

Safety Data Sheet

Phosphate Acid Reagent

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Phosphate Acid Reagent
Recommended Use: Science education applications
Synonyms: N/A
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



Causes severe skin burns and eye damage. Causes serious eye damage. Harmful if inhaled. May cause cancer.

GHS Classification:

Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Carcinogenicity Category 1A, Acute Toxicity - Inhalation Dust / Mist Category 4

Other Safety Precautions: IF exposed or concerned: Get medical advice/attention.

Acute Toxicity Dermal Contains 13.1 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	86.9
Sulfuric Acid, Concentrated 18M	7664-93-9	12
Ammonium Molybdate, Tetrahydrate	12054-85-2	1
Antimony Potassium Tartrate, Trihydrate	28300-74-5	0.1

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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Ingestion: 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: N/A
Hazardous Combustion Products: Sulfur Oxides, Hydrogen Gas,

Safety Data Sheet

Section 6

Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away.

Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Contain the discharged material. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Do not allow the spilled product to enter public drainage system or open waterways.

Section 7

Handling and Storage

Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution.

Storage: Store locked up. Keep container tightly closed in a cool, well-ventilated place.

Storage Code: White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

Section 8

Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Sulfuric Acid, Concentrated 18M	0.2 mg/m ³ TWA (thoracic fraction)	N/A	1 mg/m ³ TWA	N/A
Ammonium Molybdate, Tetrahydrate	0.5 mg/m ³ TWA (respirable fraction, as Mo)	N/A	5 mg/m ³ TWA (as Mo)	N/A
Antimony Potassium Tartrate, Trihydrate	0.5 mg/m ³ TWA (as Sb)	N/A	0.5 mg/m ³ TWA (as Sb)	N/A

Control Parameters

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

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

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

Respirator Type(s): NIOSH approved air purifying respirator with acid gas cartridge and dust/mist filter

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: Nitrile - Extra Thick (8 mm)

Section 9

Physical Data

Formula: N/A

Molecular Weight: N/A

Appearance: Colorless Colorless, Oily Liquid

Odor: Strong Pungent

Odor Threshold: No data available

Vapor Pressure: N/A

Evaporation Rate (BuAc=1): N/A

Vapor Density (Air=1): N/A

Specific Gravity: N/A

Solubility in Water: Soluble

Safety Data Sheet

pH: No data available
Melting Point: 10 C
Boiling Point: 100 C
Flash Point: No data available
Flammable Limits in Air: N/A N/A

Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: N/A

Section 10

Reactivity Data

Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Contact with water
Incompatible Materials: Water-reactive materials, Water, Organic Compounds, Strong reducing agents, Acetaldehydes, Amines
Hazardous Decomposition Products: Hydrogen Gas,, Sulfur Oxides
Hazardous Polymerization: Will not occur

Section 11

Toxicity Data

Routes of Entry: Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): N/A
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Sulfuric Acid, Concentrated 18M	7664-93-9	Oral LD50 Rat 2140 mg/kg		INHALATION LC50 Mouse 320 MG/M3 INHALATION LC50 Rat 510 MG/M3 INHALATION LC50 GUINEA PIG 18 MG/M3
Antimony Potassium Tartrate, Trihydrate	28300-74-5	Oral LD50 Rat 115 mg/kg		

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Sulfuric Acid, Concentrated 18M	7664-93-9	Not listed	Not listed	Listed

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Mutation data cited., Tumorigenic data cited.

Section 12

Ecological Data

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. Keep out of waterways.
Mobility: No data
Persistence: Biodegradation, adsorption to sediment, and bioconcentration to aquatic organisms should not be significant.
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available

Safety Data Sheet

Sulfuric Acid, Concentrated 18M

7664-93-9

96 HR LC50 BRACHYDANIO RERIO > 500 MG/L [STATIC]
24 HR EC50 DAPHNIA MAGNA 29 MG/L

Section 13

Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Waste Disposal Code(s): Not Determined

Section 14

Transport Information

Ground - DOT Proper Shipping Name:
UN2796, Sulfuric acid, 8, II

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

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
Sulfuric Acid, Concentrated 18M	7664-93-9	Sulfuric acid	1000 lb RQ	1000 lb final RQ; 454 kg final RQ	1000 lb TPQ	No
Antimony Potassium Tartrate, Trihydrate	28300-74-5	No	No	100 lb final RQ; 45.4 kg final RQ	No	No

Section 16

Additional Information

Revised: 09/09/2015

Replaces: 09/03/2014

Printed: 10-29-2015

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