



SAFETY DATA SHEET

Version 1

1. Identification of the Substance / Preparation and of the Company / Undertaking

Product Name: Phosphoric Acid 75% FCC
UN/ID No UN-1805
Synonyms: Ortho-phosphoric acid; White Phosphoric acid
Formula: H₃PO₄ in H₂O
Molecular Weight: 98.00

Company Name:
 Hawkins, Inc., 2381 Rosegate, Roseville, MN 55113 (612-331-6910)

Emergency Telephone:
 CHEMTREC (US): 1-800-424-9300

2. Hazards Identification

GHS - Classification

Skin corrosion/irritation	Category 1 Category 1B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Chronic aquatic toxicity	Category 2



Signal Word: Danger

Hazard Statements:

- Causes severe skin burns and eye damage
- Toxic to aquatic life with long lasting effects
- May cause respiratory irritation. May cause drowsiness or dizziness

Physical Hazards

Corrosive to metals	Category 1
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- May be corrosive to metals



Precautionary Statements:

- Do not breathe dust/fume/gas/mist/vapors/spray
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Use only outdoors or in a well-ventilated area
- Avoid release to the environment
- Wear protective gloves/protective clothing/eye protection/face protection
- Store in a well-ventilated place. Keep container tightly closed
- Immediately call a POISON CENTER or doctor/physician
- Call a POISON CENTER or doctor if you feel unwell
- Immerse in cool water/wrap in wet bandages
- Wash contaminated clothing before reuse
- Absorb spillage to prevent material damage
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Store locked up
- Store in corrosive resistant aluminum container with a resistant inliner
- Dispose of contents/ container to an approved waste disposal plant
- Dispose of contents/container to industrial incineration plant
- Collect spillage

3. Composition / Information on Ingredients

Hazardous

Chemical Name	CAS No	Weight-%	EC No
Phosphoric acid	7664-38-2	75	Present

Non-Hazardous

Chemical Name	CAS No	Weight-%	EC No
Water	7732-18-5	25	231-791-2

4. First Aid Measures

- General Advice:** Immediate medical attention is required.
- Eye Contact:** Keep eye wide open while rinsing. Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not rub affected area.
- Skin Contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.
- Inhalation:** Move to fresh air. Call a physician or poison control center immediately. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
- Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Immediate medical attention is required. Call a physician or poison control center immediately. Clean mouth with water and drink afterwards plenty of water. Remove from exposure, lie down.
- Note to Physicians:** Treat symptomatically. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.
- Self-protection of the First Aider:** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

5. Fire-fighting Measures

Flammable Properties:

Not considered to be a fire hazard, Contact with metals may evolve flammable hydrogen gas

Explosive Properties:

Not considered to be an explosion hazard

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment, Water spray may be used to keep fire exposed containers cool, If water is used, use in abundance to control heat and acid build-up

Unsuitable Extinguishing Media:

No information available

Specific Hazards Arising from the Chemical:

The product causes burns of eyes, skin and mucous membranes, Thermal decomposition can lead to release of irritating and toxic gases and vapors, In the event of fire and/or explosion do not breathe fumes

Protective Equipment and Precautions for Firefighters:

In the event of a fire, wear full protective clothing and MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus with full facepiece operated in the pressure-demand or other positive pressure mode

6. Accidental Release Measures

Personal Precautions:

Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Should not be released into the environment.

Methods for Cleaning Up:

Dam up. Soak up with inert absorbent material. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Prevent product from entering drains. Take up mechanically, placing in appropriate containers for disposal. Dike far ahead of liquid spill for later disposal.

Other Information:

Not applicable.

7. Handling and Storage

Advice on Safe Handling:

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Use only with adequate ventilation.

Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials:

Strong acids and bases; Oxidizing agents; Liberates explosive hydrogen gas when reacting with chlorides and stainless steel. Can react violently with sodium tetrahydroborate. Exothermic reactions with aldehydes, amines, amides, alcohols and glycols, azo-compounds, carbamates, esters, caustics, phenols and cresols, ketones, organophosphates, epoxides, explosives, combustible materials, unsaturated halides, and organic peroxides. Phosphoric acid forms flammable gases with sulfides, mercaptans, cyanides and aldehydes. It also forms toxic fumes with cyanides, sulfide, fluorides, organic peroxides, and halogenated organics. Mixtures with nitromethane are explosive

8. Exposure Controls / Personal Protection

Exposure Guidelines

901571 Phosphoric Acid 75% FCC

Chemical Name	ACGIH TLV	OSHA PEL	British RFA			
Phosphoric acid	STEL: 3 mg/m ³ TWA: 1 mg/m ³	1 mg/m ³ TWA 3 mg/m ³ STEL	TWA: 1 mg/m ³ STEL: 3 mg/m ³			
Chemical Name	European Union	China	Japan	Korea	Australia	Canada
Phosphoric acid	TWA 1 mg/m ³ STEL 2 mg/m ³	TWA: 1 mg/m ³ STEL: 3 mg/m ³	TWA: 1 mg/m ³	STEL: 3 mg/m ³ TWA: 1 mg/m ³	1 mg/m ³ 3 mg/m ³ STEL	TWA: 1 mg/m ³

Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Engineering Controls: Ensure adequate ventilation, especially in confined areas

Personal protective equipment (PPE)

- Eye/Face Protection:** Tight sealing safety goggles. Face protection shield.
- Body Protection:** Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate. Rubber boots. Suitable protective clothing. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Gloves made of plastic or rubber.

General Hygiene Considerations:
Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid
Appearance: Syrupy liquid
Color: Colorless
Odor: Odorless
Odor Threshold: No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH:	1.5	0.1 N aqueous solution
"Salt Out" Point (°F):		No information available
Melting Point/Freezing Point:	21 °F / 70 °C	
Boiling Point/Boiling Range:	158 °C / 316 °C	
Flash Point:		No information available
Evaporation Rate (BuAc=1):		No information available
Flammability (solid, gas):		No information available
Flammability Limits in Air:		No information available
Upper Flammability Limit:		
Lower Flammability Limit:		
Vapor Pressure (mm Hg) :	0.03	
Vapor density (Air =1)	3.4	
Specific Gravity (H ₂ O=1):	1.57	
Specific Gravity (2nd value):		
Water Solubility:	Miscible in all proportions in water	
Solubility(ies):		No information available
Partition Coefficient (n-octanol/water)		No information available
Autoignition Temperature:		No information available
Decomposition Temperature:		No information available
Kinematic Viscosity:		No information available
Dynamic Viscosity:		No information available
Oxidizing Properties:	No information available	
Explosive Properties:	Not considered to be an explosion hazard	

9.2. Other information

Softening Point: No information available
Molecular Weight: 98.00
VOC Content(%): No information available
Density: No information available
Bulk Density: No information available

10. Stability and Reactivity

Stability:	Stable under normal conditions of use and storage; Substance can supercool without crystallizing
Conditions to Avoid:	Incompatibles; Exposure to air or moisture over prolonged periods
Incompatible Materials:	Strong acids and bases, Oxidizing agents, Liberates explosive hydrogen gas when reacting with chlorides and stainless steel. Can react violently with sodium tetrahydroborate. Exothermic reactions with aldehydes, amines, amides, alcohols and glycols, azo-compounds, carbamates, esters, caustics, phenols and cresols, ketones, organophosphates, epoxides, explosives, combustible materials, unsaturated halides, and organic peroxides. Phosphoric acid forms flammable gases with sulfides, mercaptans, cyanides and aldehydes. It also forms toxic fumes with cyanides, sulfide, fluorides, organic peroxides, and halogenated organics. Mixtures with nitromethane are explosive
Hazardous Decomposition Products:	Thermal decomposition can lead to release of irritating and toxic gases and vapors; Phosphorus oxides
Possibility of Hazardous Reactions:	None under normal processing

11. Toxicological Information**Product Information**

Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	LC ₅₀ (Lethal Concentration)
Phosphoric acid	1530 mg/kg (Rat)	2730 mg/kg (Rabbit)	850 mg/m ³ (Rat) 1 h
Water	90 mL/kg (Rat)		

Chronic Toxicity:

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP

Target Organ Effects: Respiratory system, Eyes, Skin

12. Ecological Information**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Toxic to aquatic life with long lasting effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Phosphoric acid		3 - 3.5: 96 h <i>Gambusia affinis</i> mg/L LC50	4.6: 12 h <i>Daphnia magna</i> mg/L EC50

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Mobility: No information available.

13. Disposal Considerations

Waste from Residues/Unused Products: Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated Packaging: Do not reuse container.

14. Transport Information

DOT

Proper shipping name PHOSPHORIC ACID SOLUTION
 Hazard Class 8
 UN/ID No UN-1805
 Packing Group III
 Description UN1805, PHOSPHORIC ACID SOLUTION, 8, PG III



15. Regulatory Information

International Inventories
 All of the components in the product are on the following inventory lists: TSCA (United States);, Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), South Korea (KECL);, China (IECSC), Philippines (PICCS),
 This product contains a substance not listed on international inventories - it is for research and development use only.

AICS Complies
 TSCA Complies
 DSL/NDSL Complies
 EINECS/ELINCS Complies
 ENCS -
 IECSC Complies
 KECL Complies
 PICCS Complies

Chemical Name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Phosphoric acid	Listed	Listed	Listed	-	Listed	-	Present	Listed	Present	Present
Water	Listed	Listed	Listed	-	Listed	-	-	Listed	KE-35400	Present

Inventory Legend
 AICS - Australian Inventory of Chemical Substances
 TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances

RESTRICTIONS - REACH TITLE VII No information available

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	CERCLA Hazardous Substances and the Reportable Quantities	SARA Extremely Hazardous Substances EPCRA RQ	SARA Extremely Hazardous Substances TPQ
Phosphoric acid	5000 lb 2270 kg	-	-

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

U.S. State Right-to-Know Regulations

California Proposition 65:

This product does not contain any Proposition 65 chemicals

16. Other Information

National Fire Protection Association (NFPA) Ratings



Halal Certification



Kosher Certification



Prepared By: HSE Department
Issue Date: 10-May-2012
Revision Date: 26-Dec-2014
Revision Note: MSDS converted to GHS SDS Format.

Disclaimer:

Please be advised that it is your responsibility to inform your employees of the hazards of this substance, to advise them of what these properties mean and be sure they understand exposure information. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication.

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. No warranty or guaranty, express or implied, is made regarding performance, stability, or otherwise. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, and storage. Other factors may require additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, the handling and use remains the responsibility of the consumer. No suggestions are intended as, and should not be constructed as, a recommendation to infringe on any existing patents or to violate any Federal, State, or local laws.

End of Safety Data Sheet