



Safety Data Sheet

Sulfur Hexafluoride

Section 1: Product and Company Identification

Middlesex Gases & Technologies

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Product Code: Sulfur Hexafluoride

Section 2: Hazards Identification



Warning

Hazard Classification:

Gases Under Pressure

Hazard Statements:

Contains gas under pressure; may explode if heated

Precautionary Statements

Storage:

Protect from sunlight.
Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

CAS #
2551-62-4

Chemical Substance	Chemical Family	Trade Names
SULFUR HEXAFLUORIDE	inorganic, gas	SULFUR FLUORIDE; SULPHUR HEXAFLUORIDE; ELEGAS; UN 1080; SF6

Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Wash exposed skin with soap and water.	Flush eyes with plenty of water.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Non-flammable. Use suitable extinguishing media for surrounding fire.	Thermal decomposition products or combustion: fluorinated compounds, oxides of sulfur, sulfur compounds, hydrogen fluoride, hydrogen sulfide	<ul style="list-style-type: none"> ▪ Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece. ▪ Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece. ▪ Protective material types: leather

Section 6: Accidental Release Measures

Personal Precautions	Environmental Precautions	Methods for Containment
Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Prevent environmental contamination.	Stop leak if possible without personal risk.

Methods for Cleanup	Other Information
Evacuate area, stop leak. Contact emergency personnel.	None

Section 7: Handling and Storage

Handling	Storage
Store and handle in accordance with all current regulations and standards. Store below 49 C. Avoid shock. Store in a well-ventilated area. Store in a tightly closed container. Keep away from heat, sparks and flame. Store in a cool, dry place. Subject to storage regulation: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances. Secure to prevent tipping.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines
SULFUR HEXAFLUORIDE: 1000 ppm (6000 mg/m3) OSHA TWA 1000 ppm ACGIH TWA 1000 ppm (6000 mg/m3) NIOSH recommended TWA 10 hour(s)

Engineering Controls

Handle only in fully enclosed systems.

Eye Protection	Skin Protection	Respiratory Protection

Eye Protection	Skin Protection	Respiratory Protection
Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Protective clothing is not required.	Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece.

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Gas	Clear	Colorless	N/A	Gas	Odorless	N/A

Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
Not flammable	Not available	1.68 (log = 0.226)	Nonflammable	Nonflammable	Nonflammable

Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
Not available	-58.9 F (-50.5 C)	16548 mmHg @ 20 C	5.1 (Air=1)	1.68	Slightly soluble	Not applicable	Not available	Not applicable	0.0156 cP @ 25 C

Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
146.06	F6-S	0.3847	Not available	1	1	Soluble: Alcohol, ether, potassium hydroxide solutions, transformer oil

Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	Combustible materials, metals, oxidizing materials

Hazardous Decomposition Products	Possibility of Hazardous Reactions
Fluorinated compounds, oxides of sulfur, sulfur compounds, hydrogen fluoride, hydrogen sulfide	Will not polymerize.

Section 11: Toxicology Information

Acute Effects

Oral LD50	Dermal LD50	Inhalation
Not available	Not available	Nausea, vomiting, difficulty breathing, dizziness, fatigue, emotional disturbances, tingling sensation, suffocation, convulsions, coma

Eye Irritation	Skin Irritation	Sensitization
No information on significant adverse effects	No information on significant adverse effects	Difficulty breathing

Chronic Effects

Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Not available	Not available	Not available	No data

Section 12: Ecological Information

Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Highly volatile from water.	Not available	Leaches through the soil or the sediment at a moderate rate.

Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Sulfur hexafluoride	UN1080	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A

Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Sulfur hexafluoride	UN1080	2.2	Not applicable

Section 15: Regulatory Information

U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
Not regulated.	Not regulated.	Not regulated.

SARA 370.21

Acute	Chronic	Fire	Reactive	Sudden Release
Yes	Yes	No	No	Yes

SARA 372.65

Not regulated.

OSHA Process Safety

Not regulated.

State Regulations

CA Proposition 65

Not regulated.

Canadian Regulations

WHMIS Classification

A.

National Inventory Status

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Listed on inventory.	Not listed.	Not determined.

Section 16: Other Information

NFPA Rating

HEALTH=1 FIRE=0 REACTIVITY=0

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard