

1. IDENTIFICATION

Product Name Phosphorous Acid
Recommended use Synthesis of substances
Supplier Valudor Products, LLC.
 179 Calle Magdalena Suite 100
 Encinitas CA 92024
 (760)-635-8500
Emergency Telephone 800-535-5053 (Infotrac)

2. HAZARD IDENTIFICATION

Classification

This product is considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Acute Tox. (Oral)	Category 4
Skin Corrosion/Irritation	Category 1
Eye Damage/Irritation	Category 1
Corrosive to metals	Category 1

Label Elements

GHS Pictograms



Signal Word Hazard Statements

Danger
 May be corrosive to metals
 Harmful if swallowed
 Causes severe skin burns and eye damage

Precautionary Statements -Prevention

Keep only in original container
 Wash thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dusts or mists
 Wear protective gloves/protective clothing/eye protection/face protection

-Response

Skin

Inhalation

Ingestion

Absorb spillage to prevent material damage
 Wash contaminated clothing before reuse.
 Immediately call a poison center/doctor
 If on skin (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower.
 If inhaled: Remove person to fresh air and keep comfortable for breathing
 If swallowed: Rinse mouth. Do NOT induce vomiting
 If swallowed: Call a poison center/doctor if you feel unwell

Eye	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
-Storage	Store in corrosive resistant container with a resistant inner liner
-Disposal	Store locked up Dispose of contents in accordance with local/regional/national regulations
Hazards not other classified	None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance

Chemical Name	Phosphorous Acid
Synonym	NA
Formula	H3PO3
Molecular weight	82.00 g/mol
Cas No.	13598-36-2
Concentration	95-100%

4. FIRST-AID MEASURES

First Aid Measures

General Advice	If exposed or concerned get medical advice. Show this safety data sheet to the doctor in attendance.
Eye Contact	Immediately rinse with plenty of water. Remove contact lenses, if present and easy to do so. Keep eye wide open while rinsing. Continue rinsing for 15 minutes. Seek immediate medical attention
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediately remove all contaminated clothes and shoes. Seek immediate medical attention
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical attention

Most important symptoms/effects, acute and delayed

Symptoms	No additional information available
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing Media Powder. Alcohol resistant foam. Water spray (fog). Carbon dioxide (CO2).

Unsuitable Extinguishing Media No information available

Specific Hazards Arising from the chemical

Hazardous combustion Thermal decomposition can lead to the release of irritation or

products toxic gases and vapors; including and not limited to:
Phosphorus oxides

Protective equipment and precautions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Do not breathe dust/fume/vapor/spray. Evacuate personnel to safe areas. Use personal protection recommended in Section 8. Ensure adequate ventilation.

Methods and materials for containment and cleanup

Methods for clean-up Corrosive solid. Collect spillage. Keep unauthorized personnel away. Keep in suitable closed containers for disposal

Environmental Precautions Prevent entry into waterways or sewers. Avoid release to the environment.

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in a well-ventilated environment. Do not breathe vapors / spray / mist / fume. Avoid contact with skin, eyes or clothing. Do not add water to this product. Wear personal protective equipment in section 8. Wash contaminated clothing before reuse. Wash thoroughly after handling. Wash before breaks and at the end of the workday. Do not eat, drink or smoke when using this product. Clean equipment and work area regularly.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep containers closed and labeled when not in use. Store locked up. Store in corrosive resistant container. Store under inert gas. Air sensitive.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the regional specific regulatory bodies.

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Consider the potential hazards of this material, applicable exposure limits, job activities and other substances in the workplace when designing controls and selecting personal protective equipment.

Personal Protective Equipment

Eye/face protection Tightly fitting safety goggles.

Skin protection	Long sleeved protective clothing. Chemical resistant apron. Choose the appropriate protective clothing and gloves based on the tasks being performed to avoid exposure to skin. Wear protective gloves. The following materials are suitable for protective gloves (Permeation time \geq 8 hours): Natural rubber/Natural latex - NR (0.5 mm) (use non-powdered and allergen free products) Polychloroprene - CR (0.5 mm) Nitrile rubber/Nitrile latex - NBR (0.35 mm) Butyl rubber - Butyl (0.5 mm) Fluoro carbon rubber - FKM (0.4 mm) Polyvinyl chloride - PVC (0.5 mm)
Respiratory protection	If exposure limits are exceeded or if irritation or other symptoms are experienced use a NIOSH/MSHA approved respirator
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink or smoke when using this product. Inspect personal protective equipment before use.

9. PHYSICAL and CHEMICAL PROPERTIES

Appearance	White
Physical state	Solid
Odor	Odorless
Odor threshold	No information available
pH	< 1 in a 1% aqueous solution
Melting point / freezing point	73 C / 163.4 F
Boiling point / Boiling range	180 C / 356 F
Flash point	No information available
Evaporation rate	Not applicable
Flammability	No information available
Flammability or explosive limits	
Upper	No information available
Lower	No information available
Vapor pressure	<1 hPa at 20C
Vapor density	No information available
Specific Gravity	1.651
Solubility in water	Soluble
Partition coefficient	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available

10. STABILITY AND REACTIVITY

Reactivity	None known under normal conditions.
Chemical stability	Stable under ordinary conditions of use and storage.
Possibility of hazardous	None known under normal processing.

reactions

Conditions to avoid	Exposure to air or moisture over prolonged periods.
Incompatible materials	Strong bases. Oxidizing agent. Metals.
Hazardous decomposition products	Hazardous combustion can lead to the release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Skin contact	Causes serious skin damage
Eye contact	Causes serious eye damage
Inhalation	Harmful if inhaled
Ingestion	Harmful if swallowed

Symptoms related to the physical chemical and toxicological characteristics

No information available

Delayed and immediate effects and also chronic effects form short and long-term exposure

Skin damage/irritation	Causes severe skin burns
Eye damage/irritation	Causes serious eye damage
Sensitization	Not classified
Mutagenic effects	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT – single exposure	Not classified
STOT – repeated exposure	Not classified
Aspiration hazard	Not classified

Acute Toxicity**Component information**

Component	Cas-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phosphorous acid	13598-36-2	1560 mg/kg	-	-

12. ECOLOGICAL INFORMATION

Ecotoxicity Should not be released to environment

Component	Freshwater Fish	Freshwater Algae	Water Flea
Phosphorous acid 13598-36-2	LC50: >100 mg/L/96 h (Cyprinus carpio)	EC50: 153 mg/L/72h (Pseudokirchnerella Subcapitata)	EC50: >1000 mg/l/48h (Daphnia magna)

Persistence and degradability No information available**Bioaccumulative potential** No information available**Mobility in soil** No information available

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Processing, use, or contamination of this product may occur during product use. Accordingly, it is the responsibility of the user to determine the proper disposal methodologies. Consult the appropriate state, regional or local regulations to ensure complete and accurate classification. Dispose of contaminated packaging in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT	Regulated
UN-No	2834
Proper Shipping Name	Phosphorous Acid
Hazard Class	8
Packing Group	III
IATA	Regulated
UN-No	2834
Proper Shipping Name	Phosphorous Acid
Hazard Class	8
Packing Group	III
IMDG	Regulated
UN-No	2834
Proper Shipping Name	Phosphorous Acid
Hazard Class	8
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

TSCA	Listed
DSL	Listed

US Federal Regulations

TSCA section 12(b) Export Notification
Not regulated

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).
Not applicable

SARA 311/312 Hazard Categorization

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No

Product name: Phosphorous acid

Date of Issue: 09/19/2019

Pressure No
Reactivity No

CERCLA/SARA 302 & 304

Section 302 & 304 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

Not Applicable

CWA (Clean Water Act)

Not Applicable

US State Regulations

California Proposition 65

This product does not contain any proposition 65 chemicals

16. OTHER INFORMATION

NFPA Ratings Health: 3 Flammability: 0 Reactivity: 0

Creation Date: 09/19/2019

Revision Date:

Revision Number: 1

Revision Information: Creation

Disclaimer

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text