



## **ATUL LIMITED**

### Bulk Chemicals & Intermediates Division

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### **MATERIAL SAFETY DATA SHEET**

<b>SECTION 1 CHEMICAL PRODUCT IDENTIFICATION</b>		
<b>TRADE NAME</b>	Oleum	
<b>CHEMICAL NAME</b>	Sulfuric acid & Sulfur trioxide	
<b>EMERGENCY CONTACT NO.</b>	(02632) 233261 to 233265	
<b>SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS</b>		
<b>INGREDIENTS</b>	<b>CAS #</b>	
Sulphuric acid 98 % Sulfur Trioxide	7664-93-9 7446-11-9	
<b>SECTION 3 HAZARDS IDENTIFICATION</b>		
<p>Can cause severe burns or irritation. Liquid contact can cause severe burns to eyes, irritation or blindness. May cause permanent injury to eyes. Avoid contact with skin.</p> <p>Inhalation of fumes or acid mist can cause irritation or corrosive burns to the respiratory system (nose, mouth and throat). Lung irritaion in case of prolonged exposure.</p> <p>Ingestion may be fatal.</p>		
<b>SECTION 4 EMERGENCY AND FIRST AID PROCEDURES</b>		
<b>EYE CONTACT</b>	Flush eyes with water for 15 minutes. Hold eyelids open while washing. Seek medical attention if irritation persists.	
<b>SKIN CONTACT</b>	Wash off with water. Remove clothing. Shower thoroughly. IMMEDIATELY remove contaminated clothing and drench affected area with running water for 20 minutes. Seek medical attention.	
<b>INHALATION</b>	Move to fresh air. & remove from contaminated area. Give oxygen. CPR if indicated.	
<b>INGESTION</b>	Do not induce vomiting. Rinse mouth. Immediately give plenty of water to drink. Prompt medical attention is vital.	
<b>SECTION 5 FIRE FIGHTING MEASURES</b>		
<b>Flash Point</b>	Non Flammable	
<b>Autoignition temperature</b>	Not applicable	
<b>Lower Explosive limit</b>	Not applicable	
<b>Upper Explosive limit</b>	Not applicable	
<b>EXPLOSION HAZARD</b>	Flammable and potentially hazardous gas can be generated inside metal drums and storage tanks.	
<b>FIRE EXTINGUISHING MEDIA</b>	Use water spray or other suitable agent to fires adjacent to non leaking tanks or other containers of sulfuric acid. Do not use solid water streams near ruptured tanks or spills of sulfuric acid. Sulfuric acid reacts violently with water generating heat. Cool non leaking fire-exposed containers with water spray.	
<b>SECTION 6 ACCIDENTAL RELEASE MEASURES</b>		
<p>Personal protection: As a minimum use chemical-resistant gloves, eye/face and breathing protection. Environmental precautions: Downwind evacuation may be necessary. Methods for cleaning up: Contain spillages by damming or construction of barriers. Neutralize with alkali (e.g. 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.</p>		

**SECTION 7 HANDLING AND STORAGE**

Handling Avoid contact with skin and eyes. Do not breathe 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.

**SECTION 8 PERSONAL PROTECTION INFORMATION**

<b>RESPIRATORY PROTECTION</b>	Provide self-contained breathing apparatus or an airline mask.
<b>SKIN PROTECTION</b>	Complete protective body overclothing, rubber hand gloves and shoes.
<b>EYE PROTECTION</b>	Side covered safety goggles / face shield
<b>VENTILATION</b>	Provide sufficient ventilation at the storage place for fumes in case of leakage.

**SECTION 9 PHYSICAL DATA**

<b>BOILING POINT (°C)</b>	330 ° C	<b>FREEZING POINT (°C)</b>	3 ° C
<b>SPECIFIC GRAVITY</b>	1.84	<b>SOLUBILITY IN WATER</b>	Soluble
<b>APPEARANCE AND ODOR</b>	Colourless to cloudy oily liquid	<b>MOLECULAR WEIGHT</b>	98

**SECTION 10 REACTIVITY DATA**

<b>STABILITY</b>	Chemically stable
<b>INCOMPATIBILITY</b>	Water, Steam , Reacts with alkalis generating heat.Diluted acid reacts with most metals and generates highly flammable hydrogen.
<b>OTHER</b>	Strong acid generates sulphur dioxide.

**SECTION 11 TOXICOLOGICAL INFORMATION**

<b>LC<sub>50</sub></b>	347 mg/kg
<b>Other</b>	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 second 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.

**SECTION 12 ECOLOGICAL INFORMATION**

<b>AQUATIC TOXICITY</b>	No ecological problems are expected when the product is handled and used with due care. Users should ensure that they comply with environmental legislation. Environmental fate and mobility: May be very dangerous if allowed to enter drinking water intakes. Persistence, degradation and bioaccumulation: Fish toxicity critical conc. = 10mg/l (7.34 mg/l/48hrs - Lymnaea Palustris 0-100% mortality) Effect on effluent treatment: Harmful to aquatic life in low concentrations.
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**SECTION 13 DISPOSAL CONSIDERATION**

There are no uniform EC regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste. Disposal in accordance with local legal provisions.

**SECTION 14 TRANSPORT INFORMATION**

UN No 1830	Hazchem Code 2p
EAC 59	ERG No. 137
IMDG Code 8220	IMDG-Packaging Group II
Marine Pollutant yes	Class : Class: 8 Corrosive Group: II
Subsidiary Risks : None	

**SECTION 15 REGULATORY INFORMATION**

EC Hazard Classification : Users should ensure that they comply with relevant legislation.  
Dangerous Substances Directive 67/548/ECC

Risk Phases: Causes severe burns

Safety Phases: Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
NEVER ADD WATER TO THIS PRODUCT

**SECTION 16 OTHER INFORMATION**

NFPA	HMIS	
	HEALTH	3
	FLAMM.	0
	REACT.	2

This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. While this information and recommendations set forth are believed to be accurate as of the date hereof, ATUL LIMITED makes no warranty with respect hereto and disclaims all liability from reliance thereon.