MATERIAL SAFETY DATA SHEET
OLEUM

Section 1 – Identification of Supplier

Product name: Oleum; fuming sulphuric acid; Pyrosulphuric acid.

Shipping name: Oleum; fuming sulphuric acid; Pyrosulphuric acid.

Suppliers details: Chemical Initiatives (Pty) Ltd
Address: AECI Place, Building 24, The Woodlands, Woodlands Drive, Woodmead, 2196, South Africa.

Telephone number	**Emergency number**
+27 11 8068700	+27 11 608 3300

Section 2 – Hazard Identification

Component	**Label elements**	**Precautions Statement:**	**Other Hazards:**
Sulphuric acid	 **Warning:** Highly corrosive.	Wear acid proof gloves, face protection and acid proof protective clothing.	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

Section 3 – Composition / Information on Ingredients

Component	**Concentration**
Sulphuric acid	103 – 106 %

Section 4 – First Aid Measures

Inhalation: Remove patient from exposure. If breathing has stopped, perform artificial respiration. If breathing is difficult, give oxygen. **Obtain immediate medical attention.**

Skin contact: Remove contaminated clothing. Wash skin with water for 20 minutes. **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 of water to drink. Do not induce vomiting. **Obtain immediate medical attention.**

Further processional 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.

Section 5 – Fire Fighting Measures

Flash point: Not combustible.

LEL: not applicable.

UEL: not applicable.

Extinguishing media agent: Dry chemical, foam or carbon dioxide (CO_2).

Combustion products: Toxic fumes of the oxides of sulphur.

May cause reaction that could cause and assist fire and explosion.

Section 6 – Accidental Release Measures

Personal Protection: As a minimum, use PVC acid proof gloves, eye/face and breathing protection.

Environmental precaution: Downwind evacuation may be necessary**.**

Methods for cleaning up: Contain spillages by damaging or construction of barriers. Neutralize with alkaline material (e.g. soda ash or lime), 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.

Section 7 – Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Do not breathe fumes. Provide adequate ventilation.

Precautions for safe storage: Store in stainless steel or glass, in well ventilated

area, away from sunlight and moisture. Keep away from strong bases and organic compounds.

Section 8 - Exposure Controls and Personal Protection

Components:

TLV-TWA: 1 mg/m^3 TLV-STEL: 3 mg/m^3 ACGOJ: 92 to 93

As a minimum, use PVC acid proof gloves, eye/face and breathing protection.

Section 9 – Physical and Chemical Properties

Appearance:	Colourless hygroscopic viscous liquid
Odour:	Choking fumes
Boiling point:	100 – 140 °C
Freezing point:	– 9 to – 30 °C
Vapour pressure:	0.001 at 20 °C
Relative density (g/ml):	1.8 at 20 °C

Section 10 – Stability and Reactivity

Hazardous reaction and decomposition: May react violently if in contact with strong bases, water, organic compounds and base metals.

Hazardous decomposition products: The oxides of sulphur and hydrogen when in reaction with metals.

Section 11 – Toxicology

Eye contact: May cause severe second and third degree burns.

Ingestion: Causes serious burns to the mouth or perforation of the oesophagus or stomach. May be fatal if swallowed.

Inhalation: May cause corrosion, pain, vomiting, burns to the mouth and throat and perforation of the oesophagus. Inhalation of the fumes may cause fluid buildup in the lung (pulmonary oedema) up to 24 hours after exposure which could prove fatal.

Long term exposure: Prolonged/repeated contact may cause redness, cracking and dermatitis of the skin.

Section 12 – Ecological Information

Users should ensure that they comply with environmental legislation.

Environmental fate and mobility: When released into the soil, this material may leach into ground water. When released into air, this material may be removed from the atmosphere to a moderate extent by wet or dry deposition.

Persistence, degradation, bio-accumulation: Fish toxicity critical conc. = 10mg/l to 4mg/l in 48hrs – Lymnaea palustris 0 – 100% mortality.

Effect on effluent treatment: Harmful to aquatic life in low concentration.

Section 13 – Disposal Considerations

Whatever cannot be saved for recovery of recycling, should be handled as hazardous waste. Disposal should be in accordance with relevant legislation. Do not dispose of waste into the sewer system.

Section 14 - Transport

	Land	**Air**	**Sea**
UN:	1831	1831	1831
Proper Shipping name:	Sulphuric Acid. (Fuming)	Sulphuric Acid. (Fuming)	Sulphuric Acid. (Fuming)
Transport Hazard Classes:	8 (corrosive substances)	8 (corrosive substance)	8 (corrosive substance)
Packing Group:	I	I	I
Subsidiary Risk:	6.1	6.1	6.1
ERG:	137	137	137
Marine Pollutant:	No	No	No

Section 15 – Regulatory Information

Users should ensure that they comply with relevant local, state or national legislation.

Section 16 – Other Information

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