SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Phosphoric Acid 30% Solution
CAS number	7664-38-2
Synonyms	Superphosphoric acid; phosphorsaeure; orthophosphoric acid

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

Identified uses	Fertilizer; pH modifier; cleaner (injection systems); food addictive; chemical treatment of metal surfaces; water treatment; acidifier.

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)

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute toxicity if swallowed: Category 4, H302
Corrisve to metals: Category 1, H290
Skin corrosion: Category 1B, H314

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal Word: Danger

Hazard statements:
Acute Toxicity 4: H302 - Harmful if swallowed.
Metal Corrosive 1: H290 - May be corrosive to metals.
Skin Corrosive 1B: H314 - Causes severe skin burns and eye damage.
P234: Keep only in original container.

Precautionary statements:
P280: Wear protective gloves/face protection/protective clothing/ protective footwear.
P301+P330+P331: IF SWALLOWED: rinse mouth. Do not induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340: IF INHALED: Remove victim to fresh ait and keep at rest in a position comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a poison center/doctor.

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

Non-applicable.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Phosphoric acid	H3PO4	7664-38-2	30%
Water	H2O	7732-18-5	70%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled: This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

In case of skin contact	Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.
In case of eye contact	Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.
If swallowed	Request immediate medical assistance, showing the SDS of this product. Do no induce vomiting, because its expulsion form the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss and consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms and effects, both acute and delayed

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

Non-applicable.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Product is non-flammable under normal conditions of storage, handling and use. In the case of combition as a result of improper handling, storage or use preferrable use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.
Unsuitable extinguishing media	Non-applicable.

5.2 Specific hazards arising from the substance or mixture

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for firefighters

Depensing on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit).

5.4 Further information

Flash Point
Non Flammable
Autoignition Temperature
Not applicable
Explosion limits

Upper Non-applicable
Lower Non-applicable
Sensitivity to Mechanical Impact Non-applicable
Sensitivity to Static Discharge Non-applicable
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

Isolate leaks provided that there is no additional risk for the perople performing this task. Personal protection equipment must be used against potential contact with the split product (see section 8). Evacuate the area and keep out those who do not have protection. Emergency responders: wear protective equipment. Keep unprotected persons away. (See section 8).

6.2 Environmental precautions

The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibilty of the waster generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up

It is recommended: Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements. See sections 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

General precautions for safe use: Comply with the current standards 19 CFR 1910 Occupational Safety and Health Standards. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used. KEEP ONLY IN ORIGINAL CONTAINER.

Techinical recommendations for the prevention of fires and explostion: Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affects flammable products. Consult section 10 for information on conditions and materials that should be avoided.

Techinical recommendations to prevent enviromental risks: It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3).

Hygiene measures
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions
Maximum temperature: 95 °F.

Incompatibilities
Avoid sources of heat, radiation, static electricity and contact with food. For additional information, see subsection 10.5.

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	8-hour TWA PEL	1 mg/m3

US. ACGIH Threshold Limit Values

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

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Phosphoric acid	REL-TWA	1 mg/m3
	REL-ST	3 mg/m3
	IDLH	1000 mg/m3

CALIFORNIA- TABLE AC-1 PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS

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

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls
Individual protection measures, such as personal protective equipment. As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the application, to provie the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 19 CFR 1910.132.

Personal protective equipment

Eye/face protection
Safety glasses with side shields or goggles. Face shield. Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR).

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
Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed.

Control of environmental exposure
In accordance with the community legislation for the protection of the enviroment it is recommended to avoid enviromental spillage of both the product and its container. For additional information, see subsection 7.1.D.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear, colorless
Odor	Odorless
Odor Threshold	Not determined
pH	No information available.
Melting Point/Range	70 °F
Boiling Point/Range	236 - 343 °F
Evaporation Rate	Not applicable.
Flammability (solid)	Not applicable.
Flammability or explosive limit	
Upper	Not determined.
Lower	Not determined.
Vapor Pressure	No information available
Vapor Density	3.4
Density	1.685
Solubility	Not applicable.
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	>316 °F
Viscosity	No information available
Molecular Formula	H3PO4
Molecular Weight	98.00 g/mol
VOC Content(%)	0 % weight
Oxidizing properties	No information available.

9.2 Other safety information
No additional information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability
Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid
Shock and friction, contact with air, increase in temperature, sunlight, humidity.

10.5 Incompatible materials
Acids, water, oxidising materials, combustible materials, avoid alkalis and strong bases.

10.6 Hazardous decomposition products

See subsection 10.3, 10.4, and 10.5 to find out the specific decomposition prodcuts. Depending on the decomposition conditions comples mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide (CO) and other organic compounds.

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)	>5 mg/L

Skin corrosion/irritation

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

Serious eye damage/eye irritation

Produces serious eye damage after contact.

Respiratory or skin sensitization

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.

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. For more information see section 3.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Phosphoric acid	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Specific target organ toxicity - repeated exposure

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Reproductive toxicity

No additional information available.

Chronic effects

No additional information available.

11.2 Additional Information
Non-applicable.

SECTION 12: Ecological information

12.1 Toxicity
Not available.

12.2 Persistence and degradability
Not available.

12.3 Bio accumulative potential
Not available.

12.4 Mobility in soil
Not available

12.5 Results of PBT and vPvB assessment
Non-applicable.

12.6 Endocrine disrupting properties
Not available.

12.7 Other adverse effects
Not described.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods
Consult the authorized waste service manager on the assessment and diposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains.
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:	UN1805
Proper Shipping Name	PHOSPHORIC ACID, SOLUTION
Hazard Class	8
Packing Group	III

IMDG

UN Number:	UN1805

Proper Shipping Name	PHOSPHORIC ACID SOLUTOIN
Hazard Class	8
Packing Group	III

IATA

UN Number:	UN1805
Proper Shipping Name	PHOSPHORIC ACID SOLUTION
Hazard Class	8
Packing Group	III

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Listed: Phosphoric acid (7664-38-2)
Water (7732-18-5)

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed: Phosphoric acid (5000 pounds)

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Not regulated

SARA 313 (TRI reporting)

Not regulated

Other federal regulations

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

Not regulated

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

Not regulated.

Safe Drinking Water Act

Not regulated

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

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Listed: Phosphoric acid (7664-38-2)

US. Minnesota - Hazardous substances ERTK

Listed: Phosphoric acid (7664-38-2)

US. Rhose Island RTK- Hazardous substances

Listed: Phosphoric acid (7664-38-2)

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

Listed: Phosphoric acid (7664-38-2)

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

Listed: Phosphoric acid (7664-38-2)

California Proposition 65

Non applicable

Other legislation

CANADA- DSL

Listed: Phosphoric acid (7664-38-2);
Water (7732-18-5)

SECTION 16: Other information

Issue date: 12/03/2018
Revision 1: 04/12/2024
Revision 2: 07/08/2024

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.