

Sulphur Hexafluoride

1 Identification of the substance/mixture and of the company/undertaking

Product identifier	
Trade name	: Sulphur hexafluoride
SDS Nr	: SDS-110_CLP
Chemical description	: Sulphur hexafluoride CAS No :002551-62-4 EC No :219-854-2 Index No :---
Chemical formula	: SF6
Registration-No.	: Registration deadline not expired.
Use	: Industrial and professional. Perform risk assessment prior to use.

Classification of the substance or mixture

Hazard Class and Category Code
Regulation EC 1272/2008 (CLP)

Manufacturer / Distributor:

Ehsan International Gases
40/9, Aurangabad, Nazimabad
#3, Karachi 74600, Pakistan.
+92 21 36612091 – 36612907
info@ehsan.com.pk
www.ehsan.com.pk

2 Hazards identification

• **Physical hazards** : Gases under pressure - Liquefied gas - Warning (H280)

Classification EC 67/548 or EC 1999/ : Not included in Annex VI.

45 Not classified as dangerous preparation/substance.
No EC labelling required.

Label elements

Labelling Regulation EC 1272/2008 (CLP)

- Hazard pictograms
- Hazard pictograms code : GHS04

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- **Signal word:** Warning
- **Hazard statements** : H280 : Contains gas under pressure; may explode if heated.
- **Precautionary statements**

- **Storage** : P403 : Store in a well-ventilated place.

Labelling EC 67/548 or EC 1999/45

Symbol(s) : None.

R Phrase(s) : None.

S Phrase(s) : None.

Other hazards

3 Composition/information on ingredients

Other hazards : Asphyxiant in high concentrations.

Substance / Preparation : Substance.

Substance name	Contents	CAS No	EC No	Index No	Registration no	Classification
Sulphur hexafluoride	:		100 %	2551-62-4	219-854-2 -----	NOTE 2 Liq. Gas (H280) Liq. Gas (H280)

Contains no other components or impurities which will influence the classification of the product. Note

1: Listed in Annex IV / V REACH, exempted from registration.

Note 2: Registration deadline not expired.

4 First aid measures

Full text of R-phrases see chapter 16

First aid measures

- **Inhalation** : In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- **Skin/eye contact** : Immediately flush eyes thoroughly with water for at least 15 minutes.
In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.
- Ingestion** : Ingestion is not considered a potential route of exposure.

5 Fire-fighting measures

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Specific hazards	: Exposure to fire may cause containers to rupture/explode.
Hazardous combustion products	: If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition : Hydrogen fluoride. Sulphur dioxide.
Extinguishing media	
- Suitable extinguishing media	: All known extinguishants can be used.
Specific methods	: If possible, stop flow of product. Move away from the container and cool with water from a protected position.
Special protective equipment for fire	: Use self-contained breathing apparatus and chemically protective clothing. Fighters

6 Accidental release measures

7 Handling and storage

Personal precautions	: Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.
Environmental precautions	: Try to stop release. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Clean up methods	: Ventilate area.
Handling	: Suck back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Refer to supplier's container handling instructions.
Storage	: Keep container below 50°C in a well ventilated place.
Personal protection	: Ensure adequate ventilation.

8 Exposure controls/personal protection

Occupational Exposure Limits	Do not smoke while handling product. : Sulphur hexafluoride : TLV© -TWA [ppm] : 1000
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9 Physical and chemical properties

Physical state at 20 °C	: Gas.
Colour	: Colourless gas.
Odour	: No odour warning properties.
Molecular weight	: 146
Melting point [°C]	: -50.8
Boiling point [°C]	: -64 (s)
Critical temperature [°C]	: 45.5
Vapour pressure [20°C]	: 21 bar
Relative density, gas (air=1)	: 5
Relative density, liquid (water=1)	: 1.4
Solubility in water [mg/l]	: 41
Other data	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10 Stability and reactivity

Hazardous decomposition products	: Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.
Chemical stability	: Stable under normal conditions.

11 Toxicological information

12 Ecological information

Toxicity information : No known toxicological effects from this product.

Ecological effects information: Contains Fluorinated greenhouse gases covered by the Kyoto protocol. **Global**

13 Disposal considerations

warming potential [CO₂=1] : 22200

General : Do not discharge into any place where its accumulation could be dangerous.

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Contact supplier if guidance is required.

14 Transport information

UN number : 1080
• Labelling ADR, IMDG, IATA : 2.2 : Non flammable, non toxic gas.

Land transport

ADR/RID
H.I. nr : 20
UN proper shipping name : SULPHUR HEXAFLUORIDE
Transport hazard class(es) : 2
- ADR/RID Classification code : 2 A
- Packing Instruction(s) - General : P200
- Tunnel Restriction : C/E Tank carriage: Passage forbidden through tunnels of category C, D and E; Other carriage: Passage forbidden through tunnels of category E

Sea transport

- IMO-IMDG code
• Proper shipping name : SULPHUR HEXAFLUORIDE
• Class : 2.2
- IMO Packing group : P200
- Emergency Schedule (EmS) - Fire : F-C
- Emergency Schedule (EmS) - : S-V
Spillage
- Instructions - Packing : P200

Air transport

- ICAO/IATA
- Proper shipping name : SULPHUR HEXAFLUORIDE
• Class : 2.2
• Passenger and Cargo Aircraft : - Packing instruction : 200 • Cargo Aircraft only :
- Packing instruction : 200

Avoid transport on vehicles where the load space is not separated from the driver's compartment.

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Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting product containers :

- Ensure that containers are firmly secured.
- Ensure cylinder valve is closed and not leaking.
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.
- Ensure there is adequate ventilation.

15 Regulatory information

- Compliance with applicable regulations.

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

16 Other information

Seveso regulation 96/82/EC : Not covered.

Asphyxiant in high concentrations.

Keep container in well ventilated place.

Do not breathe the gas.

Contact with liquid may cause cold burns/frostbite.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

DISCLAIMER OF LIABILITY

: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.