
Material Safety Data Sheet

Product Name	<u>Phosphoric acid</u>
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:**Product Description:** Phosphoric acid**Cat No. :** 98190, 97190, 14190, 51190, 52190, 91190**Synonyms:** Orthophosphoric acid**CAS-No:** 7664-38-2**EC-No.:** 231-633-2**Molecular Formula:** H₃PO₄

REACH Registration No: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2. Relevant identified uses of the substance or mixture and uses advised against:**Recommended Use:** Laboratory reagents, not for food and drug**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad,
Email: info@finarchemicals.com
Web: www.finarchemicals.com
- **E-Mail Address** safety@finarchemicals.com; info@finarchemicals.com

1.4. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717
- Registered office No: +91 - 79 – 40040085

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SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture:****Classification according to Regulation (EC) No 1272/2008**

Corrosive to metals (Category 1), H290

Acute toxicity, Oral (Category 4), H302

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label Elements:**Labeling according Regulation (EC) No 1272/2008****Pictogram****Signal word****Danger****Hazard statement(s)**

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)**Prevention**

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

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2.3. Other Hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Phosphoric acid

CAS-No: 7664-38-2

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Phosphoric acid	7664-38-2	231-633-2	>/= 85

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

- **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

- **If Contact with skin**

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.
Consult a physician.

- **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

- **If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in

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section 11

4.3. Indication of any immediate medical attention and special treatment needed:

No information Available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable Extinguishing Media- Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture:

Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine Oxides of phosphorus

5.3. Advice for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information:

No information Available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. For personal protection see section 8.

6.2. Environmental precautions:

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections:

For disposal see Sections 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2

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7.2. Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Components with workplace control parameters

8.2. Exposure Controls:

Appropriate Engineering Controls:

Handle in accordance with good industrial hygiene and safety practice.

Wash hands before breaks and at the end of workday.

Personal Protective Equipment:

Eye & Face Protection-

Tightly fitting safety goggles. Face-shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

- **Hand Protection –**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact: -

- Glove material : Nitrile- Rubber
- Glove thickness : 0.11 mm
- Break through time: 480 min
- Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Flash contact: -

- Glove material : Nitrile- Rubber
- Glove thickness : 0.11 mm

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Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

- **Body Protection-**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

- **Respiratory Protection-**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

- **Environmental Exposure Controls-**

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

- **Appearance:** Clear
- **Physical State:** Liquid
- **Odor:** Odorless
- **Odor Threshold:** No data available
- **pH:** < 2
- **Melting Point:** 40°C / 21°C
- **Critical Temperature:** No data available
- **Vapor Pressure:** 2 hPa @ 20°C
- **Relative Vapor Density:** 1.685 g/ml at 25°C

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- **Specific Gravity / Density:** 1.71
- **Auto-Ignition Temperature:** No data available
- **Decomposition Temperature:** 300°C
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Viscosity, dynamic:** No data available
- **Viscosity, Kinematic:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Partition Co-efficient: n-octanol/Water:** No data available
- **Ionicity (in Water):** No data available
- **Lower Explosion Limit:** No data available
- **Upper Explosion Limit:** No data available
- **Boiling Point/Range:** 158°C
- **Flash Point:** No data available
- **Water Solubility:** No data available
- **Molecular Weight:** 98.00 g/mol

9.2. Other information:

Molecular Formula: H₃PO₄

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity: -**

No data available

10.2. Chemical stability:

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions:

No data available

10.4. Conditions to avoid:

No data available

10.5. Incompatible materials:

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Strong bases, Powdered metals

10.6. Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine

Hazardous decomposition products formed under fire conditions. - Oxides of phosphorus

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral toxicity

No data available

Acute inhalation toxicity

No data available

Acute dermal toxicity

No data available

Skin irritation

No data available

Eye irritation

No data available

Sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

Reproductive toxicity

No data available

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Teratogenicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Further Information:

RTECS: Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Toxicity to fish

No data available

Toxicity to daphnia and other aquatic invertebrates

No data available

Toxicity to algae

No data available

Toxicity to bacteria

No data available

12.2 Persistence and degradability:

No data available

12.3 Bioaccumulate potential:

No data available

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12.4 Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects:

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	UN 1805		
14.2 Proper shipping name	PHOSPHORIC ACID SOLUTION		
14.3 Class	8		
14.4 Packing group	III		
14.5 Environmentally hazardous	No		
14.6 Special precautions for user	No data available		
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Relevant		

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SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

REACH - Restrictions on the manufacture, :
placing on the market and use of certain
dangerous substances, preparations and articles
(Annex XVII)

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

Training advice

Provide adequate information, instruction and training for operators.

References: Not available

Created: 06/04/2020

Disclaimer:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no

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