



MATERIAL SAFETY DATA SHEETS

558

Selenium hexafluoride

1. CHEMICAL IDENTITY

Chemical Name : Selenium hexafluoride

Chemical Classification: Toxic

Trade Name :

Synonyms: Selenium fluoride, Selenium(VI) fluoride

Formula : SeF₆

CAS No: 7783-79-1

UN No: 2194

Regulated Identification

Shipping Name : Selenium hexafluoride

Hazchem Code : 2RE

Codes / Label : Class 2.3, Toxic

Hazardous Waste ID No :

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Selenium hexafluoride	7783-79-1	3	
2		4	

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C: -35

Physical State: Gas

Appearance: Colourless

Melting Pt °C: -50.8

Vapour Pressure @ 35°C mmHg: 651.2 mm Hg at - 48.7 deg C

Odour: Repulsive

Vapour Density(Air =1): 6.7

Solubility in water at 30°C g/100ml: Insoluble

Others:

Specific Gravity (Water =1): 8.467 g/L

pH :

3. FIRE / EXPLOSION HAZARD DATA

Flammability : No

LEL:

Flash Point °C in OC:

TDG Flammability:

UEL:

Flash Point °C in CC:

Autoignition Temperature °C :

Explosion sensitivity to impact:

Explosion sensitivity to static Electricity:

Hazardous Combustion Products : When heated to high temperatures it may decompose to emit toxic fluoride and selenium fumes.

Hazardous Polymerization :

Combustible Liquid: No

Explosive Material: No

Corrosive Material No

Flammable Material: No

Oxidiser : No

Others:

Pyrophoric Material: No

Organic Peroxide : No

4. REACTIVITY DATA

Chemical Stability : Stable

Incompatibility with other material : Hydrolyzes very slowly in cold water.

Reactivity : Reacts with ammonia gas at 200 °C. Decomposes on heating producing hydrogen fluoride, fluoride, and selenium. Contact with metal or acid will produce toxic gaseous hydrogen selenide.

Hazardous : Hydrogen fluoride.

Reaction Products

5. HEALTH HAZARD DATA

Routes of entry: Inhalation

Effects of Exposure / Symptoms:

It is a severe respiratory irritant which produces severe breathing difficulties. The breathing difficulties may be delayed in onset.

Emergency Treatment :

Inhalation: Move victim to fresh air. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method

Skin: Remove contaminated clothing and wash exposed area thoroughly with soap and water. A physician should examine the area if irritation or pain persists.

Eyes: Irrigate exposed eyes with copious amounts of tepid water for at least 15 minutes. If irritation, pain, swelling, lacrimation, or photophobia persist, the patient should be seen in a health care facility.

Ingestion: Seek medical assistance.

LD50 (oral-rat) mg/kg:

STEL:

LC50 (rat) mg/kg:

Odour Threshold:

Permissible

0.05 ppm (0.4 mg/m³)

TLV (ACGIH) :

0.05 ppm

Exposure Limit:

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals	3	0	1	

6. PREVENTIVE MEASURES

Personal Protective Equipment : Self-contained breathing apparatus. Wear appropriate chemical protective clothing.

Handling : All chemicals should be considered hazardous. Avoid direct physical contact. Use appropriate, approved safety equipment. Untrained individuals should not handle this chemical or its container. Handling should occur in a chemical fume hood.

Storage : Keep in a cool, dry, dark location in a tightly sealed container or cylinder. Keep away from incompatible materials, ignition sources and untrained individuals. Secure and label area. Protect containers/cylinders from physical damage.

Precautions :

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media :

Special Procedure :

Unusual Hazards :

EXPOSURE: First Aid Measures:

Inhalation: Move victim to fresh air. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method

Skin: Remove contaminated clothing and wash exposed area thoroughly with soap and water. A physician should examine the area if irritation or pain persists.

Eyes: Irrigate exposed eyes with copious amounts of tepid water for at least 15 minutes. If irritation, pain, swelling, lacrimation, or photophobia persist, the patient should be seen in a health care facility.

Ingestion: Seek medical assistance.

Antidotes / Dosages:

SPILLS :

Steps To Be Taken : 1. Ventilate area of leak. 2. Stop flow of gas. If source of leak is a cylinder, remove it to a safe place in open air, and repair the leak or allow the cylinder to empty.

Waste Disposal Method:

8. ADDITIONAL INFORMATION / REFERENCES

9. MANUFACTURERS / SUPPLIERS DATA

NAME OF FIRM :	Contact person
MAILING ADDRESS :	in Emergency :
TELEPHONE / TELEX NOS :	Local Bodies involved :
TELEGRAPHIC ADDRESS :	Standard Packing :
OTHERS :	Trem Card Details / Ref :

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