danger

## SECTION II – INGREDIENTS (Class = H (Hazardous), NH (Non-Hazardous))

NAME	CAS NO.	% (by wt.)	TLV	CLASS
Sulfuryl Fluoride	002699-79-8	99.8%	5ppm	H
Inerts		0.2%		

## SECTION III – PHYSICAL DATA

<u>Boiling Point</u>	-67°F (-55°C)	<u>Specific Gravity</u>	1.35 @ 20°C
<u>Vapor Pressure</u>	15.2 atmospheres @ 20° C	<u>% Volatiles</u>	100%
<u>Vapor Density</u>	4.3 g/L @ 20°C	<u>Solubility in Water</u>	Practically insoluble
<u>pH</u>	N/A	<u>Appearance/Odor</u>	Colorless/odorless compressed gas

## SECTION IV – FIRE & EXPLOSION DATA

Flash Point N/A  
Extinguishing Media Water  
Fire Fighting Procedures Cylinders exposed to fire may vent and release toxic gas through melted fusible plugs on cylinders. Although sulfuryl fluoride is not combustible, in temperatures exceeding 400°C (752°F), it will degrade to form hydrogen fluoride and sulfur dioxide.

## SECTION V – REACTIVITY DATA

Stability (Conditions to avoid)	Cylinders may leak or rupture in a fire.
Incompatibility Specific materials to avoid	(Strong base)
Hazardous Decomposition Products	Sulfur dioxide and Hydrogen fluoride under fire conditions with hydrocarbons.
Hazardous Polymerization	Not known to occur.

## SECTION VI – HEALTH HAZARD DATA

Carcinogenicity N/A  
Toxicity Data Oral LD50 (RAT) : 100 mg/kg, inhalation LC50 (4hr-RAT) : 991-1122 ppm  
TLV 5 ppm  
N.F.P.A. 3-0-1  
(Rating: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Insignificant)  
Effects of Overexposure Respiratory irritation, central nervous system depression, nausea, abdominal pain. Pulmonary edema, lung and kidney damage, respiratory failure. There is no known antidote.

## SECTION VII – EMERGENCY PROCEDURES

**If Inhaled:** Move person to fresh air. If not breathing call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth. Call poison control center or doctor.  
**If on Skin:** Immediately apply water to contaminated area of clothing before removing. Once area has thawed, remove contaminated clothing, shoes, and other items covering skin. Rinse skin immediately with plenty of water. Call a poison control center or doctor.  
**If in Eyes:** May cause "cryogenic burn" if exposed. Hold eye open and rinse slowly with water. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. The liquid for of this product in the eye may cause damage due to refrigeration or freezing. Call a poison control center or doctor.  
**Note to Physician:** This product is a gas which has no warning properties such as odor or eye irritation. (Early symptoms of exposure to this product are respiratory irritation and central nervous system depression. Excitation may follow. Slowed movement, reduced awareness, and slow or garbled speech may be noted. Prolonged exposure can produce lung irritation, pulmonary edema, nausea, and abdominal pain. Repeated exposure to high concentrations can result in significant lung and kidney damage. Single exposures at high concentrations have resulted in death. Treat symptomatically.)

## SECTION VIII- SPILL OR LEAK PROCEDURES

Steps to be taken in case of material leak or spill: Evacuate area if cylinder begins to leak. Assure proper SCBA is worn. Safely move damaged cylinder outdoors or an isolated location. Work up-wind. Observe strict safety precautions.  
Waste Disposal Method  
Dispose of in accordance with Local, State, and Federal Regulations.

## SECTION IX – SPECIAL PROTECTION INFORMATION

**Danger:** Fatal if inhaled. Causes irreversible eye damage. Liquid causes freeze burns of exposed skin. May be fatal if swallowed. Do not breathe vapor. Do not get in eyes, on skin, or on clothing. This product is odorless and colorless. Exposure to toxic levels may occur without warning or detection by the user.  
**Personal Protection Equipment (PPE):** Wear splash resistant goggles or full face shield when handling the product during introduction of fumigant or when working around any lines containing fumigant under pressure. Do not wear gloves or rubber boots. Do not reuse clothing or shoes that have become contaminated with product until cleaned and thoroughly aerated.  
**Respiratory Protection:** If the concentration of this product in the fumigated area does not exceed 1 ppm, no respiratory protection is required. When this concentration is exceeded or when the concentration of this product is unknown, all persons in these areas must wear a NIOSH or MSHA approved positive pressure self-contained breathing apparatus (SCBA, not SCUBA), approval number prefix TC-19C, or combination air-supplied/SCBA respirator such as manufactured by Draeger, Ranger, Survivair, Scott, or MSA. This SCBA must be on site and operational before fumigation. Before using any make or brand of SCBA, learn how to use it correctly. Determine that it is in good working order, has an adequate air supply for the job at hand, fits properly, and provides an adequate seal around the face.

**SECTION X – SPECIAL PRECAUTIONS**

Precautions To Be Taken In Handling & Storage

KEEP OUT OF REACH OF CHILDREN. FOLLOW LABEL DIRECTIONS CAREFULLY. DO NOT BREATHE GAS.

Store away from foodstuffs.

D.O.T. Description	Sulfuryl Fluoride, 2.3, UN-2191, Poison Inhalation Hazard/Zone D. Note: Do not ship by air.
Freight Description	Specialty gas fumigant
Reportable Quantity	N/A
ERG #	123

For all other modes of transportation: SULPHURYL FLUORIDE, 2.3, UN2191, POISON, INHALATION HAZARD, ZONE D.

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