

**PRODUCT SPECIFICATION: SPE.PROD.0005**

Section 1 – GENERAL	
<b>Product Name:</b>	Sulphuric Acid, Industrial, 75/78% (ex Umbogintwini)
<b>Description:</b>	An aqueous solution of sulphuric acid, H <sub>2</sub> SO <sub>4</sub> , in the form of a colourless, to light grey or light brown, corrosive liquid, which may contain sediment.
<b>Properties: (76% Sulphuric Acid)</b>	Density at 20 °C : 1,681 g/cm <sup>3</sup> Viscosity at 20 °C : 15,3×10 <sup>-3</sup> Pa.s Viscosity at 25 °C : 13,1×10 <sup>-3</sup> Pa.s Boiling point @ 101,3 kPa : 185 °C Specific heat at 20 °C : 1,95 J/g °C Vapour pressure at 55 °C : ca. 327 Pa
<b>Toxicity:</b>	The material is extremely toxic with a rating of 4 in the Clinical Toxicology of Commercial Products. The probable lethal dose (to humans) is 50 to 500 mg/kg of body mass. TWA OEL-RL : 1 mg/m <sup>3</sup>
<b>Hazards:</b>	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. 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.
<b>Special Precautions:</b>	Full protective clothing and a face shield must be worn when handling the material. Avoid ingestion, inhalation, skin and eye contact. Store

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	away from combustibles, strong oxidising or reducing materials. Always add acid slowly to diluents.
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**Section 2 – SPECIFICATION**

<b>Appearance:</b>	The material is a colourless to light grey or light brown liquid, essentially free from foreign matter.
<b>Strength:</b>	To lie within the range 75,0 to 78,0 % (m/m) as H <sub>2</sub> SO <sub>4</sub>

**Section 3 – SUPPLIER**

Refineries and Chemical Initiatives (Pty) Ltd, Umbogintwini

**Section 4 – 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	
3.2 Strength	UMBOG 054

This product is manufactured and tested at: Umbogintwini Factory

**Section 5 – PACKING AND USERS**

Packing - By Pipeline.

Uses - In the manufacture of chemicals.

**Section 6 – DOCUMENTATION**

This specification is based on: Information from Umbogintwini Factory.



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**Section 7 – REASON FOR REVISION**

June 2013 – New template