

Nitric Acid

CAS 7697-37-2 · HNO_3 · 60% / 68% technical / 98% CNA

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1. Product identity

Product name	Nitric Acid
Synonyms	aqua fortis, HNO_3 , weak nitric acid, CNA
C.A.S. number	7697-37-2
Molecular formula	HNO_3
Molecular weight	63.01 g/mol
Grade supplied against	60% / 68% technical / 98% CNA
Appearance	Colourless to pale yellow liquid with a pungent, suffocating odour; yellows progressively on storage or exposure to light as nitrogen dioxide forms, and fumes in moist air
Product group	Mineral & Organic Acids
HSN code	2808 00 10
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	Road tanker · 275 kg drum / SS tanker · 300 kg drum
Storage	Store in a cool (BASF/Teco SDS indicate roughly 5-30 C), dark, well-ventilated place out of direct sunlight and away from heat; nitric acid decomposes in light, evolving NO_2 and building pressure in closed containers, so use vented closures. Storage class 5.1B (oxidising substances). Use 316L stainless steel, PTFE-lined or glass containment; avoid ordinary carbon steel, copper, brass and aluminium. Keep strictly segregated in a separate bund from combustibles, organic chemicals, reducing agents, bases, cyanides and metal powders — do not store on wooden pallets or shelving. Keep only in the original or an approved container. Provide eyewash, safety shower and an inert absorbent (never sawdust or other combustible absorbent) for spills.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	Colourless to pale yellow liquid with a pungent, suffocating odour; yellows progressively on storage or exposure to light as nitrogen dioxide forms, and fumes in moist air	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed
3	Assay / grade	60% / 68% technical / 98% CNA	Titrimetry or instrumental, per method agreed
4	Physical state	Liquid	Visual

S. No.	Test parameter	Specification	Method
5	Solubility in water	Miscible with water in all proportions (>500 g/L); mixing evolves heat	Per the test method agreed
6	pH	<1 (as supplied, 68%)	Potentiometry
7	Relative density	1.405 g/cm ³ at 20 C (68% acid, BASF SDS)	Densitometry / hydrometry
8	Melting / freezing point	-38 C (68% acid, BASF SDS); -35.9 C (68% acid, RCI Labscan SDS)	Capillary / thermal
9	Boiling point	121 C (68% acid — BASF SDS and ILO ICSC 0183)	Distillation range
10	Flash point	Not flammable — but it is an oxidiser (Ox. Liq. 3, H272) and can ignite combustible material such as wood, paper, rags and sawdust on contact	Not applicable — the substance is not combustible
11	Additional parameters	To the specification agreed before order	As agreed

3. Transport classification

UN 2031 · Class 8 (5.1) — Class 8 corrosive with a Class 5.1 oxidiser subsidiary hazard; ADR classification code CO1; labels 8 + 5.1 · Packing group II

Proper shipping name: NITRIC ACID, other than red fuming, with at least 65% but not more than 70% nitric acid

What this document is. This is a product specification sheet. It states the grade this material is supplied against, its packing and its identity. **It is not a certificate of analysis, it carries no test results, and it certifies no batch.** Tested values for the consignment actually loaded appear on the batch certificate of analysis issued against that batch, which travels with the despatch documents. Identity and physical data are drawn from PubChem, the ECHA CLP inventory and ILO safety cards; the producer's documents for the grade quoted govern. Velora Chemicals Private Limited is a bulk supplier and trader, not a manufacturer.