

SECTION 1: IDENTIFICATION
Product Identifier
Product Form: Liquid

Product Name: 0.85% Phosphoric Acid

Synonyms: 0.85 % H₃PO₄, 0.85% o-Phosphoric Acid

Intended Use of the Product
Use of the Substance/Mixture: Used as a regenerative agent in LSA experiments

Name, Address, and Telephone of the Responsible Party

Company

Carterra Inc.

825 N 300 W

Suite C309

Salt Lake City, UT 84103

844.642.7635 x736

Emergency Number: 1-800-535-5053 for domestic USA, 1-352-323-3500 for International.

Account Number: 114962

SECTION 2: HAZARDS IDENTIFICATION
Classification of the Substance or Mixture
GHS-US Classification

Skin corrosion, 1B

Label Elements
GHS-US Labeling
Hazard Pictograms (GHS-US)

:


Signal Word (GHS-US)

 : **Danger**
Hazard Statements (GHS-US)

 : **H314 – Causes severe skin burns and eye damage**
Precautionary Statements (GHS-US)

 : **P280 – Wear protective gloves/protective clothing/eye protection/ face protection**
P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P310 – IF exposed or concerned: Immediately call a POISON CENTER/doctor.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
Mixture

Name	CAS No.	%	Classification
Orthophosphoric acid	7664-38-2	0.75 – 0.95	H314 H290
Water	7732-18-5	99.25-99.05	None Specified

SECTION 4: FIRST AID MEASURES
First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice

First-aid Measures After Inhalation: Move to fresh air. If breathing is irregular or stopped, give artificial respiration.

First-aid Measures After Skin Contact: Wash off immediately with soap and plenty of water, removing all contaminated clothing. Immediate medical treatment required as corrosive injuries that are not treated are hard to cure.

First-aid Measures After Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses. Consult a physician.

First-aid Measures After Ingestion: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Rinse mouth thoroughly with water. Give nothing to eat or drink.

Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: None specified

Symptoms/Injuries After Inhalation: None specified

Symptoms/Injuries After Skin Contact: None specified

Symptoms/Injuries After Eye Contact: None specified

Symptoms/Injuries After Ingestion: None specified

Chronic Symptoms: None specified

Indication of Any Immediate Medical and Special Treatment Needed

Note to Physician: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical, CO₂, water spray, or regular foam

Unsuitable Extinguishing Media: None specified

Special Hazards Arising from the Substance or Mixture

Fire Hazard: None

Explosion Hazard: None

Reactivity: No information available

Advice for Firefighters

Precautionary Measures: No information available

Firefighting Instructions: DO NOT fight fire when fire reaches explosives. Do not allow run off from firefighting to enter drains or water courses.

Protection During Firefighting: MSHA/NIOSH (approved or equivalent) and full protective gear.

Hazardous Combustion Products: Phosphorous oxides

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

General Measures: Avoid contact with skin, eyes, and clothing. Remove and wash contaminated clothing before reuse. Do not breath vapors/dust.

For Non-Emergency Personnel

Protective Equipment: Wear protective gloves/clothing

Emergency Procedures: Evacuate non-essential personnel from laboratory

For Emergency Personnel

Protective Equipment: Wear protective gloves/clothing

Emergency Procedures: Evacuate non-essential personnel from laboratory

Environmental Precautions

Discharge into environment must be avoided.

Methods and Materials for Containment and Cleanup

For Containment: Prevent further leakage or spillage if safe to do so

Methods for Cleanup: No information available

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: None

Precautions for Safe Handling: Handle in accordance with good industrial hygiene and safety practice.

Conditions for Safe Storage, Including any Incompatibilities

Technical Measures: None specified

Storage Conditions: Store at 2 – 8 °C. Keep containers tightly closed in a well-ventilated place.

Incompatible Products: Strong oxidizers

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Component	CAS-No.	Value	Control Parameters
Orthophosphoric Acid	7664-38-2	LTV	1 mg/m ³
Orthophosphoric Acid	7664-38-2	STV	3 mg/m ³ (1)
Water	7732-18-5	Not Established	Not Established

Exposure Controls and Risk Management Measures

- Appropriate Engineering Controls** : Showers, Eyewash stations, Ventilation systems
- Materials for Protective Clothing** : NBR (Nitrile rubber)
- Hand Protection** : Short term Contact
Material: Nitrile Rubber
Thickness: 0.12 mm
Breakthrough time: > 480 min
Long Term Contact
Material: Nitrile Rubber
Thickness: 0.38 mm
Breakthrough time: > 480 min
- Eye Protection** : Avoid contact with eyes. Wear safety glasses with side-shields
- Skin and Body Protection** : Wear protective clothing when handling
- Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
- Environmental Exposure Controls** : None specified
- Other Information** : None specified

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
Information on Basic Physical and Chemical Properties

- Physical State** : Liquid
- Appearance** : Clear
- Odor** : No data available
- Odor Threshold** : No data available
- pH** : 1.24 – 1.84
- Evaporation Rate** : No data available
- Melting Point** : No data available
- Freezing Point** : No data available
- Boiling Point** : No data available
- Flash Point** : No data available
- Auto Ignition Temperature** : No data available
- Decomposition Temperature** : No data available
- Flammability (solid, gas)** : No data available
- Vapor Pressure** : 2 hPa (20 °C)
- Relative Vapor Density at 20° C** : No data available
- Relative Density** : No data available
- Specific Gravity** : No data available
- Solubility** : Miscible with water
- Partition Coefficient: N-Octanol/Water** : No data available
- Viscosity** : No data available

SECTION 10: STABILITY AND REACTIVITY
Reactivity: Corrosive to metals

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions:

Risk of explosion with:

Alkali metals, alkaline earth metals, alkali (lye)

Risk of violent reaction with:

Light metals, powdered metals

Risk of exothermic reaction with:

Water, organic substances

Conditions to Avoid: Extremes of temperature and direct sunlight, humidity

Incompatible Materials: metals

Hazardous Decomposition Products: Phosphorous oxides

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity:

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Orthophosphoric acid	> 1530 mg/kg (rat)	> 2740 mg/kg (Rabbit)	< 0.21 mg/l (4hr) (Rat)

Skin Corrosion/Irritation: Causes severe burns to skin

pH: None Specified

Serious Eye Damage/Irritation: Causes serious eye damage

pH: None Specified

Respiratory or Skin Sensitization: Not sensitizing

Germ Cell Mutagenicity: None Specified

Carcinogenicity: None Specified

IARC: None Specified

NTP: None Specified

OSHA: None Specified

Reproductive Toxicity: None Specified

Specific Target Organ Toxicity (Single Exposure): None Specified

Specific Target Organ Toxicity (Repeated Exposure): None Specified

Aspiration Hazard: None Specified

Symptoms/Injuries After Inhalation: None Specified

Symptoms/Injuries After Skin Contact: Causes severe burns to skin

Symptoms/Injuries After Eye Contact: Causes serious eye damage

Symptoms/Injuries After Ingestion: None Specified

Chronic Symptoms: None Specified

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity: Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

Persistence and degradability Miscible with water. Persistence is unlikely based on information available.

Behavior in environmental systems:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available. ·

Additional ecological information: ·

General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Results of PBT and vPvB assessment · PBT: Not applicable. · vPvB: Not applicable.

Other adverse effects: No further relevant information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods:

Recommendation: Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulation

Uncleaned packaging:

Recommendation: Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not dispose of waste into sewer. Large amounts will affect pH and harm aquatic organisms. Solutions with low pH-value must be neutralized before discharge.

Recommended cleansing agent: Water, if necessary, with cleansing agents.

SECTION 14: TRANSPORT INFORMATION

UN-Number · UN1805

UN proper shipping name: Phosphoric Acid Solution

DOT Phosphoric Acid Solution

IMDG, IATA Phosphoric Acid Solution



Transport hazard class(es): Class 8 Corrosive substances · Label 8

IMDG, IATA: Class 8 Corrosive substances · Label 8

Environmental hazards: · Marine pollutant: No

Special precautions for user

Warning: Corrosive substances

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

Transport/Additional information:

DOT Quantity limitations: No

IMDG Limited quantities (LQ) 1L: No

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations/legislation specific for the substance or mixture

Section 355 (extremely hazardous substances): None of the ingredients is listed.

Section 313 (Specific toxic chemical listings): None of the ingredients is listed.

TSCA (Toxic Substances Control Act): All ingredients are listed.

Proposition 65 · Chemicals known to cause cancer: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.

Chemicals known to cause developmental toxicity: None of the ingredients is listed.

Carcinogenic categories ·

EPA (Environmental Protection Agency) None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH) None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients is listed. ·

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS). ·



Signal word Danger

Hazard-determining components of labeling: Phosphoric Acid Solution

Hazard statements Harmful if swallowed. Causes severe skin burns and eye damage.

Precautionary statements Do not breathe dusts or mists. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out

SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: Quality Assurance.

Creation date for SDS 06/21/2019

review SDS for accuracy. 10/24/2022