

Phosphoric Acid, 1.0N

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

And According To The Hazardous Products Regulation (February 11, 2015).

Date of Issue: 04/28/2022

Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Phosphoric Acid, 1.0N

Product Code: PH1210SS

Product Code (SKU): PH1210SS

1.2. Intended Use of the Product

Use Of The Substance/Mixture: Laboratory chemicals.

1.3. Name, Address, and Telephone of the Responsible Party

Company

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331 USA

Tel +1 (717)632-1291

Toll-Free: (866)632-1291

tech@aquaphoenixsci.com

1.4. Emergency Telephone Number

Emergency Number : ChemTel LLC

(800)255-3924 (North America)

+1 (813)248-0585 (International)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Met. Corr. 1 H290

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA) :



Signal Word (GHS-US/CA) :

Warning

Hazard Statements (GHS-US/CA) :

H290 - May be corrosive to metals.

Precautionary Statements (GHS-US/CA) :

P234 - Keep only in original container.

P390 - Absorb spillage to prevent material-damage.

P406 - Store in corrosive resistant container with a resistant inner liner.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Water	AQUA / water	(CAS-No.) 7732-18-5	97	Not classified
Phosphoric acid	Orthophosphoric acid / Phosphoric acid solution / PHOSPHORIC ACID / Phosphoric acid, solution / Phosphoric acid, liquid / Hydrophosphoric acid / Phosphoric acid ...% / ortho-Phosphoric acid / o-Phosphoric acid / Orthophosphoric acid ... % / Phosphoric acid ... % / phosphoric acid	(CAS-No.) 7664-38-2	3	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402

Full text of H-statements: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Not expected to present a significant hazard under anticipated conditions of normal use.

Inhalation: Prolonged exposure may cause irritation.

Skin Contact: Prolonged exposure may cause skin irritation.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Solutions do not burn. Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Contact with metallic substances may release flammable hydrogen gas.

Reactivity: May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: The substance itself is non-combustible and does not burn. However, when heated to decomposition it emits phosphorous oxides and corrosive and/or toxic fumes.

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5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray). Do not allow contact with metals.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Cautiously neutralize spilled liquid with lime. Absorb spillage to prevent material damage. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a large spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May be corrosive to metals. May release hydrogen gas on prolonged contact with certain metals.

Precautions for Safe Handling: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool place. Store in corrosive resistant container with a resistant inner liner. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Keep container closed when not in use.

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Metals.

7.3. Specific End Use(s)

Laboratory chemicals.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

Phosphoric acid (7664-38-2)		
USA ACGIH	ACGIH OEL TWA	1 mg/m ³
USA ACGIH	ACGIH OEL STEL	3 mg/m ³
USA OSHA	OSHA PEL (TWA) [1]	1 mg/m ³
USA NIOSH	NIOSH REL (TWA)	1 mg/m ³
USA NIOSH	NIOSH REL (STEL)	3 mg/m ³
USA IDLH	IDLH	1000 mg/m ³
Alberta	OEL STEL	3 mg/m ³
Alberta	OEL TWA	1 mg/m ³

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British Columbia	OEL STEL	3 mg/m ³
British Columbia	OEL TWA	1 mg/m ³
Manitoba	OEL STEL	3 mg/m ³
Manitoba	OEL TWA	1 mg/m ³
New Brunswick	OEL STEL	3 mg/m ³
New Brunswick	OEL TWA	1 mg/m ³
Newfoundland & Labrador	OEL STEL	3 mg/m ³
Newfoundland & Labrador	OEL TWA	1 mg/m ³
Nova Scotia	OEL STEL	3 mg/m ³
Nova Scotia	OEL TWA	1 mg/m ³
Nunavut	OEL STEL	3 mg/m ³
Nunavut	OEL TWA	1 mg/m ³
Northwest Territories	OEL STEL	3 mg/m ³
Northwest Territories	OEL TWA	1 mg/m ³
Ontario	OEL STEL	3 mg/m ³
Ontario	OEL TWA	1 mg/m ³
Prince Edward Island	OEL STEL	3 mg/m ³
Prince Edward Island	OEL TWA	1 mg/m ³
Québec	VECD (OEL STEL)	3 mg/m ³
Québec	VEMP (OEL TWA)	1 mg/m ³
Saskatchewan	OEL STEL	3 mg/m ³
Saskatchewan	OEL TWA	1 mg/m ³
Yukon	OEL STEL	3 mg/m ³
Yukon	OEL TWA	1 mg/m ³

8.2. Exposure Controls

Appropriate Engineering Controls: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles safety glasses with side-shields.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Goggles or safety glasses with side-shields.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: No data available
Odor	: No data available
Odor Threshold	: No data available
pH	: 1-2 (Estimated range)
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available

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Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Specific Gravity	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers. Metals.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Corrosive and/or toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

No additional information available

Skin Corrosion/Irritation: Not classified.

Eye Damage/Irritation: Not classified.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Phosphoric acid (7664-38-2)	
LD50 Oral Rat	2600 mg/kg (1.7 ml/kg of 75% solution)
LD50 Dermal Rabbit	2740 mg/kg
LC50 Inhalation Rat	> 850 mg/m ³ (Exposure time: 1 h)

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

Phosphoric acid (7664-38-2)	
LC50 Fish 1	75.1 mg/l

12.2. Persistence and Degradability

Phosphoric Acid, 1.0N	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Phosphoric Acid, 1.0N	
Bioaccumulative Potential	Not established.

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Treatment Methods: Can be landfilled or incinerated, when in compliance with local regulations.

Sewage Disposal Recommendations: Do not dispose of waste into sewer.

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : PHOSPHORIC ACID SOLUTION
Hazard Class : 8
Identification Number : UN1805
Label Codes : 8
Packing Group : III
ERG Number : 154
Special Provisions : In accordance with 49 CFR §173.154(d), when transported by motor vehicle or rail car in a packaging constructed of materials that will not react dangerously with or be degraded by the corrosive material, this product is exempt from the packaging and labeling requirements otherwise delineated in 49 CFR §173.154.



14.2. In Accordance with IMDG

Proper Shipping Name : PHOSPHORIC ACID SOLUTION
Hazard Class : 8
Identification Number : UN1805
Label Codes : 8
Packing Group : III
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3. In Accordance with IATA

Proper Shipping Name : PHOSPHORIC ACID, SOLUTION
Hazard Class : 8
Identification Number : UN1805
Label Codes : 8
Packing Group : III



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ERG Code (IATA) : 8L
14.4. In Accordance with TDG
Proper Shipping Name : PHOSPHORIC ACID, SOLUTION
Hazard Class : 8
Identification Number : UN1805
Label Codes : 8
Packing Group : III



SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Phosphoric Acid, 1.0N	
SARA Section 311/312 Hazard Classes	Physical hazard - Corrosive to metals
Phosphoric acid (7664-38-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
CERCLA RQ	5000 lb
Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	

15.2. US State Regulations

Phosphoric acid (7664-38-2)
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

15.3. Canadian Regulations

Phosphoric acid (7664-38-2)
Listed on the Canadian DSL (Domestic Substances List)
Water (7732-18-5)
Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 04/28/2022
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1B	Skin corrosion/irritation Category 1B
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H402	Harmful to aquatic life

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.