A 1 ACID PRIVATE LIMITED

MATERIAL SAFETY DATA SHEET

OLEUM

1. Identification :

Substance Identification	:	Fuming Sulphuric Acid
Company Address	:	CHEMICAL INITIATIVES (Pty) Limited, Private Bag X137, Bryanston, Gauteng, 2025
Emergency Telephone Number	:	(011) 608-3300 or Toll free 0800-1144455

2. Composition and Ingredients :

COMPONENT		CONCENTRATION
Sulphuric Acid	:	103 - 106%
Free Sulphur Trioxide	:	20 to 40%

3. Hazards :

May cause corrosion to skin, eyes and respiratory tract.
Inhalation of fumes at high concentration may be fatal.
May react with organic compounds to cause fire and explosion.

4. First Aid :

Specific Immediate Treatment		
Inhalation	:	Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention.
Skin Contact	:	Remove contaminated clothing. Wash skin with water. Obtain immediate medical attention.
Eye Contact	:	Immediately irrigate with clean water, holding eyelids apart, for at least 20 minutes. Obtain immediate medical attention.
Ingestion	:	Wash out mouth with water and give 200-300ml (half a pint) of water to drink. Do not induce vomiting. Obtain immediate medical attention.
Further Professional Medical Assistance	:	Symptomatic treatment and supportive therapy as indicated. Following severe exposure, the patient should be kept under medical review for at least 24 hours as delayed lung oedema may develop.

5. Fire fighting :

FLASH POINT: - AUTOIGNITION TEMP: LEL: UEL:
Non-flammable.
May cause reaction that could cause and assist fire and explosion.

Requirements for fire fighting		
Extinguishing Media	:	CO_2, Dry powder and water carefully.
Combustion Products	:	Toxic fumes of the oxides of sulphur.

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6. Accidental Release :		
Personal Protection	:	As a minimum, use chemical -resistant gloves, eye/face and breathing protection.
Environmental Precaution	:	Downwind evacuation may be necessary.
Methods for claning up	:	Contain spillages by damming or construction of barriers. Neutralise with alkali (eg. soda ash). If possible absorb with earth or non-organic absorbent material then shovel or pump into dry well-labelled containers for disposal or recovery. Wash spillage area with large amounts of water.
7. Handling and Storage :		
Handling	:	Avoid contact with skin and eyes. Do not breath fumes. Provide adequate ventilation.
Storage	:	Store in stainless steel or glass, in well ventilated area, away from sunlight and moisture. Keep away from strong bases and organic compounds.
8. Exposure and Personal Protection :		
TLV-TWA: 1mg/m^3 (as sulphuric acid) TLV-STEL: 3mg/m^3 (as sulphuric acid) (ACGIH 92 to 93) As a minimum use chemical-resistant gloves, apron, eye protection and breathing protection.		
9. Physical and Chemical Properties :		
Appearance	:	Colourless to cloudy viscous liquid.
Odour	:	Choking fumes
Boiling Point	:	100 to 140 °C
Freezing Point	:	-9 to 30 °C
Density (g/ml)	:	1,8 at 20 °C
Solubility (water)	:	0,001 at 20 °C
10. Stability and Reactivity :		
Hazardous reaction	:	May react violently if in contact with strong bases, water, organic compounds and base metals.
Decomposition/combustion products	:	The oxides of sulphur and hydrogen when in reaction with metals.

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11. Toxicology :		
Inhalation	:	May cause corrosion, pain, vomiting, burns to the mouth and throat and perforation of the oesophagus. Inhalation of the fumes may cause fluid build up on the lung (pulmonary oedema) up to 24 hours after exposure, which could prove fatal.
Skin Contact	:	May cause severe and third degree burns.
Eye contact	:	May cause corrosion and permanent damage if eye is not immediately irrigated.
Ingestion	:	No effects except those secondary to tissue damage.
Long Term Exposure	:	Prolonged/repeated contact may cause redness, cracking and dermatitis of the skin.

12. Ecology :
Users should ensure that they comply with local, provincial and national environmental legislation. Environmental fate and mobility : May be very dangerous if allowed to enter drinking water intakes. Persistence, degradation, bio-accumulation : Fish toxcity critical conc. = 10mg/l (7,34mg/l/48 hrs-Lymnaea Palustris 0-100% mortality). Effect on effluent treatment: Harmful to aquatic life in low concentrations.

13. Disposal :
Disposal should be in accordance with relevant legislation. Do not dispose of waste into the sewer system.

14. Transport :		
Hazchem Code	:	4WE
UN No.	:	1831
IMDG Class	:	8 (9.2)
Packing Group	:	I
Proper Shipping Name	:	Sulphuric Acid (fuming)

15. Regulations :
Users should ensure that they comply with relevant legislation. Dangerous Substances Directive 67/548/ECC

C	:	Corrosive
R14	:	Reacts violently with water
R35	:	Causes severe burns
R37	:	Irritating to respiratory system.
S26	:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S30	:	Never add water to this product.

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16. Other :
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