



## Material Safety Data Sheet Sulfur Hexafluoride

**AXCEL GASES**

Creation Date: 18.02.2008

MSDS No. : AX-10  
Page 1 / 4

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

**Product name:** Sulfur Hexafluoride  
**Chemical formula:** SF<sub>6</sub>  
**Known uses:** Not known  
**Company:** Axcel Gases  
**Head Office:**  
1K/49, NIT, Faridabad, 121001, India  
**Email:** [info@axcelgases.com](mailto:info@axcelgases.com)  
**Works:**  
80 KM Delhi-Jaipur Highway, Distt. Rewari, 123106 Haryana,  
India  
**Email:** [info@axcelgases.com](mailto:info@axcelgases.com)

### 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**Classification acc. to Regulation (EC) No 1272/2008/EC (CLP/GHS)**

Press. Gas (Liquefied gas) - Contains gas under pressure; may explode if heated.

**Classification acc. to Directive 67/548/EEC & 1999/45/EC**

Not classified as dangerous substance. Asphyxiant in high concentrations.

**Risk advice to man and the environment**

In high concentrations may cause asphyxiation. Liquefied gas.

**Label Elements**

- Labelling Pictograms



-Signal word

Warning

- Hazard Statements

H280

Contains gas under pressure; may explode if heated.

EIGA-As

Asphyxiant in high concentrations.

- Precautionary Statements

**Precautionary Statement Prevention:** None

**Precautionary Statement Reaction:** None

**Precautionary Statement Storage**

P403

Store in a well-ventilated place.

**Precautionary Statement Disposal:** None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Preparation:** Substance.

**Components/Impurities**

Sulfur Hexafluoride

**CAS No:** 2551-62-4

**Index-Nr.:**

**EC No (from EINECS) :** 219-854-2

**REACH Registration number:**

Not available.

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



## Material Safety Data Sheet Sulfur Hexafluoride

AXCEL GASES

Creation Date: 18.02.2008

MSDS No. : AX-10  
Page 2 / 4

#### 4. 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:

For liquid spillage - flush 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

**Specific hazards:** Exposure to fire may cause containers to rupture/explode. Non Flammable.

**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.

**Suitable extinguishing media:** All known extinguishants can be used.

**Specific methods:** If possible, stop flow of product. Move container away or cool with water from a protected position.

**Special protective equipment for fire fighters:** Use self-contained breathing apparatus and chemically protective clothing.

#### 6. ACCIDENTAL RELEASE MEASURES

##### 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.

#### 7. HANDLING AND STORAGE

##### 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 handling instructions.

##### Storage

Secure cylinders to prevent them falling. Keep container below 50°C in a well ventilated place. Observe "Technische Regeln Druckgase (TRG) 280 Ziffer 5"

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Exposure limit value

Value type	Value	Note
Germany – AGW	1.000 ppm	TRGS 900

**Personal protection:** Protect eyes, face and skin from liquid splashes. Ensure adequate ventilation.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

##### General information

**Appearance/Colour:** Colourless gas.

**Odour:** No odour warning properties.

**Important information on environment, health and safety Molecular weight:** 146 g/mol

**Melting point:** -50,8 °C

**Sublimation point:** -64 °C

**Critical temperature:** -147 °C

**Autoignition temperature:** Not Applicable

**Flammability range:** Not Applicable

**Relative density, gas:** 5

**Relative density, liquid:** 1,4

**Maximum filling pressure (bar):** 21 bar

**Other data:** Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.



**Material Safety Data Sheet**  
**Sulfur Hexafluoride**

**AXCEL GASES**

Creation Date: 18.02.2008

MSDS No. : AX-10  
Page 3 / 4

**10. STABILITY AND REACTIVITY**

**Stability and reactivity:** Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.

**11. TOXICOLOGICAL INFORMATION**

**General:** No known toxicological effects from this product.

**12. ECOLOGICAL INFORMATION**

**General:** When discharged in large quantities may contribute to the greenhouse effect.

**Global Warming Potential GWP:** 22.200

**13. DISPOSAL CONSIDERATIONS**

**General :** Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.

**EWC Nr. 16 05 05**

**14. TRANSPORT INFORMATION**

**ADR/RID**

Class: 2

Classification Code: 2A

**UN number and proper shipping name**

UN 1080 Sulfur Hexafluoride

UN 1080 Sulfur Hexafluoride

Labels: 2.2

Hazard number: 20

Packing Instruction: P200

**IMDG**

Class : 2.2

**UN number and proper shipping name**

UN 1080 Sulfur Hexafluoride

Labels : 2.2

Packing Instruction : P200

EmS: FC, SV

**IATA**

Class : 2.2

**UN number and proper shipping name**

UN 1080 Sulfur Hexafluoride

Labels : 2.2

Packing Instruction: P200

**Other transport information**

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 they are firmly secured. Ensure that the cylinder valve is closed and not leaking. Ensure that the valve outlet cap nut or plug (where provided) is correctly fitted. Ensure that the valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations

**15. REGULATORY INFORMATION**

**Further national regulations :-**

Pressure Vessel Regulation

Regulations for the prevention of industrial accidents

**Water pollution class**

Not polluting to waters according to VwVwS from 17.05.99



**Material Safety Data Sheet**  
**Sulfur Hexafluoride**

**AXCEL GASES**

Creation Date: 18.02.2008

MSDS No. : AX-10  
Page 4 / 4

**16. OTHER INFORMATION**

Ensure all national/local regulations are observed. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

**Advice**

To prepare this document, help of various source of information available over electronic media has been taken for the sake of safety of the mankind and the environment. Whilst proper care has been taken during preparation of this document, no legal liability of any kind is accepted for any Injury or Damage resulting from the use of the product or information. We do not claim any type of ownership/correctness of this document or the information contained in it.

----- End of the Document-----

AXCEL GASES