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## Material Safety Data Sheet

### Phosphorous acid

#### Section 1: Chemical Product and Company Identification

##### 1.1 Product identifiers

**Trade name:** Phosphorous acid

**Molecular formula:** H<sub>3</sub>O<sub>4</sub>P

**CAS Nr:** 7664-38-2

**Molecular weight:** 98

##### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : For laboratory tests and assays only, as described in the European Pharmacopoeia.

##### 1.3 Details of the supplier of the safety data sheet

**Hefei TNJ Chemical Industry Co.,Ltd.**

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**1.4 Contact Information for Emergency:** (0086) 551 65418678

#### 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

Skin corrosion (Category 1B), H314

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

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

C Corrosive R34

For the full text of the R-phrases mentioned in this Section, see Section 16.

##### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008**

Pictogram	
Signal word Danger	
Hazard statement(s)	
H290 May be corrosive to metals.	
H314 Causes severe skin burns and eye damage.	
Precautionary statement(s)	
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	
<b>According to European Directive 67/548/EEC as amended.</b>	
Hazard symbol(s)	C Corrosive
R-phrase(s)	
R34 Causes burns.	
S-phrase(s)	
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).	
<b>2.3 Other hazards - none</b>	

**Section 3: Composition/information on ingredients**

<b>3.2 Mixtures</b>			
Synonyms : Orthophosphoric acid			
Molecular Weight : 98,00 g/mol			
<b>Hazardous ingredients according to Regulation (EC) No 1272/2008</b>			
Component		Classification	Concentration
<b>Phosphoric acid</b>			
CAS-No.	7664-38-2	Met. Corr. 1; Skin Corr. 1B;	<= 100 %
EC-No.	231-633-2	H290, H314	
Index-No.	015-011-00-6		
<b>Hazardous ingredients according to Directive 1999/45/EC</b>			
Component		Classification	Concentration
<b>Phosphoric acid</b>			

CAS-No.	7664-38-2	C, R34	<= 100 %
EC-No.	231-633-2		
Index-No.	015-011-00-6		

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

## 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.

#### In case of skin contact

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 section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

no data 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 fire fighting if necessary.

### 5.4 Further information

no data 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 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.

### **6.4 Reference to other sections**

For disposal see section 13.

## **Section 7: Handling and Storage**

### **7.1 Precautions for safe handling**

Avoid inhalation of vapour or mist.

For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. 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.

### **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. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### **Skin 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### **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).

##### **Control of environmental exposure**

Do not let product enter drains.

## Section 9: Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

- a) Appearance Form: liquid, clear
- b) Odour no data available
- c) Odour Threshold no data available
- d) pH no data available
- e) Melting point/freezing point no data available
- f) Initial boiling point and boiling range no data available
- g) Flash point no data available
- h) Evaporation rate no data available
- i) Flammability (solid, gas) no data available
- j) Upper/lower flammability or explosive limits no data available
- k) Vapour pressure no data available
- l) Vapour density no data available
- m) Relative density 1,685 g/cm<sup>3</sup>
- n) Water solubility no data available
- o) Partition coefficient: noctanol/water no data available
- p) Auto-ignition temperature no data available
- q) Decomposition temperature no data available
- r) Viscosity no data available
- s) Explosive properties no data available
- t) Oxidizing properties no data available

### 9.2 Other safety information

no data available

## Section 10: Stability and Reactivity Data

### 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

Strong bases, Powdered metals

### 10.6 Hazardous decomposition products

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 toxicity

no data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/eye irritation

no data available

#### Respiratory or skin 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

#### Specific target organ toxicity - single exposure

no data available

#### Specific target organ toxicity - repeated exposure

no data available

#### Aspiration hazard

no data available

#### Additional 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.

## Section 12: Ecological Information

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 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.

#### Contaminated packaging

Dispose of as unused product.

## Section 14: Transport Information

### 14.1 UN number

ADR/RID: 1805

IMDG: 1805

IATA: 1805

### 14.2 UN proper shipping name

ADR/RID: PHOSPHORIC ACID SOLUTION

IMDG: PHOSPHORIC ACID SOLUTION

IATA: Phosphoric acid, solution

### 14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

### 14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

No data available

## Section 15: Regulatory Information

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

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

no data available

### 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.

H314 Causes severe skin burns and eye damage.

Met. Corr. Corrosive to metals

Skin Corr. Skin corrosion

### Full text of R-phrases referred to under sections 2 and 3

C Corrosive

R34 Causes burns

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to

appropriate safety precautions. It does not represent any guarantee of the properties of the product.