SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Phosphoric Acid 85% Solution
CAS number	7664-38-2
Synonyms	Superphosphoric acid; phosphorsaeure.

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)

Acute toxicity if swallowed	Category 4
Corrosive to metals	Category 1
Skin corrosion	Category 1B

2.2 GHS Label elements, including precautionary statements

Pictogram	
	#VALUE!
Signal Word	Danger
Hazard statements	Harmful if swallowed. May be corrosive to metals. Causes severe skin burns and eye damage.
Precautionary statements	Keep only in original container. Wear protective gloves/face protection/protection clothing/protection footwear. IF SWALLOWED: rinse mouth. Do not induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

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	Superphosphoric acid	7664-38-2	82-87%
Water	H2O	7732-18-5	<15%

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 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 remove 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 not induce vomiting, because its expulsion form the stomach can be hazardous to the mucous 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 perferrable use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing medi No information.

5.2 Specific hazards arising from the substance or mixture
As a result of combustion or thermal decomposition reactice 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 us full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first air kit).

5.4 Further information

Flash Point Non Flammable

Autoignition Temperature No information available.

Explosion limits

Upper No information available.
Lower No information 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

Isolate leaks provided that there is no additional risk for the people 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 person 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 responsibility 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 condult section 13.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling
General precuations 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.

Technical recommendations for the prevention of fires and explosion: Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended of 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.

Technical recommedations to prevent environmental 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

Biological occupational exposure limits
No information available.

8.2 Exposure controls

Appropriate engineering controls
Individual protection measures, such a personal protective equipment. As a preventive measure it is recommended to us basic Personal Protection Equipment. For more information on Person 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 container herein is a recommendation, the application, the provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risk 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 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 indiciated 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
Disposiable 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 environment it is recommended to avoid environmental 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	No information available
pH	No information available
Melting Point/Range	70 °F
Boiling Point/Range	236 - 343 °F
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	3.4
Density	1.685
Solubility	No information available
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 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 (CO), carbon monoxide 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	7664-38-2	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 avaialble.

11.2 Additional Information
Non-applicable.

SECTION 12: Ecological information

12.1 Toxicity
No information available.

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
No information available

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-No	UN1805
Proper Shipping Name	PHOSPHORIC ACID, SOLUTION
Hazard Class	8
Packing Group	III

IMDG

UN-No	UN1805
Proper Shipping Name	PHOSPHORIC ACID, SOLUTION
Hazard Class	8
Packing Group	III

IATA

UN-No	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

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed

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 listed.

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

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

Listed

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

Listed

California Proposition 65

Not listed

SECTION 16: Other information

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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.