



# Technical Data Sheet

## NITRIC ACID 58%

<b>Chemical Formula</b>	: HNO <sub>3</sub>
<b>Molecular Weight</b>	: 63.01 g/mol
<b>EC No.</b>	: 231-714-2
<b>CAS No.</b>	: 7697-37-2

Parameters	
Appearance	Pale yellow liquid
Assay	58-59 %
Weight/mL at 20°C	1.35 g
Residue on ignition	Max 0.00045
Chloride (Cl)	Max 0.00005
Phosphate and silicate (as SiO <sub>2</sub> )	Max 0.0001
Sulphate (SO <sub>4</sub> )	Max 0.00007
Arsenic (As)	<0.0001
Copper (Cu)	N/D
Iron (Fe)	Max 0.000004
Heavy metal (as Pb)	N/D
Manganese (Mn)	N/D

### Product description:

NITRIC ACID is created by oxidizing anhydrous ammonia over a platinum catalyst at extreme temperatures. The resultant gases, nitric oxide and nitrogen dioxide, or NO<sub>x</sub>, are cooled and absorbed into demineralized water. Apart from the hydrogen and nitrate ions, NITRIC ACID will not contain any ions unless they were present in the water source used for absorbing the acid gas or in the compressed air used in the process. The product acid is clear and colorless to slightly yellow. The common yellow discoloration in NITRIC ACID is directly proportional to the level of oxides of nitrogen dissolved in the solution. This is HNO<sub>2</sub> or nitrous acid. It can be minimized using various techniques from process air bleaching to inert chemical addition. The acid is miscible with water in all portions accompanied with a rise in temperature.

### Hazardous shipping description:

- NITRIC ACID solutions are placarded corrosive and are transported under a hazard classification 8.
- The shipment will be marked with international transportation number UN 2031 which may be incorporated into the placard.
- Consult MSDS #1023 for more specific and comprehensive information about chemical hazards.



# Technical Data Sheet

## Application recommendations:

- NITRIC ACID is a strong oxidizing agent and reacts violently with oxidizable organic substances to the point that ignition can occur with the higher concentrations of this acid. This chemical is used for nitration of organics for the production in plastics, surface coatings, dyes, pesticides and explosives.

## Transportation, storage and handling:

- NITRIC ACID is highly corrosive to human tissue.
- ALWAYS wear liquid impervious clothing, gloves and boots.
- ALWAYS protect eyes and face with shield when loading.
- NITRIC ACID has a high vapor pressure and begins to vaporize into a white fume at warm ambient temperatures. Breathing high concentrations of the fume can cause severe respiratory problems.
- NEVER use NITRIC ACID as a substitute where mineral acids are typically used.

## Packaging:

1000 ltr IBC.

## Important:

For a better suitability of the product for your particular purpose, tests are recommended prior product use. You are advised to make your own determination as to safety, appropriate manner of handling, storage, use and disposal. All the information contained in this product technical sheet is offered for your consideration, investigation and verification. The data is presented in good faith and is believed to be reliable. You should not consider the descriptions, information, data or design as a part of our terms and conditions of sale. We expressly disclaim responsibility or liability for any loss, damage or expense arising out of reliance on the information provided herein.