

# Material Safety Data Sheet

Phosphoric acid, 10% solution

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** Phosphoric acid, 10% solution

**Catalog Numbers:** C6064

**Synonyms:** Orthophosphoric acid.

**Company Identification:**

Lab Alley LLC  
22111 Highway 71 West, Suite 601  
Spicewood, Texas 78669

**For information, call:** 512-668-9918

**Emergency Number:** InfoTrac: 800-535-5053

## Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7732-18-5	Water	90	231-791-2
7664-38-2	Phosphoric acid	10	231-633-2

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

Appearance: clear colorless liquid.

**Warning!** Causes eye and skin irritation. Corrosive to metal.

**Target Organs:** Eyes, skin.

#### Potential Health Effects

**Eye:** Causes eye irritation.

**Skin:** Causes skin irritation.

**Ingestion:** May cause irritation of the digestive tract.

**Inhalation:** Inhalation of a mist of this material may cause respiratory tract irritation. Material has a low vapor pressure, so exposure to vapor is not likely.

**Chronic:** Chronic exposure may cause effects similar to those of acute exposure.

## Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid.

**Skin:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

**Ingestion:** If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool. Substance is noncombustible. Contact with metals may evolve flammable hydrogen gas.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Do not use metal tools.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid breathing spray or mist.

**Storage:** Keep away from metals. Store in a cool, dry area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
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Water	none listed	none listed	none listed
Phosphoric acid	1 mg/m <sup>3</sup> TWA; 3 mg/m <sup>3</sup> STEL	1 mg/m <sup>3</sup> TWA 1000 mg/m <sup>3</sup> IDLH	1 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:** Water: No OSHA Vacated PELs are listed for this chemical. Phosphoric acid: 1 mg/m<sup>3</sup> TWA

**Personal Protective Equipment**

**Eyes:** Wear chemical splash goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** clear colorless

**Odor:** Not available.

**pH:** acidic

**Vapor Pressure:** 0.03 mm Hg @ 20 deg C

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** Not available.

**Decomposition Temperature:** Not available.

**Solubility:** Soluble.

**Specific Gravity/Density:** Not available.

**Molecular Formula:** H<sub>3</sub>PO<sub>4</sub>

**Molecular Weight:** 98.00

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Excess heat.

**Incompatibilities with Other Materials:** Metals, strong bases, A 5% solution of H<sub>3</sub>PO<sub>4</sub> is DOT corrosive to both aluminum & carbon steel (results: 272.1 mils/yr & 319.6 mils/yr, respectively). A 4% H<sub>3</sub>PO<sub>4</sub> solution corrodes aluminum at 209.1 mils/yr & carbon steel at 240.9 mils/yr..

**Hazardous Decomposition Products:** Oxides of phosphorus.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:****CAS# 7732-18-5:** ZC0110000**CAS# 7664-38-2:** TB6300000**LD50/LC50:****CAS# 7732-18-5:**

Oral, rat: LD50 = &gt;90 mL/kg;

**CAS# 7664-38-2:**

Draize test, rabbit, eye: 119 mg Severe;

Draize test, rabbit, skin: 595 mg/24H Severe;

Inhalation, mouse: LC50 = 25.5 mg/m<sup>3</sup>;Inhalation, rat: LC50 = >850 mg/m<sup>3</sup>/1H;Inhalation, rat: LC50 = 25.5 mg/m<sup>3</sup>;

Oral, mouse: LD50 = 1.25 gm/kg;

Oral, rat: LD50 = 1530 mg/kg;

Oral, rat: LD50 = 1.25 gm/kg;

Skin, rabbit: LD50 = 2740 mg/kg;

**Carcinogenicity:****CAS# 7732-18-5:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.**CAS# 7664-38-2:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.**Epidemiology:** No data available.**Teratogenicity:** No data available.**Reproductive Effects:** No data available.**Mutagenicity:** No data available.**Neurotoxicity:** No data available.**Other Studies:****Section 12 - Ecological Information**

No information available.

**Section 13 - Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.**RCRA U-Series:** None listed.**Section 14 - Transport Information**

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7732-18-5 is listed on the TSCA inventory.

CAS# 7664-38-2 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 7664-38-2: 5000 lb final RQ; 2270 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 7664-38-2: immediate.

**Section 313** No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

CAS# 7664-38-2 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7664-38-2 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

## **European/International Regulations**

### **European Labeling in Accordance with EC Directives**

#### **Hazard Symbols:**

XI

#### **Risk Phrases:**

R 36/38 Irritating to eyes and skin.

#### **Safety Phrases:**

S 24/25 Avoid contact with skin and eyes.

### **WGK (Water Danger/Protection)**

CAS# 7732-18-5: No information available.

CAS# 7664-38-2: 1

### **Canada - DSL/NDSL**

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 7664-38-2 is listed on Canada's DSL List.

### **Canada - WHMIS**

This product has a WHMIS classification of E.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

### **Canadian Ingredient Disclosure List**

CAS# 7664-38-2 is listed on the Canadian Ingredient Disclosure List.

## Section 16 - Additional Information

**MSDS Creation Date:** 9/30/1997

**Revision #4 Date:** 10/03/2005

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Lab Alley LLC be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Lab Alley LLC has been advised of the possibility of such damages.*