

# MATERIAL SAFETY DATA SHEET

## PHOSPHORIC ACID – MSDS

# **Chemical Product and Company Identification**

Product Name : Phosphoric Acid, 85%

Chemical Name : Not applicable. Chemical Formula : Not applicable.

Distributor : BASP Chemical Products Limited

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## **Composition and information of Ingredients**

COMPOSITION		
Name	CAS#	% by Weight
Phosphoric Acid	7664-38-2	85-88
Water	7732-18-5	12-15

**Toxicological Data on Ingredients:** Phosphoric Acid: ORAL (LD50): Acute: 1530

mg/kg

### **Hazardous Identification**

### **Potential Acute Health Effects:**

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, . Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive). Slightly hazardous in case of inhalation (lung sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by



coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering

## **Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. or prolonged exposure to the substance can produce target organs damage. The substance may be toxic to blood, skin, liver, eyes, bone marrow. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

### **First Aid Measures**

#### **Eve Contact:**

Check for and remove any contact lenses. Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

### **Skin Contact:**

In case of skin contact, immediately flush skin with plenty of water for 15 minutes. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used, washing clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

### **Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

#### **Inhalation:**

If inhaled by mistake, get some fresh air immediately. If the person is not able to breath, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

### **Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.



## **Ingestion:**

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantity of material is swallowed, call a physician immediately.

## Fire and Explosion Data

Flammability of the Product:Non-FlammableAuto – Ignition Temperature:Not ApplicableFlash Points:Not ApplicableFlammable Limits:Not Applicable

Fire Hazards in Presence of Various Substances: of metals

**Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of open flames and sparks, of shocks.

Fire Fighting Media and Instructions : Not Applicable

**Special Remarks on Fire Hazards:** Reacts with metals to liberate flammable hydrogen gas. Formation of flammable gases with aldehydes, cyanides, mercaptins, and sulfides.

**Special Remarks on Explosion Hazards:** Mixtures with nitromethane are explosive. (Phosphoric Acid)

## **Accidental Release Measures**

## **Small Spill:**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.

## **Large Spill:**

Corrosive liquid. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.



## **Handling and Storage**

#### **Precautions:**

Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, combustible materials, metals, alkalis. May corrode metallic surfaces. Store in a metallic or coated fiberboard drum using a strong polyethylene inner package.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

## **Exposure Control / Personal Protection**

## **Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

#### **Personal Protection:**

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Consult local authorities for acceptable exposure limits.

## **Physical and Chemical Properties**

**Physical State and appearance:** Liquid. (Syrupy liquid Viscous liquid.)

Odorless Taste: Odorless Acid.

Molecular Weight: Not available. Color: Not available.

pH (1% soln/water): Acidic.

**Boiling Point:** 158°C (316.4°F) **Melting / Freezing Point:** 21°C (69.8°F) **Critical Temperature:** Not available

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**Solubility in Water:** Easily soluble in hot water. Soluble in cold water.

Vapor Pressure (mmHg):Not applicable.Vapor Density (Air=1):Not applicable.Volatility:Not applicable.Odor Threshold:Not available.

Water / Oil Dist. Coeff.: The product is more soluble in water;  $\log(\text{oil/water}) = -1.7$ 

**Dispersion Properties:** See solubility in water, diethyl ether.

**Solubility in solvents:** Not applicable.

## **Stability and Reactivity Data**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

Conditions of Instability: Excess heat, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, reducing agents,

metals, alkalis.

Corrosive: Corrosive in presence of aluminum, of zinc, of copper. Non-corrosive in presence of

glass.

**Special Remarks on Reactivity:** Incompatible with oxidizing agents, potassium tartrate, alkali, alkaline earth carbonates and bicarbonates, acetates, and sulfides, metal nitrates

**Special Remarks on Corrosivity:** Will corrode copper, zinc, aluminum and their alloys.

Polymerization: Will not occur.

### **Toxicological Information**

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Not Available.

Chronic Effects on Humans: May cause damage to the following organs: teeth.

Other Toxic Effects on Humans: Hazardous in case of inhalation (lung irritant). Slightly

hazardous in case of skin contact (irritant, sensitizer), of ingestion.

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin:



Causes mild to moderate skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Eyes: Causes moderate to severe eye irritation

and possible injury. Ingestion: May cause gastrointestinal (digestive) tract irritation with nausea, vomiting, diarrhea. Excessive intake may cause erosion of teeth and hypocalcemia (calcium deficiency in blood). May affect behavior/central nervous system (tremor, convulsions, muscle contraction or spasticity). Inhalation: Causes moderate respiratory tract and mucous membrane irritation. Chronic Potential Health Effects: Frequent intake of citrated beverages may cause erosion of dental enamel and irritation of mucous membranes.

## **Ecological Information**

**Ecotoxicity:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Behaviour in Sewage: Not available.

## **Disposal Consideration**

### **Product Disposal:**

Untreated waste must never be discharged directly in to the sewers. Review National / Regional regulations.

#### **Packaging Disposal:**

Packing material does not get contaminated & can be disposed off by usual methods in accordance with National / Regional requirements.

### **Transport Information**

Road & Rail Transport:Not available.GGVE / GGVS:Not applicableIMDG:Not applicableAir Transport:Not applicableP Phrases:Not applicableS Phrases:Not applicable

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## **Regulatory Information**

**Health and safety information:** CLASS E: Corrosive solid.

Other Regulations: Not Applicable
Other Classifications: Not Applicable

## **Protective Equipment:**

Gloves (impervious). Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

## Other Information

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 event shall **BASP Chemical Products Limited** 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 **BASP Chemical Products Limited** has been advised of the possibility of such damages.