Safety Data Sheet

1. IDENTIFICATION:

Product Name: PHOSPHORIC ACID
Synonyms: Ortho-phosphoric acid
CAS Number: Mixture
Catalog Numbers: 10218 U20869
Product Use: Analytical / Laboratory Reagent
Manufacturer: HF Scientific, Inc
Address: 3170 Metro Parkway Fort Myers, Fl 33916

General Information: 888-203-7248
Transportation Emergency Number: CHEMTREC® 24 hr US 800-424-9300
CHEMTREC® 24 hr International 703-527-3887

2. HAZARDS IDENTIFICATION

GHS Classification

Health	Environmental	Physical
Acute toxicity: Category 4 Skin irritation: Category 1 Eye irritation:Category 1 Respiratory Sensitizer: Category 1A	Aquatic toxicity: None	Flammable: No

GHS Label

Pictogram:	Signal Word: DANGER WARNING
Hazard Statements: Harmful If swallowed Harmful in contact with skin Harmful if inhaled Causes severe skin burns and eye damage Causes serious eye damage May cause allergy or asthma symptoms or breathing difficulties if inhaled	**Precautionary Statements** IF SWALLOWED do not induce vomiting. Give 1 OR 2 LARGE GLASSES OF WATER OR MILK. NEVER GIVE ANYTHING BY MOUTH to an unconscious person. Seek medical attention immediately. IF ON SKIN flush immediately with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Wash clothing before reuse. Seek medical attention immediately. IF INHALED immediately move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately. IF IN EYES flush immediately with plenty of water for at least 15 minutes, holding eyelids apart. Seek medical attention immediately. Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	Cas Number	Weight %
Phosphoric Acid	7664-38-2	53.5%
Water	7732-18-5	46.5%

4. FIRST AID MEASURES

Eye Contact: Flush immediately with plenty of water for at least 15 minutes, holding eyelids apart. Seek medical attention immediately.
Skin Contact: Flush immediately with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Wash clothing before reuse. Seek medical attention immediately.
Inhalation: Immediately move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately
Ingestion: Do not induce vomiting. Give 1 OR 2 LARGE GLASSES OF WATER OR MILK. NEVER GIVE ANYTHING BY MOUTH to an unconscious person. Seek medical attention immediately.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing media suitable to the surrounding fire.
Fire Fighting Procedures: Firefighters should wear proper protective equipment with self-contained NIOSH approved breathing apparatus with full face piece in the pressure demand mode.
Unusual Fire and Exposure Hazards: Contacts with most metals can form flammable and explosive hydrogen gas.
Combustion Products: N/A
NFPA Classification HEALTH: 3 FLAMMABLE: 0 REACTIVITY: 0

6. ACCIDENTAL RELEASE MEASURES

Cover spilled liquid with inert absorbent. Cover spill with sodium bicarbonate or soda ash and mix. Neutralized waste may be containerized and disposed of at an RCRA approved waste disposal facility. Flush area of spill with plenty of water and discard to sewer.

7. HANDLING AND STORAGE

Handling: Wash well after handling. Avoid breathing vapors.
Storage: Store in a tightly closed container. Keep away from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture, incompatibilities, and direct sunlight. Corrosive to mild steel. Store in rubber lined or 316 stainless steel designed for phosphoric acid. Do not wash out container and use it for other purposes. When diluting, the acid should always be added slowly to water and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. Protect from freezing. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:
OSHA Permissible Exposure Limit (PEL): 1 mg/m^3 (TWA)
ACGIH Threshold Limit Value (TLV): 1 mg/m^3 (TWA), 3 mg/m^3 (STEL)
Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.
Personal Protective Equipment:
Eyes: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area
Skin: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Respiratory: Not required under normal use. Avoid misting conditions. If the exposure limit is exceeded by any reason, a full facepiece respirator with high efficiency dust/mist filter may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint: N/A
Autoignition Temperature: N/A
Boiling Point: 158°C
Melting Point: 21°C
Vapor Pressure: 0.03 @ 20°C

Vapor Density: 3.4
% Solubility in Water: Miscible in all proportions in water

Pour Point: N/A
Molecular Formula: Mixture
Odor / Appearance: Colorless and odorless syrupy liquid

Lower Flammability Limit: N/A
Upper Flammability Limit: N/A
Specific Gravity: 1.69 @ 25°C
% Volatile: N/A
Evaporation Rate (Water=1): Not determined
Viscosity: N/A
Octanol / Water Partition Coefficient: N/A
pH: 1.5 (0.01 N aqueous solution)
Molecular Weight: Mixture

10. STABILITY AND REACTIVITY

Stability / Incompatibility: Stable under ordinary conditions of use and storage. Incompatible with metals, sulfides, sulfites and strong bases.
Conditions to Avoid: Mix only with water. Can react violently with bases or metals. Do not mix with chlorinated detergents or sanitizers, will cause hazardous vapors.
Hazardous Reactions / Decomposition Products: Toxic fumes of phosphorous oxides. Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Symptoms of Overexposure: Can cause severe irritation to skin and eyes. If ingested, causes chemical burns of mouth, throat and stomach. Vapors cause irritation to respiratory tract. People with asthma or other lung problems are more susceptible.
Acute Effects:Severe irritation of the skin, eyes and respiratory tract. Chemical burns to mouth, throat and stomach.

Eye Contact: Severe irritation to the eyes.
Skin Conatct: Severe irritation to the skin.
Inhalation: Irritation to the respiratory tract.
Ingestion: Chemical burns to mouth, throat and stomach.
Target Organs Effects: N/A
Chronic Effects: N/A
Medical Conditions Aggravated by Exposure: Asthma and other lung problems.
Acute Toxicity Values: N/A

12. ECOLOGICAL INFORMATION

Environmental Fate: When released into the soil, this material may leach into groundwater. When released to water, acidity may be readily reduced by natural water hardness minerals. The phosphate, however, may persist indefinitely.
Environmental Toxicity: Not Determined.

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

US DOT (United States Department of Transportation):
Proper Name: Phosphoric Acid Solution
Hazard Class: 8
Identification Number: UN1805
Packing Group: III
Label code: 8

IATA (International Air Transport Association):
Proper Name: Phosphoric Acid, Solution
Hazard Class: 8
PG: III

IMO (International Maritime Organization):
Proper Name: Phosphoric Acid Solution
Hazard Class: 8
Packing Group: III

15. REGULATORY INFORMATION

CERCLA: 5000
SARA/Title III: No
TSCA Inventory: No
Cal. Proposition 65: No
WHMIS: E, Corrosive material, disclosure at 1.0% according
Transportation of dangerous goods: Class 8
DSL: Yes
NDSL: No

16. OTHER INFORMATION

THE ABOVE INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. ALL PRODUCTS ARE OFFERED IN ACCORDANCE WITH THE MANUFACTURER'S CURRENT PRODUCTION SPECIFICATIONS AND ARE INTENDED SOLELY FOR USE IN ANALYTICAL TESTING. THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE RESULTING FROM THE HANDLING, USE OR MISUSE OF THESE PRODUCTS.