Safety data sheet
Sulphur hexafluoride.

Creation date : 27.01.2005 Version : 2.0 DE / E SDS No. : 8327
Revision date : 05.01.2011 page 1 / 3

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name
Sulphur hexafluoride.
EC No (from EINECS): 219-854-2
CAS No: 2551-62-4
Index-Nr.
Chemical formula SF_6
REACH Registration number:
Not available.
Known uses
Not known.
Company identification
Linde AG, Linde Gas Division, Seitnerstraße 70, D-82049 Pullach
E-Mail Address Info@de.linde-gas.com
Emergency phone numbers (24h): 089-7446-0

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
Liquefied gas.
In high concentrations may cause asphyxiation.
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
Sulphur 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.

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: 45,5 °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.

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 Sulphur hexafluoride
UN 1080 Sulphur hexafluoride

Labels	2.2	Hazard number	20
Packing Instruction	P200		

IMDG

Class	2.2

UN number and proper shipping name
UN 1080 Sulphur hexafluoride

Labels	2.2
Packing Instruction	P200
EmS	FC, SV

IATA

Class	2.2

UN number and proper shipping name
UN 1080 Sulphur 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.

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
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. Details given in this document are believed to be correct at the time of going to press.
Further information
Linde safety advice

No. 3	Oxygen deficiency
No. 7	Safe handling of gas cylinders and cylinder bundles
No. 11	Transport of gas receptacles in vehicles

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