SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Phosphoric Acid, Sulfuric Acid Mixture
CAS number	See section 3
Synonyms	None

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive metals (Category 1)
Acute Oral Toxicity (Category 4)
Skin Corrosion/Irritation (Category 1A)
Serious Eye Damage/Eye Irritation (Category 1)
Specific Target Organ Toxicity - single exposure (Category 3)
Target Organ- Respiratory tract irritation
Hazardous to the aquatic environment - short-term (Category 3)
Hazardous to the aquatic environment - long-term (Category 3)

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal Word: Danger

Hazard statements:
May be corrosive to metals.
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause repiratory irritation.

Precautionary statements:

Prevention:
Keep only in original container.
Wash skin thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.

Response:
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/ doctor if you feel unwell.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Spills:
Absorb spillage to prevent material damage.

Storage:
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Store in corrosive resistant polypropylene container with a resistant inliner.
Store in a dry place.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Warning. Cancer - https://www.p65warnings.ca.gov/

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Phosphoric acid	Phosphorsaeure; orthophosphoric acid	7664-38-2	40%
Sulfuric Acid	N/A	7664-93-9	5%
Water	H2O	7732-18-5	55%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice Show this sheet to a doctor if medical advice is needed.

If inhaled Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

In case of skin contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

In case of eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

If swallowed Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2 Most important symptoms and effects, both acute and delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Foam, Powder, Carbon dioxide (CO2).

Unsuitable extinguishing media The product reacts with water and will generate heat.

5.2 Specific hazards arising from the substance or mixture

Contact with metals may evolve flammable hydrogen gas. During fire, gases hazardous to health may be formed. Not combustible. Ambient fire may liberate hazardous vapours. Fire may cause evolution of: Oxides of phosphorus.

5.3 Special protective equipment and precautions for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. Move containers from fire area if you can do so without risk.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.

Lower No data available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
3	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

6.2 Environmental precautions

Should not be released into the environment. Do not let product enter drains, waterways, sewer, basements or confined areas. Never return spills to original containers for re-use.

6.3 Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

6.4 Reference to other sections

Refer to protective measures listed in Sections 7 and 8. See section 13 for proper disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. No metal or light-weight-metal containers. Tightly closed. Store in tightly closed container. Keep only in the original container. Store away from incompatible materials.

Incompatibilities

Strong oxidizing agents. Combustible material. Bases. Organic materials. Reducing Agent. Finely powdered metals. Peroxides. Avoid sources of heat, radiation, static electricity, and contact with food.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Phosphoric acid	TWA	1 mg/m3
Sulfuric acid	TWA	1 mg/m3

US. ACGIH Threshold Limit Values

Component	Type	Value
Phosphoric acid	TWA	1 mg/m3
	STEL	3 mg/m3

Sulfuric acid	TWA	0.2 mg/3

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Phosphoric acid	TWA	1 mg/m3
	STEL	3 mg/m3
Sulfuric acid	TWA	1 mg/m3
	IDLH	15 mg/m3

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection

Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0.062 mm). The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR).

Body Protection

Disposable clothing for protection against chemical risks. For professional use only. Clean periodically according to the manufacturer's instructions.

Respiratory protection

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 experience.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear, colorless
Odor	Pungent
Odor Threshold	No information available
pH	Acidic
Melting Point/Range	No information available
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No information available
Lower	No information available
Vapor Pressure	No information available
Vapor Density	No information available
Density	No information available
Solubility	Completely soluble in water
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	Mixture
Molecular Weight	Mixture
VOC Content(%)	No information available
Oxidizing properties	None

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reactive.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Contact with metals may evolve flammable hydrogen gas. Reacts violently with water.

10.4 Conditions to avoid

Contact with incompatible materials. Do not mix with other chemicals. Shock and friction, contact with air, increase in temperature, sunlight, humidity.

10.5 Incompatible materials

Acids, water, oxidising materials, combustible materials, avoid alkalis, strong bases, Aluminum, iron/iron-containing compounds, mild steel, reducing agents, metals.

10.6 Hazardous decomposition products

In the event of fire: see Section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phosphoric acid	1250 mg/kg (mouse)	2740 mg/kg (rabbit)	-
Sulfuric acid	2140 mg/kg (rat)	Not listed.	0.375 mg/L (rat)

Skin corrosion/irritation

Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in severe burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Germ cell mutagenicity

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Sulfuric acid	7664-	Group 1	Known	A2	Listed	A2

Specific target organ toxicity - single exposure
Respiratory system.

Specific target organ toxicity - repeated exposure
None known.

Reproductive toxicity
No information available.

Chronic effects
No information available.

11.2 Additional Information
Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Sulfuric acid	LC50	Brachydanio rerio	> 500 mg/L 96 h
	EC50	Water flea	29 mg/L 24 h
Phosphoric acid	EC50	Daphnia magna	> 100 mg/l, 48h static
	ErC50	Desmodesmus subspicatus	> 100 mg/l, 72h static
	NOEC	Desmodesmus subspicatus	100 mg/l, 72h static
	EC50	Activated sludge	> 1,000 mg/l, 3h static

12.2 Persistence and degradability
No information available.

12.3 Bio accumulative potential
No information available.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Harmful effect due to pH shift. Caustic even in diluted form. Depending on the concentration, phosphorus compounds may contribute to the eutrophication of water supplies. Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN Number	UN1760
Proper Shipping name	Corrosive liquids, n.o.s.
Hazard Class	8
Packaging Group	III
Technical name	Phosphoric Acid, Sulfuric Acid

IMDG

UN Number	UN1760
Proper Shipping name	Corrosive liquids, n.o.s.
Hazard Class	8
Packaging Group	III
Technical name	Phosphoric Acid, Sulfuric Acid

IATA

UN Number	UN1760
Proper Shipping name	Corrosive liquids, n.o.s.
Hazard Class	8
Packaging Group	III
Technical name	Phosphoric Acid, Sulfuric Acid

SECTION 15: Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not listed/applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed, Phosphoric acid (CAS #7664-38-2), RQ: 5000 lb.
Listed, Sulfuric acid (CAS #7664-93-9), RQ: 1000 lb.

SARA 304 Emergency release notification

Listed, Sulfuric acid (CAS #7664-93-9), RQ: 1000 lb.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed/applicable.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Listed, Sulfuric acid (CAS #7664-93-9), RQ: 1000 lb.

SARA 311/312 Hazardous

See section 2 for hazard classifications.

SARA 313 (TRI reporting)

Listed, Sulfuric acid (CAS #7664-93-9), Threshold values: 1.0%

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not listed/applicable.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Sulfuric Acid: Listed.

Safe Drinking Water Act

Listed, Phosphoric acid (CAS #7664-38-2), RQ: 5,000,000 lb.
Listed, Sulfuric acid (CAS #7664-93-9), RQ: 1,000,000 lb.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Listed, Phosphoric acid (CAS #7664-38-2).

US state regulations

US. Massachusetts RTK - Substance List

Listed, Sulfuric acid (CAS #7664-93-9).
Listed, Phosphoric acid (CAS #7664-38-2).

US. New Jersey Worker and Community Right-to-Know Act

Listed, Sulfuric acid (CAS #7664-93-9).
Listed, Phosphoric acid (CAS #7664-38-2).

US. Pennsylvania Worker and Community Right-to-Know Law

Listed, Sulfuric acid (CAS #7664-93-9).
Listed, Phosphoric acid (CAS #7664-38-2).

California Proposition 65

Listed, Sulfuric acid (CAS #7664-93-9).

SECTION 16: Other information

Date of Issue: 6/30/2025

SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.