

**PRODUCT SPECIFICATION: SPE. 0027**

Section 1 – GENERAL	
<b>Product Name:</b>	Nitric Acid
<b>Description:</b>	Essentially an aqueous solution of nitric acid, HNO <sub>3</sub> , in the form of a clear colourless to pale yellow, fuming, corrosive liquid with a pungent odour.
<b>Properties:</b>	Density at 20 °C :1.37g/cm <sup>3</sup> Boiling point at 101.3kPa : ca. 118°C (at 121,5°C, a constant boiling mixture containing about 68% of HNO <sub>3</sub> is formed) Viscosity at 20°C : ca. 2.4mPa.s Vapour pressure at 55°C : 7.45kPa
<b>Toxicity:</b>	The material is slightly corrosive to all parts of the body. Nitric acid vapour is highly irritating to the respiratory tract and NO <sub>x</sub> gases can have delayed poisoning effects possibly fatal.
<b>Hazards:</b>	Ingestion of this material may cause abdominal pain, severe burns and eye damage.
<b>Special Precautions:</b>	Self-contained breathing apparatus should always be worn where there is a risk of exposure to nitric acid fumes or decomposition fumes exits. Full body and eye protection to be worn.  TWA: 2ppm (8 Hours) STEL: 4 ppm(15 Minutes)
<b>Statutory Aspects:</b>	UN 2013, Class 8. Transported as Dangerous Good. Chemical Initiatives (Pty) Ltd: Material Safety Data Sheet. Occupational Health and Safety Act, No:85 OF 1995

**PRODUCT SPECIFICATION: SPE. 0027****Section 2 – SPECIFICATION**

<b>Appearance:</b>	Not more than the following Lovibond units: Red: 0.5 Yellow: 2.0 Blue: 0.4
<b>Strength:</b>	Not less than 55% (m/m) as HNO <sub>3</sub>
<b>Non Volatiles:</b>	Not more than 30ppm (m/m)
<b>Iron:</b>	Not more than 5ppm (m/m) as Fe
<b>Chlorides:</b>	Not more than 1ppm (m/m) as Cl

**Section 3 – TESTING**

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

**Section 4 – PACKING**

Storage in stainless steel tanks. The material is supplied in bulk in road tankers.

**Section 5 – DOCUMENTATION**

This specification is based on information supplied by the manufacturer.

**Section 6 – USES**

As an analytical reagent  
In the manufacture of pure chemicals and pharmaceuticals.  
Use as an industrial chemical

**Section 7 – REASON FOR REVISION**

Revision One- New document