



SAFETY DATA SHEET

Revised edition no : 2
Date : 12/05/2014


Sulfur Hexafluoride

PG 022

SECTION 1. IDENTIFICATION OF THE PRODUCT AND COMPANY UNDERTAKING

MATERIAL NAME	SULFUR HEXAFLUORIDE
Trade Name/Synonyms	MTG MSDS 81; SULFUR FLOURIDE; SULFUR HEXAFLUORIDE'ELEGAS; UN 1080; F6S; RTECS: WS4900000
Chemical Family	Inorganic, gas
Product Use	Industrial
Usage Restrictions on Use	None Known
Company:	Puregas (Pty) Ltd PO Box 123884, Alrode, 1451, South Africa Tel : (011) 903 9760 Fax: (011) 903 9766 Cellphone: 082 889 6946 (1 st) 082 885 7475 (2 nd) Info@puregas.co.za Emergency Tel: 0800 172 743 (Rapid Spill Response)

SECTION 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:	Gas under pressure, Liquefied gas
GHS SYMBOL	
GHS SIGNAL WORD	WARNING
GHS HAZARD STATEMENT	Contains gas under pressure; may explode if heated.
PRECAUTIONARY STATEMENT (S)	Protect from sunlight. Store in a well-ventilated place

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component	Percent
2551-62-4	SULFUR HEXAFLUORIDE	100

Component Related Regulations Information
This product may be regulated, have exposure limits or other information identified as the following: Fluoride



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SECTION 4. FIRST AID MEASURES

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Eye contact

Flush eyes with plenty of water.

Skin contact

If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

Ingestion

If a large amount is swallowed, get medical attention.

NOTE TO PHYSICIANS

For Inhalation, consider oxygen

SYMPTOMS: Immediate

Suffocation

SYMPTOMS: Delayed

No data available

SECTION 5. FIRE-FIGHTING MEASURES

See Section 9 for Flammability Properties

Negligible fire hazard. Pressurized containers may rupture or explode if exposed to heat.

Carbon dioxide, regular dry chemicals

Use spray water to keep containers cool.

None Known

Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

Move container from fire area if it can be without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters. Use extinguishing agents appropriate for surrounding fire. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Do not get water directly on material. Reduce vapors with water spray. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Consider downwind evacuation if material is leaking.

Fluoride compounds, oxide of sulfur, sulfur compounds, hydrogen fluoride, and hydrogen sulfide.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear personal protective clothing and equipment, see Section 8.

Environmental Precautions

Avoid release to the environment

Methods Material for containment and clean-up

Avoid heat, flames, sparks and other sources of ignition. Ventilate closed spaces before entering. Damaged cylinders should be handled only by specialists.

SECTION 7. HANDLING AND STORAGE

Handling precautions

Avoid breathing gas. Use only with adequate ventilation.

Storage precautions

Store and handle in accordance with all current regulations and standards. Store below 49 C. Avoid shock. Store in a well-ventilated area. Store in a tightly closed container. Keep separated from incompatible substances. Secure to prevent tipping. Keep away from heat. Store in a cool dry place. Subject to storage regulations: OHS Act 85 of 1993

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component exposure Limits**SULFUR HEXAFLOURIDE (2551-62-4)**

ACGIH: 1000 ppm TWA

OSHA (Final): 1000 ppm TWA; 6000 mg/m³ TWA

OSHA (Vacated): 1000 ppm TWA; 6000 mg/m³ TWA

NIOSH: 1000 ppm TWA; 6000 mg/m³ TWA

COMPONENT BIOLOGICAL LIMIT VALUES:**SULFUR HEXAFLOURIDE (2551-62-4)**

ACGIH: 3 mg/g creatinine Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific); 10 mg/g creatinine Medium: urine Time: end of shift Parameter: Fluorides (background, nonspecific)

Engineering control measures

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Personal protection – respiratory

Under conditions of frequent use heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider properties before use.

Personal protection – eye/face

For the gas. Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash and quick drench shower in the immediate work area.

Clothing

For the gas. Protective clothing is not required. For the liquid: wear appropriate protective, cold insulating clothing.

Gloves

Wear insulated gloves



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Protective Material	Leather
For Unknown Concentrations or Immediate Dangerous to Life or Health	<p>Any supplied-air respirator with a full face piece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.</p> <p>Any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.</p>

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Gas	Appearance: Not available
Color: Colorless	Physical Form: Gas
Odor: Odorless	Odor Threshold: Not available
pH: Not available	Melting/Freezing Point: -50.5°C
Boiling Point: 63.9°C @ 101.3 kPa	Flash Point: Not flammable
Decomposition: Not available	Evaporation Rate: Not available
LEL: Not available	UEL: Not available
Vapor Pressure: 16548 mmHg @ 20°C	Henry's Law Constant: 4.52
Vapor Density (air=1): 5.1	Specific Gravity (water=1): 1.68
Water Solubility: Slightly Soluble	KOW: 47.867
log KOW: see Section 12	KOC: 195 (estimated)
Auto Ignition: Not available	Viscosity: 0.0156 cP @ 25°C
Sublimation Point: -63.9°C	Volatility: 100%
Volatility by Volume: 100%	Molecular Weight: 146.06
Molecular Formula: F6-S	
Solvent Solubility	
Soluble: Alcohol, ether, potassium hydroxide solutions, transformer oil.	
Slightly soluble: Ethanol	
Insoluble: Hydrochloric acid, ammonia	

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable at normal temperatures and pressure
Conditions to avoid	Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.
Possibility of hazardous reaction	Will not polymerize
Incompatible materials	Combustible materials, metals, oxidizing materials
Hazardous decomposition	Combustion: Fluorinated compounds, oxides of sulfur, sulfur compounds, hydrogen fluoride, and hydrogen sulfide.



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SECTION 11. TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity

Components analysis	The components of this material have been reviewed in various sources and no selected endpoints have been identified.
RTECS Acute Toxicity (selected)	The components of this material have been and RTECS publishes no data as of the date on this document.
Immediate Effects	Suffocation
Delayed Effects	No data available
Irritation/Corrosivity Data	No human or animal test data available.
RTECS Irritation	The documents of this material have been reviewed and RTECS publishers no data as of the date on this document.
Respiratory Sensitizer	No data available
Dermal Sensitizer	No data available
Carcinogenicity	SULFUR HEXAFLUORIDE (2551-62-4)
Component carcinogenicity	ACGIH: A4 – Not Classifiable as a Human carcinogen
Mutagenic Data	No data available
Reproductive Effects Data	No data available
Turmorigenic Data	No data available
Specific target Organ Toxicity – Single Exposure	Simple asphyxiant
Specific target Organ Toxicity – Repeated Exposure	No data available
Aspiration Hazards	Not applicable
Medical Conditions Aggravated by Exposure	None Known

SECTION 12. ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity	No LOLI ecotoxicity data are available for this product's components.
Persistence & Degradability	No data available
Bioaccumulative Potential	No data available
Mobility in Environmental Media	No data available



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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Disposal packaging

Dispose in accordance with all applicable regulations

SECTION 14. TRANSPORT INFORMATION

US DOT Information

Shipping Name: Sulfur Hexafluoride
UN/NA #: UN1080 **Hazard Class:** 2.2

Required Label (s): 2.2

IMDG Information

Shipping Name: Sulfur Hexafluoride
UN #: UN1080 **Hazardous Class:** 2.2

SECTION 15. REGULATORY INFORMATION

Component Analysis

SARA 311/312 Hazardous Categories

Acute Health: Yes **Chronic Health:** No **Fire:** No **Pressure:** Yes **Reactivity:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances list

Component	CAS	CA	MA	MN	NJ	PA	RI
SULFUR HEXAFLUORIDE	2551-62-4	Yes	Yes	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
SULFUR HEXAFLUORIDE	2551-62-4	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

SECTION 16. OTHER INFORMATION

NFPA Ratings: Health: 1 **Fire:** 0 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe.

End of Sheet MAT 22300