

**PRODUCT SPECIFICATION: SPE.PROD.0013**

Section 1 – GENERAL	
<b>Product Name:</b>	Aluminium Sulphate Solution, Iron-Free (Levers Grade)
<b>Description:</b>	Essentially an aqueous solution of aluminium sulphate, $Al_2(SO_4)_3$ , in the form of an off-white, slightly opalescent liquid.
<b>Properties:</b>	Density at 20 °C : 1,33 g/cm <sup>3</sup>
<b>Toxicity:</b>	<p>The material has a rating of 2 in Clinical Toxicology of Commercial Products (slightly toxic).            The probable lethal dose (to humans) is 5 to 15 g/kg of body weight.</p> <p>TLV-TWA : 2 mg/m<sup>3</sup> (as Aluminium soluble salts)</p> <p>(According to The Occupational Health and Safety Act, Act 85 of 1993, as amended).</p>
<b>Hazards:</b>	Ingestion of this material may cause abdominal pain. Contamination of the eye surface with this material may cause redness and pain.
<b>Special Precautions:</b>	Avoid ingestion and prolonged contact with the skin and eyes.
<b>Statutory Aspects:</b>	UN 1760. Transported as Dangerous Good. Chemical Initiatives (Pty) Ltd: Material Safety Data Sheet. Occupational Health and Safety Act, No:85 of 1995

Section 2 – SPECIFICATION	
<b>Appearance:</b>	The material is an off-white opalescent liquid, virtually free from visible impurities and foreign matter.
<b>Strength:</b>	In the range 7,5 % to 8,2 % (m/m) as $Al_2O_3$
<b>Insoluble Matter:</b>	Not more than 0,025 % (m/m)

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<b>Iron:</b>	Not more than 70 ppm (m/m) as Fe
<b>pH (0,1 M solution):</b>	In the range 2,0 to 2,5 (For Umbogintwini Product only)

**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>TEST</u>	<u>METHOD NO.</u>
3.1 Appearance	-
3.2 Strength	UMBOG No. 53
3.3 Insoluble Matter	UMBOG No. 53
3.4 Iron	UMBOG No. 53
3.5 pH (0,1 M solution)	UMBOG No. 53

This product is manufactured and tested at: Umbogintwini Factory.

**Section 4 – PACKING**

The material is supplied in bulk.

**Section 5 – DOCUMENTATION**

This specification is based on: Information from Umbogintwini Factory.

**Section 6 – USES**

As a sizing agent in paper manufacture.  
 As an additive in the manufacture of ammonium nitrate.  
 Used in detergents

**Section 7 – REASON FOR REVISION**

June 2013 – New template