

# Safety Data Sheet

## Phosphoric Acid, 15M (85%)

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Phosphoric Acid, 15M (85%)  
**Recommended Use:** Science education applications  
**Synonyms:** ortho-Phosphoric Acid  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



Fatal if swallowed or in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Toxic to aquatic life.

**GHS Classification:**

Acute Toxicity - Dermal Category 1, Acute Toxicity - Oral Category 1, Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Hazardous to the aquatic environment - Acute Category 2

### Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Phosphoric Acid		85
Water		15

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin Contact:** IF ON SKIN: Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
**Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use dry chemical, CO2 or appropriate foam.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Flammable Hydrogen gas may be produced over long periods of exposure to Aluminum, Tin, Lead, and Zinc. Fire or excessive heat may produce hazardous decomposition products.

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**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

## Section 6 Spill or Leak Procedures

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## Section 7 Handling and Storage

**Handling:** Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes. Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution. Do not ingest or take internally.

**Storage:** Store locked up. Store in a secure area suitable for corrosives. Keep locked up and out of the reach of children.

## Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Phosphoric Acid	1 mg/m <sup>3</sup> TWA	3 mg/m <sup>3</sup> STEL	1 mg/m <sup>3</sup> TWA	N/A

### Control Parameters

**Engineering Measures:** No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** No respiratory protection required under normal conditions of use.

**Eye Protection:** Wear chemical splash goggles when handling this product. Have an eye wash station available.

**Skin Protection:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

**Gloves:** No information available

## Section 9 Physical Data

<b>Formula:</b> H <sub>3</sub> PO <sub>4</sub>	<b>Vapor Pressure:</b> 5.7 mm Hg @ 20°C
<b>Molecular Weight:</b> 98.00	<b>Evaporation Rate (BuAc=1):</b> N/A
<b>Appearance:</b> Colorless	<b>Vapor Density (Air=1):</b> N/A
<b>Odor:</b> None	<b>Specific Gravity:</b> 1.58
<b>Odor Threshold:</b> No data available	<b>Solubility in Water:</b> Soluble
<b>pH:</b> No data available	<b>Log Pow (calculated):</b> No data available
<b>Melting Point:</b> No data available	<b>Autoignition Temperature:</b> No data available
<b>Boiling Point:</b> 100 C	<b>Decomposition Temperature:</b> No data available
<b>Flash Point:</b> No data available	<b>Viscosity:</b> No data available
<b>Flammable Limits in Air:</b> N/A	<b>Percent Volatile by Volume:</b> N/A

## Section 10 Reactivity Data

**Reactivity:** No data available

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** None known.

**Incompatible Materials:** Water-reactive materials

**Hazardous Polymerization:** Will not occur

## Section 11 Toxicity Data

**Routes of Entry:** Inhalation, ingestion, eye or skin contact.

**Symptoms (Acute):** Respiratory disorders

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**Delayed Effects:** No data available

**Acute Toxicity:**

<b>Chemical Name</b> Phosphoric Acid	<b>CAS Number</b>	<b>Oral LD50</b> Oral LD50 Rat 1.25 GM/KG Oral LD50 Mouse 1.25 GM/KG	<b>Dermal LD50</b>	<b>Inhalation LC50</b> INHALATION LC50 Rat 25.5 MG/M3 INHALATION LC50 Mouse 25.5 MG/M3
Water		Oral LD50 Rat 90000 mg/kg		

**Carcinogenicity:**

<b>Chemical Name</b> No data available	<b>CAS Number</b>	<b>IARC</b> Not listed	<b>NTP</b> Not listed	<b>OSHA</b> Not listed
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**Chronic Effects:**

<b>Mutagenicity:</b>	No evidence of a mutagenic effect.
<b>Teratogenicity:</b>	No evidence of a teratogenic effect (birth defect).
<b>Sensitization:</b>	No evidence of a sensitization effect.
<b>Reproductive:</b>	No evidence of negative reproductive effects.
<b>Target Organ Effects:</b>	
<b>Acute:</b>	See Section 2
<b>Chronic:</b>	Not listed as a carcinogen by IARC, NTP or OSHA.

## Section 12 Ecological Data

<b>Overview:</b>	This material is not expected to be harmful to the ecology.
<b>Mobility:</b>	No data
<b>Persistence:</b>	No data
<b>Bioaccumulation:</b>	No data
<b>Degradability:</b>	No data
<b>Other Adverse Effects:</b>	No data

<b>Chemical Name</b> Phosphoric Acid	<b>CAS Number</b>	<b>Eco Toxicity</b> 96 HR LC50 GAMBUSIA AFFINIS 3 - 3.5 MG/L 12 HR EC50 DAPHNIA MAGNA 4.6 MG/L
Water		No data available

## Section 13 Disposal Information

<b>Disposal Methods:</b>	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
<b>Waste Disposal Code(s):</b>	Not Determined

## Section 14 Transport Information

<b>Ground - DOT Proper Shipping Name:</b> UN1805 PHOSPHORIC ACID, SOLUTION Class 8 P.G. III	<b>Air - IATA Proper Shipping Name:</b> Not regulated for air transport by IATA.
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## Section 15 Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Phosphoric Acid		No	5000 lb RQ	5000 lb final RQ; 2270 kg final RQ	No	No

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## Section 16

## Additional Information

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Replaces: 09/09/2015

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health