

Phosphoric Acid

CAS 7664-38-2 · H_3PO_4 · 85% technical & food grade

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1. Product identity

Product name	Phosphoric Acid
Synonyms	orthophosphoric acid, H_3PO_4 , food grade phosphoric acid
C.A.S. number	7664-38-2
Molecular formula	H_3PO_4
Molecular weight	98.00 g/mol
Grade supplied against	85% technical & food grade
Appearance	Clear, colourless, odourless, syrupy viscous liquid; technical grade may be pale straw or faintly green-tinged
Product group	Mineral & Organic Acids
HSN code	2809 20 10
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	Road tanker · 330 kg drum
Storage	Store above 20 C (Chem-Lab SDS) in a well-ventilated area, because 85% acid crystallises at about 21 C — heated or insulated storage, or trace heating, is normal. Use 316L stainless steel, HDPE, PE- or rubber-lined steel, FRP or glass. Keep containers tightly closed and away from strong bases, reactive metals, oxidisers, azo compounds and epoxides, and from food and feedstuffs. Bund the area and provide eyewash and safety shower.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	Clear, colourless, odourless, syrupy viscous liquid; technical grade may be pale straw or faintly green-tinged	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed
3	Assay / grade	85% technical & food grade	Titrimetry or instrumental, per method agreed
4	Physical state	Liquid (viscous). Note that 85% acid crystallises to a solid at about 21 C	Visual
5	Solubility in water	Miscible with water in all proportions; also soluble in ethanol	Per the test method agreed

S. No.	Test parameter	Specification	Method
6	pH	1.5 (0.1 N aqueous solution — Alliance Chemical SDS); <1 as supplied at 85%	Potentiometry on an aqueous suspension
7	Relative density	1.685-1.692 g/cm ³ at 20 C for 85% technical grade (Alliance Chemical SDS); Chem-Lab quotes 1.71 g/mL for 85% a.r.	Pyknometry or gas displacement
8	Melting / freezing point	21 C — crystallisation point of the 85% acid (Alliance Chemical and Chem-Lab SDS). Pure anhydrous H ₃ PO ₄ melts at 42 C (ILO ICSC 1008)	Thermal analysis
9	Boiling point	158 C for the 85% acid (Alliance Chemical and Chem-Lab SDS). ILO ICSC 1008 notes that the pure acid decomposes at 213 C	Distillation range
10	Flash point	Not flammable (not applicable). Caution: attacks many metals with evolution of flammable hydrogen gas	Not applicable — the substance is not combustible
11	Additional parameters	To the specification agreed before order	As agreed

3. Transport classification

UN 1805 · Class 8 (Corrosive) · Packing group III

Proper shipping name: PHOSPHORIC ACID SOLUTION

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.