



SAFETY DATA SHEET

PHOSPHORIC ACID (FOOD GRADE, 85%)

CAS No.: 7664-38-2

This Safety Data Sheet is compiled from well-established published chemical, GHS classification and regulatory reference sources for this substance. It is supplied by Suraj Chemicals as the distributor/supplier of record and is not a manufacturer-issued document. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

Product Name	Phosphoric Acid (Food Grade, 85%)
CAS Number	7664-38-2
Recommended Use	Industrial / commercial chemical trading and distribution
Supplier	Suraj Chemicals, No 92, Govindappa Naicken Street, Shiva Complex, Chennai - 600001, India
Emergency Telephone	+91 - 9840284032, 9176135357 / +91 - 44 - 25393652

2. HAZARD(S) IDENTIFICATION

GHS Signal Word	Danger
HAZARD CLASSIFICATION • Corrosive to metals - Category 1 • Skin corrosion - Category 1B • Serious eye damage - Category 1 HAZARD STATEMENTS • H290 - May be corrosive to metals • H314 - Causes severe skin burns and eye damage PRECAUTIONARY STATEMENTS • P234 - Keep only in original container • P260 - Do not breathe mist or vapours • P264 - Wash exposed skin thoroughly after handling • P280 - Wear protective gloves/eye protection/face protection • P301+P330+P331 - IF SWALLOWED: rinse mouth; do NOT induce vomiting • P303+P361+P353 - IF ON SKIN (or hair): remove contaminated clothing immediately; rinse skin with water • P304+P340 - IF INHALED: remove to fresh air and keep comfortable for breathing • P305+P351+P338 - IF IN EYES: rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing • P310 - Immediately call a POISON CENTER or doctor • P390 - Absorb spillage to prevent material damage • P406 - Store in a corrosion-resistant container with a resistant inner liner	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Phosphoric Acid (Food Grade, 85%)
CAS Number	7664-38-2
Physical State	Liquid
Appearance / Odour	Colorless to faintly colored, odorless, viscous syrupy liquid.

4. FIRST-AID MEASURES

Eye Contact	Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do; continue rinsing and get immediate medical attention.
Skin Contact	Remove contaminated clothing immediately and rinse skin with plenty of water/soap for at least 15 minutes; seek medical attention.
Inhalation	Remove to fresh air and keep at rest in a position comfortable for breathing; seek medical attention if breathing difficulty occurs.
Ingestion	Rinse mouth; do NOT induce vomiting; give water to drink if the person is conscious; seek immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing media appropriate to the surrounding fire, e.g., dry chemical, CO2, foam, or water spray; product itself is non-combustible.
Unsuitable Extinguishing Media	Avoid a direct heavy water jet onto hot concentrated acid, which can cause splattering.
Special Hazards	Non-flammable but reacts with many common metals to release flammable hydrogen gas; thermal decomposition can generate corrosive phosphorus oxide fumes; wear full acid-resistant PPE and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Measures	Contain the spill, ventilate the area, neutralize cautiously with soda ash or lime, prevent entry into drains/waterways by diking, and collect residues for disposal while avoiding direct contact.
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7. HANDLING AND STORAGE

Handling Precautions	Use with adequate ventilation, avoid contact with skin and eyes, use corrosion-resistant (acid-proof) equipment, and avoid generating mist or splashing.
Storage Conditions	Store in corrosion-resistant containers (e.g., lined steel or HDPE) in a cool, dry, well-ventilated area, away from metals, bases and incompatible materials, tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / PPE	OSHA PEL / ACGIH TLV ~1 mg/m ³ (TWA); use acid-resistant gloves (neoprene, PVC), chemical splash goggles/face shield, and respiratory protection with an acid-gas/mist cartridge where mist may form.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance / Odour	Colorless to faintly colored, odorless, viscous syrupy liquid.
Boiling Point	~158 C (85% solution)
Melting Point	~21 C (85% solution; may crystallize below this)
Flash Point	Not applicable (non-flammable aqueous inorganic acid)
Density / Specific Gravity	~1.68-1.70 (specific gravity at 20 C)
Water Solubility	Miscible with water in all proportions
pH Value	<1 (concentrated 85% solution, strongly acidic)

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions; hygroscopic.
Incompatible Materials	Strong bases, most common metals (liberates hydrogen gas), strong oxidizers, chlorides, carbides.
Hazardous Decomposition	Phosphorus oxide fumes on strong heating; hydrogen gas on contact with metals.

11. TOXICOLOGICAL INFORMATION

Summary	Corrosive, causing severe skin burns and eye damage on contact; moderately toxic if swallowed (oral LD50, rat, roughly 1,500 mg/kg); not classified as a carcinogen, mutagen or reproductive toxicant; repeated mist exposure may irritate or erode teeth/respiratory tract.
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12. ECOLOGICAL INFORMATION

Summary	Primarily hazardous to aquatic life through acidification (pH depression) rather than intrinsic toxicity; readily neutralized and not persistent or bioaccumulative in the environment.
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13. DISPOSAL CONSIDERATIONS

Disposal Method	Neutralize with lime or soda ash before disposal in accordance with local regulations; do not discharge concentrated acid directly to sewers or waterways.
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14. TRANSPORT INFORMATION

UN Number	UN1805
Transport Hazard Class	Class 8 (Corrosive)
Packing Group	III

15. REGULATORY INFORMATION

Notes	Food-grade material must meet FCC/JECFA/FSSAI purity specifications for use as food additive E338; classified as a corrosive substance under GHS, OSHA HCS and EU CLP; regulated for transport under IMDG/ADR/IATA as UN1805, Class 8, Packing Group III.
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16. OTHER INFORMATION

Prepared By	Suraj Chemicals, Technical / QA Desk
Date of Issue	29 Sep 2026
Note	This SDS is compiled from well-established published GHS hazard classification data and general chemical reference sources for this substance, in the standard 16-section format. Values are believed accurate but Suraj Chemicals makes no warranty, express or implied, regarding their completeness. Users should evaluate suitability for their own specific use.

(This document is computer generated and therefore does not require any signature.)

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