



Diamond Products Inc. Safety Data Sheet

The chemical described in the attached Safety Data Sheet was obtained from the Chemical Supplier noted in Section 1. This chemical has been repacked without modification into a smaller container for purposes of selling smaller quantities.

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Emergency Assistance

For emergency assistance involving chemicals call
Infotrac 1 800 535-5053

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Safety Data Sheet

According to Hazard Communication Standard (29 CFR 1910.1200)

Phosphoric acid solution

Version 1.0

Revision date: 05/18/2015

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1. Identification

Product name Phosphoric acid solution
Synonyms Orthophosphoric Acid.
CAS # See section 3
Product code -
Product use -
Manufacturer/Supplier
Supplier: CHEMSOL, LLC
Address: 601 CARLSON PARKWAY SUITE 400, MINNETONKA, MN 55305
Contact person(E-mail): corey.dooley@chemsolusa.com
Telephone: 952-261-0644
Fax: 952-745-7526
Emergency telephone Number: 800-424-9300

2. Hazard(s) identification

GHS classification

Physical hazards Not classified
Health hazards Skin corrosion/irritation Category 1B
Serious eye damage/eye irritation Category 1
Environmental hazards Not classified

GHS label elements

Hazard Pictograms



Signal word Danger
Hazard statement Causes severe skin burns and eye damage.

Precautionary statement

Prevention Do not breathe dust or mists.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep 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.
Wash contaminated clothing before reuse.

Storage Store locked up.
Disposal Dispose of contents/container in corroding with local regulation.

3. Composition / information on ingredients

Components	CAS#	Percent
Phosphoric acid	7664-38-2	75-85%
Water	7732-18-5	15-25%

4. First-aid Measures

First aid procedures

Eye contact Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin contact Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure. Destroy contaminated shoes.

Inhalation Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Ingestion Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Notes to physician

Persons with pre-existing skin disorders or impaired respiratory or pulmonary function may be at increased risk to the effects of this substance. Treat symptomatically and supportively.

5. Fire-fighting measures

Flammable properties

Not available.

Extinguishing media

Suitable extinguishing media Use extinguishing media most appropriate for the surrounding fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Unsuitable extinguishing media

Not available.

Firefighting equipment/instructions

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Cool containers with flooding quantities of water until well after fire is out.

Hazardous combustion products

Phosphine, oxides of phosphorus, irritating and toxic fumes and gases.

6. Accidental release measures

Personal precautions

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe

areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Environmental precautions

If leakage occurs, dam up. Resolve leaks if this possible without risk. Prevent from entering drainage system. Inform the competent authorities when water or canalisation has been infiltrated.

Methods for cleaning up

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

7. Handling and storage

Handling

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use with adequate ventilation. Use only in a chemical fume hood. Discard contaminated shoes.

Storage

Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from metals. Do not store in metal containers. Store away from alkalis.

8. Exposure controls / personal protection

Control parameters:

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA:

Source	Ingredient	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Levels (PELs) - Table Z1	Phosphoric acid	1mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	Phosphoric acid	1mg/m3	3 mg/m3	Not Available	TLV® Basis: URT, eye, & skin irr
US NIOSH Recommended Exposure Limits (RELs)	Phosphoric acid	1mg/m3	3 mg/m3	Not Available	Not Available

EMERGENCY LIMITS:

Ingredient	TEEL-1	TEEL-2	TEEL-3
Phosphoric acid	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
phosphoric acid	10000 mg/m3	1000 mg/m3
water	Not Available	Not Available

Exposure controls:

Appropriate engineering controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Individual protection measures, such as personal protective equipment:

Eye / face protection

Wear appropriate protective eyeglasses or chemical safety goggles.

Skin protection

Wear appropriate protective gloves to prevent skin exposure. Wear appropriate protective clothing to prevent skin exposure.

Respiratory protection

A respiratory protection program that meets OSHA's 29 CFR §1910.134 and ANSI

Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

General hygiene considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

9. Physical and chemical properties

Appearance

Physical state	Liquid
Form	Liquid
Color	Colorless
Odor	Odorless
Odor threshold	Not available
pH	Not available
Vapor pressure	2.16 - 5.65 mm Hg(20 °C)
Melting point/Freezing point	41.1 °C(CAS#7664-38-2)
initial boiling point and boiling range	135 -158 °C(760.00mm Hg)
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Explosion limits	Not available
Vapor density	Not available
Relative density	1.840(38 °C) (CAS#7664-38-2)
Solubility (water)	Miscible
Partition coefficient	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Specific gravity	1.573-1.693g/cm ₃ (25°C)
Density	Not available
Flammability limits in air, upper, %by volume	Not available
Flammability limits in air, lower, % by volume	Not available
VOC	Not available
Percent volatile	Not available
Other data	
Viscosity	3.86 mPa.s

10. Stability and reactivity

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Incompatible materials, metals, excess heat.
Incompatible materials	Strong bases, ammonia, finely powdered metals, organic peroxides, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium

hydroxide), cyanides (e.g. potassium cyanide, sodium cyanide), fluorides (inorganic, e.g. ammonium fluoride, calcium fluoride, cesium fluoride), halogenated organics (e.g. dibromoethane, hexachlorobenzene, methyl chloride, trichloroethylene), mercaptans and other organic sulfides (e.g. butyl mercaptan, carbon disulfide, methanethiol), nitromethane, sodium tetrahydroborate, sulfites, mineral acids, bleaching powder, aldehydes, strong alkalies, chlorides, nickel carbonate.

Hazardous decomposition products

Phosphine, oxides of phosphorus, irritating and toxic fumes and gases.

Possibility of hazardous reactions

No dangerous reactions known.

11. Toxicological information

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: Not available

Information on toxicological effects:

Acute toxicity:

Phosphoric acid (CAS#7664-38-2)

LD50(Oral, Rat):	2600 mg/kg
LD50(Dermal, Rabbit):	2740 mg/kg
LC50(Inhalation, Rat):	>850 mg/m ³ /1H
Skin corrosion/Irritation:	Causes severe skin burns and eye damage
Serious eye damage/irritation:	Causes serious eye damage
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

12. Ecological information

Toxicity:

Phosphoric acid (CAS#7664-38-2)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	138 mg/L	96h	Fish	OECD 203	N/A	N/A
EC50	> 100 mg/L	48h	Daphnia	OECD 202	N/A	N/A
EC50	> 100 mg/L	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability:

Not available.

Bioaccumulative potential:

Not available.

Mobility in soil:

Not available.

Results of PBT&vPvB assessment:

Not available.

Other adverse effects:

No known significant effects or critical hazards.

13. Disposal considerations

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Basic shipping requirements:

UN number	1805
Proper shipping name	PHOSPHORIC ACID SOLUTION
Hazard class	8
Packing group	III
Environmental hazards	No

IATA

UN number	1805
UN proper shipping name	PHOSPHORIC ACID SOLUTION
Transport hazard class(es)	8
Packing group	III
Environmental hazards	No

IMDG

UN number	1805
UN proper shipping name	PHOSPHORIC ACID SOLUTION
Transport hazard class(es)	8
Packing group	III
Environmental hazards	No

15. Regulatory information

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

Phosphoric acid(7664-38-2) is found on the following regulatory lists	"US - Hawaii Air Contaminant Limits", "US - Idaho - Limits for Air Contaminants", "US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values", "US - Alaska Limits for Air Contaminants", "US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants", "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory",
water(7732-18-5) is found on the following regulatory lists	"US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory" List.

16. Other information, including date of preparation or last revision

HMIS@ratings

Health: 3
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 3
Flammability: 1
Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

Issue date

05-18-2015