

**SECTION 1: Identification**

<b>Product Name</b>	Phosphoric Acid, ACS Reagent, 85% w/w (Orthophosphoric Acid)		
<b>Other Identifiers</b>	Orthophosphoric Acid; o-Phosphoric Acid; 84410-52		
<b>Recommended Uses</b>	General Laboratory Reagent/Chemical.		
<b>Uses Advised Against</b>	Not intended for drug, food or household use.		
<b>Address</b>	SPEX CertiPrep, LLC 203 Norcross Ave. Metuchen, NJ 08840 USA	<b>24-Hour Emergency Telephone</b>	
<b>Telephone</b>	1.732.549.7144	CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1 + 730-527-3887	
<b>Website</b>	www.spex.com		

**SECTION 2: Hazard(s) Identification**

- Skin corrosion/irritation (Category 1)
- Serious eye damage/eye irritation (Category 1)
- Corrosive to metals (Category 1)

**Hazards not otherwise classified or covered by GHS**

None identified.

**Signal Word**

DANGER

**Hazard Statements**

Causes severe skin burns and serious eye damage. May be corrosive to metals.

**Precautionary Statements**

Keep only in original packaging. Do not breathe mist, vapors or spray. Wash areas of contact/exposure thoroughly after handling. Wear protective gloves and clothing and eye protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Get medical help. In all cases of contact: Get emergency medical help immediately. Absorb spillage to prevent material damage. Store locked up. Store in corrosive resistant container with a resistant inner liner. Dispose of contents/container in accordance with local, state, federal and international regulations.



**SECTION 3: Composition / Information on Ingredients**

Component Name	Component Number CAS	Component Number EC	Component Weight %
o-Phosphoric Acid	7664-38-2	231-633-2	85
Water	7732-18-5	231-791-2	15

## SECTION 4: First-Aid Measures

<b>General Advice</b>	Show this SDS to attending physician if medical treatment is needed.
<b>Skin Contact</b>	Immediately wash affected area with soap and water while removing contaminated clothing . Seek medical attention if there is any evidence of skin damage or persistent irritation.
<b>Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Seek immediate medical attention.
<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. If breathing is difficult or labored , seek medical attention.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or physician.
<b>Symptoms/effects</b>	The most important known symptoms/effects are described in Section 2 of this Safety Data Sheet.
<b>Treatment</b>	Treat symptomatically.

## SECTION 5: Fire-Fighting Measures

<b>Extinguishing Media</b>	Substance is not flammable, use agent most appropriate to extinguish surrounding fire (water, carbon dioxide, dry chemical, sand/earth, foam).
<b>Specific Hazards</b>	Thermal decomposition may produce toxic or irritating fumes.
<b>Actions for Firefighters</b>	Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## SECTION 6: Accidental Release Measures

<b>Precautions and Procedures</b>	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate unprotected personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>Environmental Precautions</b>	As with any chemical, avoid release to the environment for the responsible stewardship of our planet.
<b>Containment and Clean Up</b>	Contain and absorb with inert absorbent material. Wear respiratory protection, gloves, eye protection and protective clothing. Sweep up or vacuum up spillage and collect in suitable lidded container for disposal.

## Section 7: Handling and Storage

<b>Handling</b>	Follow good hygiene procedures when handling chemical materials. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use personal items when handling this substance. Wear gloves, protective clothing and eye protection when handling this substance.
<b>Storage</b>	Keep containers tightly closed in a cool, dry and well-ventilated place. Protect from freezing and physical damage. Store separately from incompatible materials. Store locked up.

## Section 8: Exposure Controls / Personal Protection

<b>Engineering Controls</b>	As part of safe chemical handling, emergency eye wash fountains and safety showers should be available in handling areas. Provide sufficient ventilation measures to keep the airborne concentration below the applicable workplace exposure limits.
<b>Exposure Limits</b>	Phosphoric acid PEL-TWA 1 mg/m <sup>3</sup> US-OSHA
<b>Exposure Limits</b>	Phosphoric acid REL-TWA 1 mg/m <sup>3</sup> US-NIOSH
<b>Exposure Limits</b>	Phosphoric acid TLV-TWA 1 mg/m <sup>3</sup> US-ACGIH
<b>Exposure Limits</b>	Phosphoric Acid REL-STEL 3 mg/m <sup>3</sup> US-NIOSH
<b>Exposure Limits</b>	Phosphoric Acid TLV-STEL 3 mg/m <sup>3</sup> US-ACGIH
<b>Eye Protection</b>	Wear safety glasses with side shields or safety goggles. Wear face shield if there is risk of splashes.
<b>Skin Protection</b>	Wear chemical resistant gloves and protective clothing.
<b>Respiratory Protection</b>	Where exposure limits are exceeded and cannot be adequately controlled by other engineering means (such as a chemical fume hood), wear respiratory protection.

## Section 9: Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Appearance/Color</b>	Colorless
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Not applicable.
<b>Melting/Freezing Point</b>	21.1°C
<b>Boiling Point/Range</b>	158°C
<b>Flammability</b>	Not flammable
<b>Flammable/Explosive Limits</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Auto-Ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	213°C
<b>pH</b>	0
<b>Viscosity</b>	Data not available

<b>Solubility (in water)</b>	Miscible
<b>Partition Coefficient (n-octanol/water)</b>	-1.436
<b>Relative Density</b>	1.69
<b>Vapor Pressure</b>	2.16 mm Hg at 20°C
<b>Vapor Density</b>	3.4
<b>Evaporation Rate</b>	Data not available
<b>Particle Characteristics</b>	Not applicable.

### Section 10: Stability and Reactivity

<b>Reactivity</b>	Contact with metals can release hydrogen gas (flammable).
<b>Chemical Stability</b>	Stable under normal conditions of handling and storage.
<b>Hazardous Reactions</b>	Based on available data, no reaction hazards have been identified that would occur during normal handling and storage.
<b>Conditions to Avoid</b>	Avoid contact with incompatible materials.
<b>Incompatible Materials</b>	Strong alkalies, bleach, ammonia, nitromethane.
<b>Hazardous Decomposition</b>	Thermal decomposition can produce phosphorus oxides.

### Section 11: Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 (rat) 1250 mg/kg
<b>Acute Toxicity - Dermal</b>	LD50 (rabbit) 2740 mg/kg
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) >850 mg/m <sup>3</sup> /1H
<b>Skin Corrosion/Irritation</b>	Causes severe skin burns.
<b>Eye Damage/Irritation</b>	This material can cause serious eye damage.
<b>Respiratory Sensitization</b>	Not expected to cause respiratory sensitization.
<b>Skin Sensitization</b>	Not expected to cause skin sensitization.
<b>Germ Cell Mutagenicity</b>	Based on available data, this substance does not meet the criteria set forth for classification as causing germ cell mutagenicity.
<b>Carcinogenicity</b>	This material has not been identified as a carcinogen by IARC or NTP.
<b>Reproductive Toxicity</b>	Based on available data, this substance does not meet the criteria set forth for classification as a reproductive toxin.
<b>STOT Single Exposure</b>	None known.
<b>STOT Repeated Exposure</b>	None known.
<b>Aspiration Hazard</b>	This substance is not considered to be an aspiration hazard.
<b>Other Information</b>	No additional information available.

## Section 12: Ecological Information

<b>Toxicity Values</b>	Does not meet the criteria of ecotoxin.
<b>Persistence/Biodegradability</b>	The methods for determining biological degradability do not apply to inorganic substances.
<b>Bioaccumulation Potential</b>	Data is not available for this substance that does not meet the criteria of ecotoxin.
<b>Mobility in Soil</b>	Data is not available for this substance that does not meet the criteria of ecotoxin.
<b>Other Adverse Effects</b>	None known.

## Section 13: Disposal Considerations

Discharge, treatment, or disposal may be subject to national, state, regional or local laws. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Since emptied containers retain product residue, follow label warnings even after container is emptied. Dispose in accordance with national, state, regional and local regulations.

## Section 14: Transport Information

<b>UN Number</b>	UN1805
<b>Proper Shipping Name, Hazard Class</b>	PHOSPHORIC ACID SOLUTION, 8
<b>Packing Group</b>	III
<b>Marine Pollutant</b>	Not classified as a marine pollutant.

## Section 15: Regulatory Information

<b>USA TSCA</b>	On or in compliance with the inventory.
<b>USA SARA 302/304</b>	Phosphoric Acid, TPQ 4540 kg (10,000 lbs) RQ 2270 kg (5000 lbs)
<b>USA SARA 311/312</b>	Phosphoric Acid
<b>USA SARA 313 (TRI)</b>	Does not apply.
<b>Canada DSL/NDSL</b>	On or in compliance with DSL.
<b>California Proposition 65</b>	This product contains no substances on the list.

## Section 16: Other Information

<b>Acronyms</b>	ACGIH	American Conference of Governmental Industrial Hygienists (USA)
	ATE	Acute Toxicity Estimate (calculated toxicity value)
	BCF	Bioconcentration Factor
	CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (USA)
	DOT	Department of Transportation (USA)
	DSL	Domestic Substances List (Canada)
	EHS	Extremely Hazardous Substance
	EPA	Environmental Protection Agency (United States)
	GHS	Globally Harmonized System
	IARC	International Agency for Research on Cancer
	IDLH	Immediately Dangerous to Life and Health
	NTP	National Toxicology Program (USA)
	OSHA	Occupational Safety and Health Administration (USA)
	PEL	Permissible Exposure Limit
	PNOR	Particulates Not Otherwise Classified
	PPE	Personal Protective Equipment
	ppb	Parts per billion
	ppm	Parts per million
	RQ	Reportable Quantity
	SARA	Superfund Amendments and Reauthorization Act (USA)
	TLV	Threshold Limit Value
	TPQ	Threshold Planning Quantity
	TRI	Toxic Release Inventory (USA)
	TSCA	Toxic Substances Control Act (USA)
	TWA	Time Weighted Average
	UN	United Nations

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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing SDS:** product safety department

**Contact:** SPEX CertiPrep, LLC. 1-732-549-7144