



SAFETY DATA SHEET

PRODUCT NAME: ORTHOPHOSPHORIC ACID

CAS Number: 7664-38-2

1. IDENTIFICATION:

Product Code : 90033, 90477, 90478, 90198, 13002,
Company Name : ADVENT CHEMBIO PRIVATE LIMITED
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2. HAZARDS IDENTIFICATION:**Hazard classification**



Corrosive to metals : Category 1

Skin corrosion : Category 1B

Serious eye damage/eye irritation : Category 1

Acute Toxicity (Oral) : Category 4

Labels elements : Labeling according to Regulation (EC) No 1272/2008 (CLP)

Hazard symbol :  

Signal word : Danger

Hazard statement : May be corrosive to metals.
: Harmful if swallowed
: Causes severe skin burns and eye damage

Precautionary statement

Prevention : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed. Ground/ bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools. Take precautionary measures against static discharge.

Response : IF exposed or concerned: Get medical advice/ attention.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.



SAFETY DATA SHEET

Version :02

PRODUCT NAME: ORTHOPHOSPHORIC ACID

CAS Number: 7664-38-2

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| Storage | : Store in well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |
| Disposal | : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |
| Other hazards which do not result in GHS classification | : None. |

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

| Ingredient | CAS Number | Percent | Hazardous |
|--------------------------|------------|-----------|-----------|
| Orthophosphoric Acid 88% | 7664-38-2 | NLT 88.0% | Yes |

4. FIRST AID MEASURES:

| | |
|---|---|
| General information | : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance. |
| Ingestion | : Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Inhalation | : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. |
| Skin contact | : Get medical attention if symptoms persist. |
| Eye contact | : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. |
| Most important symptoms/effects, acute and delayed | : Burning sensation, Cough, Sore throat, Shortness of breath, Labored breathing, Wheezing, Abdominal pain, Nausea, Vomiting, Headache, Weakness, Convulsions, Collapse, Redness, Burn, Pain, Blistering |
| Indication of immediate medical attention and special treatment needed | : Symptoms may be delayed. Treat symptomatically. |

5. FIRE FIGHTING MEASURES:

| | |
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| General information | : Flammable liquid and vapor. In case of fire and/or explosion do not breathe fumes. |
| Suitable (and unsuitable) extinguishing media | |
| Suitable extinguishing media | : Water spray, foam, dry powder or carbon dioxide. |
| Unsuitable extinguishing media | : Avoid water in straight hose stream; will scatter and spread fire. |
| Specific hazards arising from the chemical | : Can be ignited easily and burns vigorously. Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode. |
| Special protective equipment and precautions for firefighters | |
| Special firefighting | : Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting |



SAFETY DATA SHEET

Version :02

PRODUCT NAME: ORTHOPHOSPHORIC ACID

CAS Number: 7664-38-2

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| procedures | the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk. |
| Special protective equipment for fire-fighters | : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |

6. ACCIDENTAL RELEASE MEASURES:

| | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. |
| Methods and material for containment and cleaning up | : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal. |
| Notification Procedures | : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved. |
| Environmental precautions | : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. |

7. HANDLING AND STORAGE:

| | |
|--|--|
| Precautions for safe handling | : Do not handle until all safety precautions have been read and understood. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling. |
| Conditions for safe storage, including any incompatibilities | : Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids. |

8. EXPOSURE CONTROLS PERSONAL PROTECTION:**Control parameters****Occupational exposure limits****Appropriate engineering controls**

: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Individual protection measures, such as personal protective equipment**General information**

: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an



SAFETY DATA SHEET

Version :02

PRODUCT NAME: ORTHOPHOSPHORIC ACID

CAS Number: 7664-38-2

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| | acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment. |
| Eye/face protection | : Wear safety glasses with side shields (or goggles). |
| Hand protection | : Chemical resistant gloves. |
| Other | : Wear suitable protective clothing. |
| Respiratory protection | : In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge. |
| Hygiene measures | : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing. |

9. PHYSICAL AND CHEMICAL PROPERTIES:

| | |
|------------------------------|----------------------------------|
| Appearance | : Clear, colorless liquid |
| Odor | : Odourless |
| Solubility | : Miscible in water. |
| Formula | : H_3PO_4 |
| Molecular Weight | : 98.00 g/mol |
| Specific Gravity | : 1.71 g/cm ³ at 25°C |
| pH | : 2.5 - 3.0 |
| Boiling Point | : 158 °C |
| Melting point/freezing point | : -20.0°C |
| Flash Point | : No data available |
| Vapor Density (Air=1) | : No data available |
| Vapor Pressure (mm Hg) | : No data available |

10. STABILITY AND REACTIVITY:

| | |
|------------------------------------|---|
| Reactivity | : No data available |
| Chemical stability | : Stable under recommended storage conditions |
| Possibility of hazardous reactions | : No data available |
| Conditions to avoid | : No data available |
| Incompatible materials | : Strong bases, Powdered metals. |
| Hazardous decomposition products | : No data available |



SAFETY DATA SHEET

Version :02

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11. TOXICOLOGICAL INFORMATION:**Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Test data are not available for the complete mixture

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Information on likely routes of exposure

- Ingestion** : If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects)
- Inhalation** : cough, pain, choking, and breathing difficulties
- Skin contact** : causes severe burns, causes poorly healing wounds
- Eye contact** : causes burns, Causes serious eye damage, risk of blindness

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

- Oral Product** : LD 50 (Rat): >300 – 2.000 mg/kg
LD 50 (Rat): 1.530 mg/kg
- Dermal Product** : LD 50 (Rabbit): 2.740 mg/kg
- Inhalation Product** : No data available.
- Repeated dose toxicity Product** : No data available.
- Skin corrosion/irritation Product** : Causes severe skin burns and eye damage
- Serious eye damage/eye irritation Product** : Causes serious eye damage.
- Respiratory or skin sensitization Product** : Shall not be classified as a respiratory or skin sensitiser
- Germ cell mutagenicity** : Shall not be classified as germ cell mutagenic
- Carcinogenicity Product** : Shall not be classified as carcinogenic.
- Reproductive toxicity** : Shall not be classified as a reproductive toxicant.
- Specific target organ toxicity - single exposure** : Shall not be classified as a specific target organ toxicant (single exposure).
- Specific target organ toxicity - repeated exposure** : Shall not be classified as a specific target organ toxicant (repeated exposure).
- Aspiration hazard** : Shall not be classified as presenting an aspiration hazard.
- Other effects** : None known.



SAFETY DATA SHEET

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12. ECOLOGICAL INFORMATION:**Ecotoxicity****Acute hazards to the aquatic environment****Aquatic invertebrates** : EC 50 (aquatic invertebrates), 48 h): >100 mg/l**Product** : EC 50 (algae), 72 h): >100 mg/l**Chronic hazards to the aquatic environment****Aquatic invertebrates** : EC 50 (microorganisms), 3 h): >1.000 mg/l**Product****Biodegradation Product** : There are no data on the degradability of this product.**BOD/COD ratio Product** : No data available.**Bioaccumulative potential****Bioconcentration factor (BCF) Product** : No data available on bioaccumulation.**Partition coefficient n-octanol / water (log Kow)** : No data available.**Product****Mobility in soil** : No data available.**Other adverse effects** : No data available.**13. DISPOSAL CONSIDERATION:****Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.**Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.**14. TRANSPORT INFORMATION:**

| | UN No. | UN proper shipping name | Hazard Class(es) | Packaging group | Marine Pollutant |
|-------------|---------|--------------------------|------------------|-----------------|------------------|
| DOT | UN 1805 | Phosphoric Acid Solution | 8 | III | No |
| IMDG | UN 1805 | Phosphoric Acid Solution | 8 | III | No |
| IATA | UN 1805 | Phosphoric Acid Solution | 8 | III | No |

SAFETY DATA SHEET

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15. REGULATORY INFORMATION:

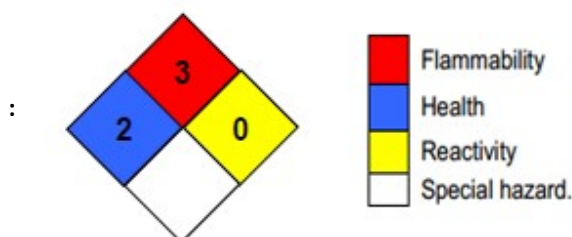
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 (REACH).

Safety, health and environmental regulations/legislation specific for the substance or mixture

No Data Available.

16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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