

**MATERIAL SAFETY**  
**DATA SHEET**

**PHOSPHORIC ACID 75%, 80%&85%**

**1. CHEMICAL PRODUCT AND COMPANY DESCRIPTION**

Trade Name: Phosphoric acid 75%, 80% & 85%		Substance Code: 2809.2011 ( FG ) /19(TG)	
Chemical Name Or Synonym: Orthophosphoric acid; white phosphoric acid		Molecular Formula: H3PO4	Molecular Weight: 98

**2. COMPOSITION/INFORMATION ON INGREDIENTS:**

Component	Cas Reg Number	Percentage
Phosphoric acid	7664-38-2	75,80,85
Water	7732-18-5	Balance

**3. HAZARDS IDENTIFICATION:**

Erosive, can produce extreme noxious vapor of phosphorous oxide while heated and resolved.

<b>Acute Eye:</b>	Corrosive. Causes tissue destruction, permanent damage to the cornea, blindness.
<b>Acute Skin:</b>	Causes irritation, burns.
<b>Acute Inhalation:</b>	Mists may cause lung irritation, shortness of breath, fluid in lungs.
<b>Acute Ingestion:</b>	Can cause nausea, diarrhea, corrosion, burns to mouth and esophagus, abdominal pain, chest pain, shortness of breath, seizures, and death.

**4. FIRST AID MEASURES:**

<b>Inhalation:</b>	Move to fresh air. Get manual breathing or get medical attention.
<b>Eyes:</b>	Wash with flowing clean water or physiological saline for 15 minutes at least. Get medical attention.
<b>Skin:</b>	Take off polluted dressing and wash completely with flowing clean water. If burned, treat as burn by acid.
<b>Ingestion:</b>	Rinse the mouth, drink milk or egg white. Get medical attention.

**5. FIRE-FIGHTING MEASURES:**

<b>Special Fire Fighting Procedures:</b>	Firefighters should wear self-contained breathing apparatus and full protective clothing. Keep unnecessary people away, isolate hazard area and deny entry. Evacuate residents who are downwind of fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.
<b>Dangerous Speciality</b>	The hydrogen will release when it contacts to the metal, which may cause explosion in the air. It will produce the virulent gas of oxidation phosphorus at a high temperature. It is corrosive.
<b>Fire-Fighting Measures:</b>	Foam, carbon dioxide, sands, and dry powder or water can be used to put out a fire.

**6. ACCIDENTAL RELEASE MEASURES:**

<b>Evacuation Procedures:</b>	Please disperse the people in the polluted area to safe one when it leaks out, and set a warning board to stop the people entering. The worker should wear self-contained breathing apparatus (full-faced mask) and protective clothing when they deal with the accident. Don't touch the leaked acid directly.
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Removing method	Please mix it with sand and calcareousness/barilla, then collect it and move it to the safe place. The another way is to add plenty of water into the mixture, adjust the mixture until its pH value is close to 7.0, then transport it to the waste water system.
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### 7. HANDLING AND STORAGE:

<b>Handling:</b>	The mechanization and automatization are preferable during the operating course. The operators must be professional trained and obey the operation regulations strictly. The operators should wear self-inhalation filtration and poison-prevented mask (semi-faced mask), chemical safe-guarded glasses, latex clothes and glove of acid-resistant and alkali-resistant.
<b>Storage:</b>	Keep it in the cool, dry and ventilative place. Keep it off the fire and hot source. Avoid the point-blank sunlight. Keep the container is sealed. Store it far from alkali, H vesicant, tinder, active metal powder.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTIVE EQUIPMENT:

Permissive concentrations	MAC of China: no standard; TWA of America: OSHA 1mg/m <sup>3</sup> .
Inspection method	Collect it with fibre membrane filter, then wash it by water, and then mesure by colorimetry (NIOSH).
Engineering control	Provide shower and eye-washing equipment.
Breath system protection	It is necessary to wear the poison-prevented mask or air-feed crash helmet. when its concentration is superscale in the air. It is necessary to wear self-inhalation filter and poison-prevented mask (semi-faced mask) in the circumstance that its vapor may exist. The self-inhalation filter respirator is suggested to wear in emergency or fleeing.
Eyes protection	Wear chemical safe-guarded glasses.
Body protection	Wear work clothes.
Hands protection	Wear rubber gloves.
Other protection	No smoking, no eating and no drinking at working site. Swab down after working. Store the clothes polluted separately and reuse it after washing. Keep good healthful habits.

### 9. PHYSICAL AND CHEMICALS PROPERTIES:

<b>Appearance:</b>	Colorless/liquid, odorless.
<b>Density:</b>	1.58 to 1.69 g/ml at 25°C (77F)
<b>Boiling Point:</b>	135 to 158°C (275 to 316F) at 760 mmHg
<b>Vapor Pressure:</b>	5.65 to 2.16 mmHg at 20°C(68F)
<b>Softening Point:</b>	42.4°C(pure)

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Flash Point:	N/A
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### 10. STABILITY AND REACTIVITY:

Chemical Stability:	This material is stable under normal handling. Hygroscopic: absorbs moisture or water from the air.
Materials /Chemicals To Be Avoided:	Fluorine; strong oxidizing agents; strong reducing agents; strong alkali; active powdered metals; sulfur trioxide phosphorus pentoxide. metals, excess heat, exposure to moist air or water.
Hazardous Polymerization	May occur
Hazardous Decomposition Products	Phosphine, oxides of phosphorus, hydrogen gas.

### 11. TOXICOLOGICAL INFORMATION:

LD50:	1530mg/kg (to the mouth of rat) ; 2740mg/kg (to the skin of rabbit)
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### 12. ECOLOGICAL INFORMATION:

Ecological Information:	No data found for product.
Chemical Fate Information:	No data found for product.
Other	Dangerous to aquatic life in high concentrations.

### 13. DISPOSAL CONSIDERATIONS:

Discharge, treatment, or disposal may be subject to national, state, or local laws.

### 14. TRANSPORT INFORMATION:

**Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT classification.**

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

#### US Department of Transportation

Hazard Class..... 8

Shipping Name:

PHOSPHORIC ACID SOLUTION

ID Number..... UN1805

Packing Group.... III

Labels..... CORROSIVE

Emergency Guide #.... 154

Sea-international maritime dangerous goods.

### 15. REGULATORY INFORMATION:

#### Inventory Status

Inventory	Status
UNITED STATES (TSCA)	Y
CANADA (DSL)	Y
EUROPE (EINECS/ELINCS)	Y
AUSTRALIA (AICS)	Y
JAPAN (MITI)	Y
SOUTH KOREA (KECL)	Y

Y = All ingredients are on the inventory.

E = All ingredients are on the inventory or exempt from listing.

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P = One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.

N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

### FEDERAL REGULATIONS

#### Inventory Issues:

All functional components of this product are listed on the TSCA Inventory.

#### SARA Title III Hazard Classes:

Fire Hazard	- NO
Reactive Hazard	- NO
Release of Pressure	- NO
Acute Health Hazard	- YES
Chronic Health Hazard	- NO

#### SARA Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

Ingredient	CERCLA/SARA RQ	SARA EHS TPQ
PHOSPHORIC ACID	5000 lbs	

### OTHER FEDERAL REGULATIONS:

#### FDA Status:

This product meets the compositional requirements of:  
21 CFR 182.1073 PHOSPHORIC ACID

### STATE REGULATIONS:

This product does not contain any components that are regulated under California Proposition 65.

### 16. OTHER INFORMATION:

Not applicable.

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This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.

\*\* END OF MSDS DOCUMENT \*\*