

Sulfur Hexafluoride
Material Safety
Data Sheet

BOGGS GASES

620 Main Street
 Titusville, FL 32796
 Phone: (321) 267-4110
 FAX: (321) 267-7171

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EMERGENCY PHONE #: Chemtrec: 1-800-424-9300		Created: January 01, 2003 Revised: January 01, 2007	
MANUFACTURER'S NAME: BOGGS GASES 620 Main Street Titusville, FL 32796 Ph: (321) 267-4110 FAX: (321) 267-7171		TRADE NAME AND SYNONYMS: Sulfur Hexafluoride	CHEMICAL NAME AND SYNONYMS: Sulfur Hexafluoride
		FORMULA: SF6 MW: 146.05	CHEMICAL FAMILY: Inorganic fluoride CAS #2551-62-4

HEALTH HAZARD DATA

EXPOSURE LIMITS: OSHA: PEL = 1000 ppm, ACGIH: TWA = 1000 ppm, STEL = 1250 ppm
SYMPTOMS IF INGESTED, CONTACTED WITH SKIN, OR VAPOR INHALED: Symptoms such as headaches, dizziness, shortness of breath, and loss of consciousness may occur if the gas is present in quantities sufficient to dilute the oxygen concentration in air.
TOXICOLOGICAL PROPERTIES: Sulfur Hexafluoride is nontoxic, but the liberation of a large amount in a confined area could displace the amount of oxygen in air necessary to support life.
RECOMMENDED FIRST AID TREATMENT PROMPT MEDICAL ATTENTION IS REQUIRED IN ALL CASES OF OVEREXPOSURE TO SULFUR HEXAFLUORIDE. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH APPROPRIATE PROTECTIVE EQUIPMENT (SELF-CONTAINED BREATHING APPARATUS, ETC.) TO PREVENT UNNECESSARY EXPOSURE. Inhalation: Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, given mouth-to-mouth resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used) N/A	AUTO IGNITION TEMP N/A	FLAMMABLE LIMITS N/A	LEL N/A	UEL N/A
EXTINGUISHING MEDIA Nonflammable inert gas			ELECTRICAL CLASSIFICATION GROUP Nonhazardous	
SPECIAL FIRE FIGHTING PROCEDURES Stop gas flow and fight fire conventionally. Use water spray to keep cylinders or other containers cool if exposed to fire.				
UNUSUAL FIRE AND EXPLOSION HAZARDS Cylinder exposed to heat or flames may vent rapidly or explode.				

PHYSICAL DATA

BOILING POINT (F) @ 1 atm -83.0F (-63.9C)		FREEZING POINT (F) @ 1 atm -58.92F (-50.5C)	
VAPOR PRESSURE (psia) @ 70F (21.1C) 312.9 psia (2200 kPa)	SOLUBILITY IN WATER Negligible		VAPOR DENSITY (lb/cu ft) @ 70F (21.1C), 1 atm 0.382
SPECIFIC GRAVITY (AIR=1) @ 70F (21.1C), 1 atm 5.105	LIQUID DENSITY (lb/cu ft) @ boiling point, 1 atm 89.83		SPECIFIC GRAVITY (H20=1)
APPEARANCE AND ODOR Pure Sulfur Hexafluoride is colorless and odorless. Impurities in carbide generated Sulfur Hexafluoride impart a characteristic garlic-like odor.			

REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID N/A
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS Sulfur Hexafluoride is only stable at elevated temperatures (<400F) if contained in aluminum, stainless steel, copper and brasses or silver. Other metals can cause slow decomposition to SF2, S2F2, SF4 and S2F10.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID N/A
	WILL NOT OCCUR	X	

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SPILL OR LEAK PROCEDURES			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED			
Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs. If leak is in container or container valve, notify Boggs Gases as soon as possible.			
WASTE DISPOSAL METHOD			
Do not attempt to dispose of residual gaseous Sulfur Hexafluoride in cylinders. Return to Boggs Gases for disposal. For emergency disposal assistance, call the 800 emergency phone number.			
SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type)			
Positive pressure air line with mask or SCBA should be available for emergency use.			
VENTILATION	LOCAL EXHAUST	To prevent over TWA	SPECIAL N/A
Hood with forced ventilation	MECHANICAL (General)		
	N/A		
PROTECTIVE GLOVES			
Any material			
EYE PROTECTION			
Safety glasses are recommended when handling cylinders.			
OTHER PROTECTIVE EQUIPMENT			
Safety shoes			
SPECIAL PRECAUTIONS*			
SPECIAL LABELING INFORMATION			
DOT Shipping Name: Sulfur Hexafluoride			
DOT Hazard Class: Nonflammable Gas			
DOT Shipping Label: Nonflammable Gas			
I.D. Number: UN 1080			
SPECIAL HANDLING RECOMMENDATIONS			
Sulfur Hexafluoride shipments must be in accordance with Department of Transportation (DOT) regulations using the DOT "NONFLAMMABLE GAS" label. Consult DOT regulations for details on the shipping of hazardous materials.			
SPECIAL STORAGE RECOMMENDATIONS			
Use only in well ventilated areas. Sulfur Hexafluoride gas cylinders contain gas at high pressure and should be handled with care. Use a pressure reducing regulator set at less than 700 psig. Always keep Sulfur Hexafluoride cylinders upright and secure cylinders when in use. Never expose Sulfur Hexafluoride cylinder to heat. Always open and close Sulfur Hexafluoride valves slowly. Return cylinders to Boggs Gases with positive pressure and cylinder valve closed. Avoid dragging, rolling, or sliding cylinders, even for a short distance. Use a suitable handtruck. For additional handling recommendations on compressed gas cylinders, consult Compressed Gas Association Pamphlet P-1. is not in use. Avoid exposure to areas where salt or other corrosive chemicals are present. See Compressed Gas Association Pamphlet P-1 for additional storage recommendations.			
SPECIAL PACKAGING RECOMMENDATIONS			
Protect cylinders from physical damage. Store in cool, dry, well-ventilated area away from heavily travelled areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 125F (51.7C). Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty containers should be segregated. Use a "first-in, first-out" inventory system to prevent full cylinders from being stored for excessive periods of time.			
For additional storage recommendations consult Compressed Gas Association Pamphlet P-1.			
OTHER RECOMMENDATIONS OR PRECAUTIONS			

* Various Government agencies (i.e., Department of Transportation, Occupational Safety and Health Administration, Food and Drug Administration and others) may have specific regulations concerning the transportation handling, storage or use of this product which will not be reflected in this data sheet. The customer should review these regulations to ensure that s/he is in full compliance.