

**MATERIAL SAFETY DATA SHEET  
PHOSPHORIC ACID**

**Section 1 – Identification of Supplier**

**Product identifier:**

**Product Name:** Phosphoric Acid

**Shipping Name:** Phosphoric Acid

**Suppliers Details:** Chemical Initiatives (Pty) Ltd

**Address:** AECI Place, Building 24, The Woodlands, Woodlands Drive, Woodmead, 2191, South Africa

**Telephone number**

+27 11 8068700

**Emergency number**

+27 11 762 7767

**Section 2 – Hazard identification**

**Component**

Phosphoric Acid

**Label elements**



**Warning:**

Phosphoric Acid is Corrosive

**Precautions statement:**

Wear gloves, face protection and protective clothing.

**Other Hazards:**

This product is a moderate eye irritant. It may irritate the skin, respiratory system and if swallowed the gastrointestinal system.

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

**Chemical characterization: Phosphoric Acid**

CAS number : 7664-38-2

EC number : 015-011-00-6

UN number : 1805

EINECS number : 2316332

Hazardous ingredients

## Phosphoric Acid

Concentration : 65%, 75%, 80%, 85%

CAS number : 7664-38-2

Hazardous symbol : C

R phrases : 34

## Section 4 – First aid measures

### Health Statements:

#### General

#### Skin Contact

Remove soiled or soaked clothing immediately.

Skin or eye contact with Phosphoric Acid can cause severe burns.

In case of contact with skin wash off immediately with soap and water.

Cover wounds with sterile dressing.

#### Eye Contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

#### Ingestion

When swallowed, allow water to be drunk

Summon a doctor immediately

Drink aluminium oxide suspension

Treatment: treat symptomatically

## Section 5 – Fire Fighting Measures

Keep upwind of fire.

Suitable extinguishing media: Water spray, fog or alcohol foam

Emergency equipment including a self-contained breathing apparatus must be worn.

The product under full combustion will form oxides of phosphorus.

## Section 6 – Accidental Release Measures

### Methods for cleaning up/taking up

Pick up with absorbent material (e.g. Sand, sawdust).

Rinse away the rest with water.

Pick up with suitable equipment and if necessary collect in closed container.

Dispose of contaminated material as prescribed.

## Section 7 – Handling and Storage

### Handling

Advice on protection against fire and explosion

No special measures are necessary

### Storage

Requirements for storage rooms and vessels

Do not use light metal containers

### Storage stability

May be kept indefinitely if stored properly

## Section 8 - Exposure Controls and Personal Protection

### Personal Protective Equipment

**General protective measures:** Avoid contact with eyes and skin

**Hygiene measures** : Clean skin thoroughly after work; apply skin cream

**Hand protection** : Rubber gloves

**Eye protection** : Tightly fitting safety glasses

**Body protection** : Acid-proof protective clothing

<b>Section 9 – Physical and Chemical Properties</b>					
<b>Appearance:</b>	Form	: Liquid			
	Colour	: Colourless			
	Odour	: Odourless			
<b>Data relevant to safety</b>	<b>65%</b>	<b>75%</b>	<b>80%</b>	<b>85%</b>	
Melting point	-73°C	-20°C	3°C	21°C	
Boiling point	120°C	135°C	145°C	158°C	
Flash point	Not applicable				
Ph value (at 1g/l H <sub>2</sub> O at 20°C) approximately	<b>65%</b>	<b>75%</b>	<b>80%</b>	<b>85%</b>	
	1	1	1	1	
Ignition temperature	Not applicable				
Self-ignition temperature	Not applicable				
Upper explosion limit	Not applicable				
Density at 20°C	<b>65%</b>	<b>75%</b>	<b>80%</b>	<b>85%</b>	
	1.45g/cm <sup>3</sup>	1.57g/cm <sup>3</sup>	1.63g/cm <sup>3</sup>	1.68g/cm <sup>3</sup>	
Bulk density	Not applicable				
Solubility in water: miscible in all proportions at	<b>65%</b>	<b>75%</b>	<b>80%</b>	<b>85%</b>	
	20°C	20°C	20°C	20°C	
Viscosity dynamic	Not applicable				
Impact sensitivity	Not applicable				
Solubility	Soluble in cold water				

## Section 10 – Stability and Reactivity

**Thermal decomposition** : Not applicable

## Section 11 – Toxicological Information

**Acute oral toxicity** (LD50) 1530 mg/kg

Species : Rat  
Source : Sax/Lewis

**Acute dermal toxicity** (LD50) 2740 mg/kg

Species : Rabbit  
Source : Sax/Lewis

Irritant effect on skin : Corrosive  
Irritant effect on eyes : Corrosive

## Section 12 – Ecological Information

**Fish toxicity** (LC0): 100 to 1000 mg/l  
Source : Literature value

### Further ecological information


**Remarks** : Do not release into waterways untreated.  
May contribute to eutrophication in static waters, therefore should not be released into the surface waters.  
May be eliminated from water by chemical flocculation .

## Section 13 – Disposal Considerations

**Product** : For recycling contact manufacturer.  
If discharge is forbidden by water by-laws, dispose of as waste product.

**Uncleaned packaging** : Uncontaminated packaging may be taken for recycling.

**Section 14 - Transport**

	<b>Land</b>	<b>Air</b>	<b>Sea</b>
<b>UN:</b>	1805	1805	1805
<b>Proper Shipping name</b>	Phosphoric Acid	Phosphoric Acid	Phosphoric Acid
<b>Transport Hazard</b>	8	8	8
<b>Packing Group</b>	III	III	III
<b>Subsidiary Risk</b>	None	None	None
<b>Exempt quantity</b>	200 L	-	-
<b>ERG</b>	154	154	154
<b>Marine Pollutant</b>	No	No	No
<b>Special Provisions: SANS 10228: 2010 Section 242</b>	None		
<b>Transport in bulk SANS 1031:2010</b>	None		
<b>Hazchem Label</b>	Corrosive Liquid 		
Users should ensure that they comply with relevant local, state or national legislation			

## Section 15 – Regulatory Information

Hazard warning labelling compulsory

Hazard symbols : C – Corrosive  
causes burns

In case of contact with eyes, rinse immediately with plenty of  
Water and seek medical advice.

In case of accident or if you feel unwell, seek medical advice  
immediately (show the label where possible).

½ : Keep locked up and out of reach of children

## Section 16 – Other Information

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 of a particular application.