

Sulphur hexafluoride**AL016**

Label 2.2 : Non flammable, non toxic gas.

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade name : Sulphur hexafluoride
MSDS Nr : AL016
Use : Industrial applications.
Chemical formula : SF₆
Company identification : Air Liquide Australia Limited
380 St. Kilda Road
Melbourne 3004 Australia
Tel: + 61 3 9697 9888
Fax: + 61 3 9690 7107
ALAEquiries@AirLiquide.com
Emergency phone nr : 1800 812 588

2 HAZARDS IDENTIFICATION

Hazard classification : Not Classified as Hazardous according to NOHSC criteria. Classified as Dangerous Goods by the criteria of the ADG code.
Hazards identification : Liquefied gas.
In high concentrations may cause asphyxiation.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Preparation : Substance.

Substance name	Contents	CAS No	EC No	Annex No	Classification
Sulphur hexafluoride	100 %	2551-62-4	219-854-2	-----	

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

4 FIRST AID MEASURES**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

- 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 hexafluoride

AL016

5 FIRE-FIGHTING MEASURES (continued)

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 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

Storage : Keep container below 50°C in a well ventilated place.**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.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection : Ensure adequate ventilation.
Do not smoke while handling product.**Occupational Exposure Limits** : Sulphur hexafluoride : TLV© -TWA [ppm] : 1000

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.

Sulphur hexafluoride**AL016****10 STABILITY AND REACTIVITY**

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

11 TOXICOLOGICAL INFORMATION

- Toxicity information** : No known toxicological effects from this product.

12 ECOLOGICAL INFORMATION

- Ecological effects information** : Contains Fluorinated greenhouse gases covered by the Kyoto protocol.
- Global warming potential [CO₂=1]** : 22200

13 DISPOSAL CONSIDERATIONS

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

14 TRANSPORT INFORMATION

- UN No.** : 1080
- **Labelling ADG, IMDG, IATA**



- : Label 2.2 : Non flammable, non toxic gas.

Land transport

- H.I. nr** : 20
- Proper shipping name** : SULPHUR HEXAFLUORIDE
- HAZCHEM - Emergency Action Code** : 2TE

- : 2 = Fine water spray.
*T = Recommended personal protective equipment : Full fire kit and breathing apparatus.
Appropriate measures : dilute.
E = There may be a public safety hazard outside the immediate area of the incident, and that the following actions should be considered :*
1. People should be warned to stay indoors with all doors and windows closed, preferably in rooms upstairs and facing away from the incident. Ignition sources should be eliminated and any ventilation stopped.
 2. Effects may spread beyond the immediate vicinity. all non-essential personnel should be instructed to move at least 250 metres away from the incident.
 3. Police and fire brigade incident commanders should consult each other and with a product expert, or with a source of product expertise.
 4. The possible need for subsequent evacuation should be considered, but it should be remembered that in most cases it will be safer to remain in a building than to evacuate.

- **ADG Class** : 2
- **ADG Classification code** : 2 A
- **Packing Instruction(s) - General** : P200

Sea transport

- **IMO-IMDG code**
- **Proper shipping name** : SULPHUR HEXAFLUORIDE
- **Class** : 2.2

Sulphur hexafluoride

AL016

14 TRANSPORT INFORMATION (continued)

- IMO Packing group : P200
 - Emergency Schedule (EmS) - Fire : F-C
 - Emergency Schedule (EmS) - Spillage : S-V
 - Instructions - Packing : P200
- Air transport**
- ICAO/IATA
 - Proper shipping name : SULPHUR HEXAFLUORIDE
 - Class : 2.2
 - Passenger and Cargo Aircraft : Allowed.
 - Packing instruction : 200
 - Cargo Aircraft only : Allowed.
 - Packing instruction : 200
- Other transport information** : Avoid transport on vehicles where the load space is not separated from the driver's compartment.
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.
 - Compliance with applicable regulations.

15 REGULATORY INFORMATION

- EC Classification** : Not included in Annex I.
Not classified as dangerous preparation/substance.
- EC Labelling** : No EC labelling required.
- Symbol(s)** : None.
- R Phrase(s)** : None.
- S Phrase(s)** : None.

16 OTHER INFORMATION

Asphyxiant in high concentrations.
Keep container in well ventilated place.
Do not breathe the gas.
Ensure all national/local regulations are observed.
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** : 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. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

End of document