

## Material Safety Data Sheet

### POLYPHOSPHORIC ACID

#### Section 1 - Product Identification

Product Name : Polyphosphoric Acid  
CAS No. : 8017-16-1  
Synonym : Phospholeum; Superphosphoric acid.; Tetraphosphoric acid  
Company Identification : Tradeasia International Pte. Limited  
Address :  
133 Cecil Street # 12-03 Keck Seng Tower, Singapore  
Tel: +65-6227 6365  
Fax: +65-6225 6286  
Email: contact@chemtradeasia.com

#### Section 2 – Composition/Information on Ingredients

##### Substances

Name of substance	Polyphosphoric Acid
Identifiers	
CAS No	8017-16-1
Molecular formula	$\text{HOP(OH)(O)O(n)H}$
Molar Mass	337.93 g/mol

#### Section 3 – Hazardous Ingredients & Occupational Exposure Limits

##### Classification of the substances or mixture

##### Classification according to Regulation (EC) No 1272/2008

Skin corrosion (Category 1B)

H314 Causes severe skin burns and eye damage.


##### Classification according to EU Directives 67/548/EEC or 1999/45/EC

C Corrosive

R34 Causes burns.

##### Label Elements

##### GHS Label elements, including precautionary statements

Hazard Pictogram(s): 

Signal Word: Danger

##### Hazard Statements:

H314 - Causes severe skin burns and eye damage

##### Precautionary Statements

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

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements none

Hazards Not Otherwise Classified: None known

## Section 4 – First-Aid Measures

**General:** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Inhalation:** If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**Skin Contact:** Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately

**Ingestion:** Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately

**Notes to physician:** Treat symptomatically

## Section 5 – Employee Protection

**Suitable extinguishing media:** CO 2, dry chemical, dry sand, alcohol-resistant foam.

**Unsuitable extinguishing media:** No unsuitable extinguishing media known.

**Special hazards arising from the substance or mixture:** Thermal decomposition can lead to release of irritating gases and vapors. The product causes burn of eyes, skin and mucous membranes.

**Advice for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Further information:** No data available

## Section 6 – Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental Precautions:** Do not let product enter drains.

**Methods and Materials for Containment and Cleaning up:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## Section 7 – Handling and Storage

### Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

### Conditions for safe storage, including any incompatibilities

Place in Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place.

## Section 8 – Exposure Controls/Personal Protection

### Exposure Limits/Guidelines:

ACGIH TLV - TWA: 1 mg/m<sup>3</sup> STEL: 3 mg/m<sup>3</sup>

OSHA PEL - (Vacated) TWA: 1 mg/m<sup>3</sup> (Vacated) STEL: 3 mg/m<sup>3</sup> TWA: 1 mg/m<sup>3</sup>

NIOSH IDLH - IDLH: 1000 mg/m<sup>3</sup> TWA: 1 mg/m<sup>3</sup> STEL: 3 mg/m<sup>3</sup>

**Engineering controls:** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment**

**Eye and Face protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and Body protection:** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirators if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Control of environmental exposure:** No data available

## Section 9 – Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical State : Viscous liquid

Color : Colorless

Odour : none

Solubility in Water : Completely soluble, formation of Orthophosphoric acid.

Solubility in solvents : Soluble in Alcohols

Specific gravity : 1.852.05 depending upon the concentration

### Other data

Substance has acid reaction.

## Section 10 – Stability and Reactivity

**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical Stability:** Stable under recommended storage conditions.

**Possibility of hazardous reaction:** Incompatible products. Exposure to moist air or water

**Conditions to Avoid:** Contact with incompatibles. Moisture. Excessive heat.

**Incompatible Materials:** Water, strong bases, and most metals. This material is corrosive to common metals such as mild steel, copper, brass and bronze and may generate hydrogen gas as a result of reaction. Reacts with water to generate heat and forms phosphoric acid. This reaction is not violent.

**Hazardous Decomposition Products:** Forms flammable & explosive hydrogen through corrosion of metals at Temperatures above 200 ° C. Formation of: Polyphosphoric Acid (Dehydration) At high temperature: Thermal decomposition giving corrosive products: Oxydes of Phosphorus

**Hazardous polymerization:** Hazardous polymerization does not occur.

## Section 11 – Toxicological Information

**Acute toxicity:** May be harmful by inhalation, ingestion, or skin absorption. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin.

**Skin corrosion/irritation:** This product may be irritating to the skin, eyes and respiratory system.

**Serious eye damage/irritation:** This product may be irritating to the skin, eyes and respiratory system.

**Carcinogenicity:** Shall not be classified as carcinogenic.

**Reproductive toxicity:** No specific information is available concerning the effects of this product and its components on the human reproductive system.

**Specific target organ toxicity following single exposure:** Eye and skin burns

**Specific target organ toxicity following repeated exposure:** Bronchial irritation with chronic cough

**Aspiration hazard:** Shall not be classified as presenting an aspiration hazard.

**Information on likely routes of exposure**

**Ingestion:** May cause burns to mouth and esophagus, abdominal pain, nausea, vomiting.

**Inhalation:** May cause upper respiratory tract irritation.

**Skin contact:** Corrosive, exposure to skin may cause burns.

**Eye contact:** Corrosive, will cause serious eye damage.

**Interaction with Other Chemicals Which Enhance Toxicity:** None known.

**Additional Information:** No data available

## Section 12 – Ecological Information

**Toxicity:** Do not empty into drains. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

**Persistence and degradability:** Miscible with water Persistence is unlikely based on information available

**Bioaccumulative potential:** No data available

**Mobility in soil:** Will likely be mobile in the environment due to its water solubility.

**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.

**Other adverse effects:** Avoid release to the environment.

## Section 13 – Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## Section 14 – Transport Information

**In accordance with DOT/IMDG/IATA/ADR**

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.

UN: UN3264

Hazard Class: 8 - Corrosive

Packing Group: III - Minor Danger

**Additional Information:**

No data available

## Section 15 – Regulatory Information

### 1. US Federal regulations

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Not subject to reporting requirements of the United States SARA Section 313

## 2. International regulations

### CANADA

CANADIAN DSL/NDL INVENTORY STATUS: Components are DSL Listed, NDSL Listed and/or are exempt from listing

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product is classified per 2015 WHMIS Controlled Product Regulations.

## 3. National regulations

No data available

## 4. US State regulations

### POLYPHOSPHORIC ACID

State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Rhode Island - Right To Know List
----------------------------	---

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

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 way shall Tradeasia International Pte. Ltd. Be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Tradeasia International Pte. Ltd. has been advised of the possibility of such damages.