

PRODUCT SPECIFICATION: SPE.PROD.0004

Section 1 – GENERAL	
Product Name:	Sulphuric Acid, Industrial, 98/100%
Description:	Sulphuric acid, H ₂ SO ₄ , is a colourless to dark grey, light yellow or light purple, slightly turbid, oily, corrosive liquid
Properties:	Density at 20 °C : 1,83 g/cm ³ Viscosity at 25 °C : 22 mPa.s Boiling point at 101,3 kPa : 330 °C Specific heat at 20 °C : 1,42 J/g °C Vapour pressure at 55 °C : < 1,2 Pa
Toxicity:	Has a rating of 4 according to the Clinical Toxicology of Commercial Products (extremely toxic). The probable lethal dose (to humans) is 50-500 mg/kg of body mass. TWA OEL-RL: 1 mg/m ³
Hazards:	<p>The material is extremely corrosive to body tissue and contact with concentrated acid results in rapid destruction of tissue, causing severe burns. Ingestion may cause severe injury and can result in death. Repeated contact with dilute solution causes dermatitis. Inhalation of concentrated vapours and mists results in serious damage to lung tissue and can cause unconsciousness. Eye contact may result in serious damage and total loss of vision.</p> <p>The material is a very powerful acidic oxidizer which can ignite or even explode on contact with many materials; i.e. acetic acid, carbides, chlorates, fulminates, perchlorates, etc. It reacts with water and steam evolving considerable heat. When heated the material emits highly toxic fumes. Dilute acid is corrosive to most metals with evolution of flammable hydrogen.</p>
Special Precautions:	Full protective clothing and a face shield must be worn when handling the material. Avoid ingestion, inhalation, skin and eye contact. Store away from combustibles, strong oxidising or reducing materials. Always add acid slowly to diluents.

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Statutory Aspects:	UN 1830. Transported as Dangerous Good. Chemical Initiatives (Pty) Ltd: Material Safety Data Sheet. Occupational Health and Safety Act, No:85 OF 1995
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Section 2 – SPECIFICATION

Appearance:	The material is a colourless to dark grey or light yellow or brown, slightly turbid, oily liquid, virtually free from foreign/suspended matter.
Strength:	Not less than 98 % (m/m) as H ₂ SO ₄
Iron:	Not more than 100 p.p.m. (m/m) as Fe

Section 3 – TESTING

The material is sampled and tested according to the most recent editions of the Sampling Procedures and Analytical Schedule respectively. The sample is tested to the most recent edition of the method specified.

<u>PARAMETER</u>	<u>METHOD NO.</u>
3.1 Appearance	UMBOG 54
3.2 Strength	UMBOG 54
3.3 Iron	UMBOG 54

This product is manufactured and tested at:
Umbogintwini and other traded acid facilities.

Section 4 – PACKING

Bulk in road and rail tankers, IBC's and polycans.

Section 5 – DOCUMENTATION

This specification is based on: Information from Umbogintwini Factory.

Section 6 – USES

i) For the pickling of steel

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- ii) In the manufacture of fertilisers
- iii) In the manufacture of explosives
- iv) As an industrial chemical

Section 7 – REASON FOR REVISION

May 2013 – New template