



TECHNICAL DATA SHEET

NITRIC ACID

Concise Industrial Technical Summary

This concise Technical Data Sheet summarizes the essential industrial information for Nitric Acid for professional B2B use.

PRODUCT NAME & CAS NUMBER

Product Name	Nitric Acid
Chemical Formula	HNO ₃
CAS Number	7697-37-2

MAIN APPLICATIONS

- Fertilizer and nitrate salt production
- Metal treatment, pickling, and surface passivation
- Chemical synthesis and nitration processes
- Production of explosives, dyes, and intermediates
- Laboratory reagent and analytical applications
- Industrial cleaning and etching applications

KEY PROPERTIES

Appearance	Colorless to pale yellow clear liquid
Odor	Sharp, acrid odor
Purity	Typically 55-68% commercial grade; higher grades available by specification
Density	Approx. 1.33-1.42 g/cm ³ at 20 deg C, depending on concentration
Solubility	Completely miscible with water
pH	Strongly acidic; pH < 1 in aqueous solution



STORAGE CONDITIONS

Store in a cool, dry, well-ventilated area away from direct sunlight, heat sources, combustible materials, organic substances, reducing agents, alkalis, and incompatible metals. Keep containers tightly closed in corrosion-resistant packaging and handle only with appropriate chemical-resistant PPE.

TECHNICAL DISCLAIMER

Technical Disclaimer: The information provided in this Technical Data Sheet is based on generally accepted industrial data and is intended for professional reference only. Users must verify suitability for their specific application and comply with applicable safety, handling, transport, and regulatory requirements.