



Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

| | |
|----------------------------------|-----------------------------------------|
| Product Name | ● Phosphoric Acid 85% Tech Grade |
| Synonyms | ● Orthophosphoric Acid |
| CAS Number | ● 7664-38-2 |
| REACH Registration Number | ● 01-2119485924-24-0037 |

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

| | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Relevant identified use(s) | ● Polymerization of propylene; alkylating catalyst. Chemical – Strengthening or fortifying weak phosphoric acid solutions. Polymerization of propylene; alkylating catalyst |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

1.3 Details of the supplier of the safety data sheet

| | |
|---------------------|-----------------------------------------------------------------------------------|
| Manufacturer | ● Seeler Industries, Inc. 1 Genstar Drive Joliet, IL 60435 (815)740-2640 |
|---------------------|-----------------------------------------------------------------------------------|

1.4 Emergency telephone number

| | |
|---------------------|---------------------------|
| Manufacturer | ● 800-424-9300 - Chemtrec |
|---------------------|---------------------------|

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

- CLP**
- Corrosive to Metals 1 - H290
Skin Corrosion 1B - H314
- DSD/DPD**
- Corrosive (C)
R34

2.2 Label Elements

CLP

DANGER



- Hazard statements**
- H290 - May be corrosive to metals
 - H314 - Causes severe skin burns and eye damage.

Precautionary statements

- Prevention**
- P234 - Keep only in original container.
 - P260 - Do not breathe mist/vapours/spray.
 - P264 - Wash thoroughly after handling.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- P390 - Absorb spillage to prevent material damage.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 - P363 - Wash contaminated clothing before reuse.
 - P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P310 - Immediately call a POISON CENTER or doctor/physician.
 - P321 - Specific treatment (see First Aid measures on the Safety Data Sheet).
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- Storage/Disposal**
- P406 - Store in corrosive resistant/ container with a resistant inner liner.
 - P405 - Store locked up.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases**
- R34 - Causes burns.

- Safety phrases**
- S36 - Wear suitable protective clothing.
 - S37 - Wear suitable gloves.
 - S39 - Wear eye/face protection.
 - S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- This product is considered dangerous according to the European Directive 67/548/EEC.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Corrosive to Metals 1 - H290
Skin Corrosion 1B - H314

2.2 Label elements**OSHA HCS 2012****DANGER**

- Hazard statements**
- May be corrosive to metals - H290
Causes severe skin burns and eye damage. - H314

Precautionary statements

- Prevention**
- Keep only in original container. - P234
Do not breathe mist/vapours/spray. - P260
Wash thoroughly after handling. - P264
Wear protective gloves/protective clothing/eye protection/face protection. - P280
- Response**
- Absorb spillage to prevent material damage. - P390
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. - P301+P330+P331
Wash contaminated clothing before reuse. - P363
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
Immediately call a POISON CENTER or doctor/physician. - P310
Specific treatment, see supplemental first aid information. - P321
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
- Storage/Disposal**
- Store in corrosive resistant/ container with a resistant inner liner. - P406
Store locked up. - P405
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

2.3 Other hazards**OSHA HCS 2012**

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada**According to WHMIS****2.1 Classification of the substance or mixture****WHMIS**

- Corrosive - E

2.2 Label elements**WHMIS**

- Corrosive - E

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

| Composition | | | | | |
|-----------------|--------------------------------------|---------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Chemical Name | Identifiers | % | LD50/LC50 | Classifications According to Regulation/Directive | Comments |
| Phosphoric acid | CAS:7664-38-2 EC Number:231-633-2 | 36% TO 95% | Ingestion/Oral-Rat LD50 • 1.25 g/kg Inhalation-Rat LC50 • 25.5 mg/m ³ | EU DSD/DPD: Annex I: C; R34 EU CLP: Annex VI: Skin Corr. 1B, H314, Corr. to Metals 1, H290 OSHA HCS 2012: Skin Corr. 1B, H314, Corr. to Metals 1, H290 | NDA |

3.2 Mixtures

- Material does not meet the criteria of a mixture in accordance with Regulation (EC) No 1272/2008.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Administer oxygen if breathing is difficult. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give artificial respiration if victim is not breathing. Move victim to fresh air.

Skin

- For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. Remove and isolate contaminated clothing and shoes. Wash contaminated clothing before reuse.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. If the physician is not immediately available, eye irrigation should be continued for an additional 15 minutes. If it is necessary to transport the patient to a physician and the eye needs to be bandaged, use a dry sterile cloth pad and cover both eyes.

Ingestion

- If swallowed give 2-3 glasses of water if victim is conscious and alert. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Obtain medical attention immediately if ingested. Do not use mouth-to-mouth method if victim ingested the substance. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Persons attending the victim should avoid direct contact with heavily contaminated clothing and vomitus. Wear impervious gloves while decontaminating skin and hair.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

4.4 Other information

- Call 911 or emergency medical service. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media ● Not combustible. Use extinguishing media suitable for surrounding fire.

Unsuitable Extinguishing Media ● None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards ● Not combustible.
Under fire conditions, toxic, corrosive fumes are emitted.

Hazardous Combustion Products ● Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
Oxides of phosphorus.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Keep unauthorized personnel away.
Evacuate residents who are downwind of fire.
Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.
Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions ● Ventilate enclosed areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures ● Keep unauthorized personnel away. Dike spill using absorbent or impervious materials such as earth, sand or clay. Dike or retain dilution water or water from firefighting for later disposal.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas. Runoff from fire control or dilution water may cause pollution.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures ● Exercise caution during neutralization as considerable heat may be generated.
Neutralize spill area with soda ash, sodium bicarbonate or lime. Flush neutralized spill with copious amounts of water.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling ● Do not get on skin or in eyes. Avoid breathing vapors and mists. Do not ingest. Handle and open container with care. Use only with adequate ventilation. Use caution when combining with water; DO NOT add water to corrosive liquid, ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. This product reacts violently with bases liberating heat and causing spattering.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a dry, well-ventilated place. Store locked up. Keep away from incompatible materials. Ventilate enclosed areas.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

| Exposure Limits/Guidelines | | | | | | |
|-------------------------------------|----------|-----------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------|
| | Result | ACGIH | Argentina | Australia | Austria | Belgium |
| Phosphoric acid (7664-38-2) | STELs | 3mg/m3 STEL | 3 mg/m3 STEL [CMP-CPT] | 3mg/m3 STEL | 2 mg/m3 STEL [KZW] (4 X 15 min) | 2mg/m3 STEL |
| | TWAs | 1 mg/m3 TWA | 1 mg/m3 TWA [CMP] | 1 mg/m3 TWA | Not established | 1 mg/m3 TWA |
| | MAKs | Not established | Not established | Not established | 1 mg/m3 TWA [TMW] | Not established |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | China | Czech Republic | Denmark | Egypt | Finland |
| Phosphoric acid (7664-38-2) | STELs | 3mg/m3 STEL | Not established | Not established | 3mg/m3 STEL | 2mg/m3 STEL |
| | TWAs | 1 mg/m3 TWA | 1 mg/m3 TWA | 1 mg/m3 TWA | Not established | 1 mg/m3 TWA |
| | Ceilings | Not established | 2mg/m3 Ceiling | Not established | Not established | Not established |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | France | Germany DFG | Germany TRGS | Greece | Hong Kong |
| Phosphoric acid (7664-38-2) | STELs | 0.5 ppm STEL [VLCT] (indicative limit); 2 mg/m3 STEL [VLCT] (indicative limit) | Not established | Not established | 3mg/m3 STEL | 3mg/m3 STEL |
| | TWAs | 0.2 ppm TWA [VME] (indicative limit); 1 mg/m3 TWA [VME] (indicative limit) | Not established | 2 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, inhalable fraction, exposure factor 2) | 1 mg/m3 TWA | Not established |
| | Ceilings | Not established | 4 mg/m3 Peak (inhalable fraction) | Not established | Not established | Not established |
| | MAKs | Not established | 2 mg/m3 TWA MAK (inhalable fraction) | Not established | Not established | Not established |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Hungary | India | Indonesia | Ireland | Israel |
| Phosphoric acid (7664-38-2) | TWAs | 1 mg/m3 TWA [AK] | 1 mg/m3 TWA | 1 mg/m3 TWA | 1 mg/m3 TWA | 1 mg/m3 TWA |
| | STELs | 2mg/m3 STEL [CK] | 3mg/m3 STEL | Not established | 2mg/m3 STEL | 3mg/m3 STEL |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Italy | Japan | Korea | Malaysia | Mexico |
| Phosphoric acid | TWAs | 1 mg/m3 TWA | 1 mg/m3 OEL | 1 mg/m3 TWA (Serial No. 459) | 1 mg/m3 TWA | 1 mg/m3 TWA LMPE- PPT |

| (7664-38-2) | STELs | 2 mg/m ³ STEL | Not established | 3 mg/m ³ STEL (Serial No. 465) | Not established | 3 mg/m ³ STEL [LMPE-CT] |
|-------------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------|-------------------------|------------------------------------|
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Netherlands | New Zealand | NIOSH | Norway | OSHA |
| Phosphoric acid (7664-38-2) | TWAs | 1 mg/m ³ TWA | 1 mg/m ³ TWA | 1 mg/m ³ TWA | 1 mg/m ³ TWA | 1 mg/m ³ TWA |
| | STELs | 2mg/m ³ STEL | Not established | 3mg/m ³ STEL | Not established | Not established |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Philippines | Poland | Portugal | Singapore | South Africa |
| Phosphoric acid (7664-38-2) | STELs | Not established | 2mg/m ³ STEL [NDSch] | 3 mg/m ³ STEL [VLE-CD] | 3mg/m ³ STEL | 3mg/m ³ STEL |
| | TWAs | 1 mg/m ³ TWA | 1 mg/m ³ TWA [NDS] | 1 mg/m ³ TWA [VLE-MP] | 1 mg/m ³ PEL | 1 mg/m ³ TWA |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Spain | Sweden | Switzerland | Taiwan | United Kingdom |
| Phosphoric acid (7664-38-2) | MAKs | Not established | Not established | 1 mg/m ³ TWA [MAK] | Not established | Not established |
| | STELs | 2 mg/m ³ STEL [VLA-EC] | 3 mg/m ³ STV | 2 mg/m ³ STEL [KZW] (4 X 15) | Not established | 2mg/m ³ STEL |
| | TWAs | 1 mg/m ³ TWA [VLA-ED] (indicative limit value; it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound) | 1 mg/m ³ LLV | Not established | 1 mg/m ³ TWA | 1 mg/m ³ TWA |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Venezuela | | | | |
| Phosphoric acid (7664-38-2) | STELs | 3mg/m ³ STEL [LEB] | | | | |
| | TWAs | 1 mg/m ³ TWA [CAP] | | | | |

8.2 Exposure controls

Engineering Measures/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.

Personal Protective Equipment

Respiratory

- 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 symptoms are experienced.

Eye/Face

- Wear face shield and eye protection. An emergency eye wash must be readily accessible to the work area. Ensure safety shower is available near all areas of bulk storage, delivery and use.

Hands

- Wear protective gloves selected with regard to both durability as well as permeation resistance.

Skin/Body

- Wear protective clothing

General Industrial Hygiene Considerations

- Do not get in eyes or on skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
 MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration
 MSHA = Mine Safety and Health Administration
 NIOSH = National Institute of Occupational Safety and Health
 OEL = Occupational Exposure Limit(s)
 OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)
 STEL = Short Term Exposure Limits are based on 15-minute exposures
 STEV = Short Term Exposure Value
 NAB = Threshold Values (Indonesia)
 TWAEV = Time-Weighted Average Exposure Value
 TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

| Material Description | | | |
|-------------------------------------|-----------------------------------|------------------------|-------------------------------------------------------|
| Physical Form | Liquid | Appearance/Description | Colorless viscous liquid with no odor. |
| Color | Colorless | Odor | Odorless |
| Odor Threshold | Data lacking | | |
| General Properties | | | |
| Boiling Point | 100 to 200 C(212 to 392 F) | Melting Point | Refer to Product data sheet for specific information. |
| Decomposition Temperature | Data lacking | pH | < 1 |
| Specific Gravity/Relative Density | 1.22 to 1.81 Water=1 @ 25 C(77 F) | Water Solubility | Miscible |
| Viscosity | Data lacking | Explosive Properties | Not relevant. |
| Oxidizing Properties: | Not relevant. | | |
| Volatility | | | |
| Vapor Pressure | < 2 mmHg (torr) @ 20 C(68 F) | Vapor Density | Data lacking |
| Evaporation Rate | Data lacking | | |
| Flammability | | | |
| Flash Point | Not relevant | UEL | Not relevant |
| LEL | Not relevant | Autoignition | Not relevant |
| Flammability (solid, gas) | Not relevant. | | |
| Environmental | | | |
| Octanol/Water Partition coefficient | Data lacking | | |

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Incompatible materials.

10.5 Incompatible materials

- Strong oxidizing agents, strong reducing agents, bases and certain metals

10.6 Hazardous decomposition products

- Oxides of phosphorus.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- This material is an acid. The primary effects and toxicity of this material are due to its corrosive nature.

| | CAS | |
|---------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PHOS ACID 85% TG | 7664-38-2 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 1530 mg/kg • Comments: Data for phosphoric acid; Skin-Rabbit LD50 • 2740 mg/kg; Irritation: Eye-Rabbit • 119 mg/kg • Severe irritation, irreversible, burns (corrosive) • Comments: Data for phosphoric acid; Skin-Rabbit • 595 mg/kg 24 Hour(s) • Severe irritation, irreversible, burns (corrosive) |

| GHS Properties | Classification |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute toxicity | EU/CLP • Acute Toxicity - Dermal - Data lacking; Acute Toxicity - Inhalation - Data lacking; Acute Toxicity - Oral - Data lacking OSHA HCS 2012 • Acute Toxicity - Dermal - Inconclusive data; Acute Toxicity - Inhalation - Inconclusive data; Acute Toxicity - Oral - Data lacking |
| Aspiration Hazard | EU/CLP • Data lacking OSHA HCS 2012 • Not relevant |
| Carcinogenicity | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Germ Cell Mutagenicity | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Skin corrosion/Irritation | EU/CLP • Skin Corrosion 1B OSHA HCS 2012 • Skin Corrosion 1B |
| Skin sensitization | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| STOT-RE | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| STOT-SE | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Toxicity for Reproduction | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Respiratory sensitization | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Serious eye damage/Irritation | EU/CLP • Data lacking OSHA HCS 2012 • Classification criteria not met |

Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion

Potential Health Effects

Inhalation

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

- Chronic (Delayed)**
- Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.
- Skin**
- Acute (Immediate)**
- Causes severe skin burns and eye damage.
- Chronic (Delayed)**
- Repeated or prolonged exposure to corrosive materials will cause dermatitis.
- Eye**
- Acute (Immediate)**
- Corrosive. Can cause permanent damage to the cornea, blindness.
- Chronic (Delayed)**
- Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.
- Ingestion**
- Acute (Immediate)**
- Causes corrosion, burns to mouth and esophagus, abdominal pain, chest pain, nausea, vomiting, diarrhea, seizures. Aspiration of the swallowed or vomited product can cause severe pulmonary complications.
- Chronic (Delayed)**
- Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.
- Carcinogenic Effects**
- This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

Key to abbreviations

LD = Lethal Dose

TC = Toxic Concentration

Section 12 - Ecological Information**12.1 Toxicity**

| PHOS ACID 85% TG | | | 7664-38-2 | | |
|------------------|--------------------|------------|-----------|---------------------|----------|
| Dosage | Species | Duration | Results | Exposure Conditions | Comments |
| 138 mg/L | Fish: Mosquitofish | 96 Hour(s) | LC50 | NDA | NDA |

12.2 Persistence and degradability

- No data found for product.

12.3 Bioaccumulative potential

- No data found for product.

12.4 Mobility in Soil

- No data found for product.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects**Ecological Fate**

- No data found for product.

12.7 Other Information

- No specific biodegradation test data located. While acidity of this material is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.

Section 13 - Disposal Considerations**13.1 Waste treatment methods**

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. This material is considered an EPA hazardous waste. EPA "RCRA" Hazardous Waste Code: "C" Corrosive.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

| | 14.1 UN number | 14.2 UN proper shipping name | 14.3 Transport hazard class(es) | 14.4 Packing group | 14.5 Environmental hazards |
|-----------|----------------|------------------------------|---------------------------------|--------------------|----------------------------|
| DOT | UN1805 | Phosphoric acid solution | 8 | III | NDA |
| TDG | UN1805 | PHOSPHORIC ACID, LIQUID | 8 | III | NDA |
| IMO/MDG | UN1805 | PHOSPHORIC ACID SOLUTION | 8 | III | NDA |
| IATA/ICAO | UN1805 | Phosphoric Acid, Solution | 8 | III | NDA |

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

14.8 Other information

- The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.
- DOT** ● Phosphoric acid has a reportable quantity of 5000 lbs (2270 kg) as listed in Appendix A to 49 CFR 172.101.

Section 15 - Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications ● Acute

| Inventory | | | | | | |
|-----------------|-----------|------------|-------------|-------|-----------|-----------|
| Component | CAS | Canada DSL | Canada NDSL | China | EU EINECS | EU ELNICS |
| Phosphoric acid | 7664-38-2 | Yes | No | Yes | Yes | No |

| Inventory (Con't.) | | | | |
|--------------------|-----------|-------------|-------------------|------|
| Component | CAS | New Zealand | Philippines PICCS | TSCA |
| Phosphoric acid | 7664-38-2 | Yes | Yes | Yes |

Canada**Labor****Canada - List of Prohibited and Restricted Cosmetic Ingredients (The Cosmetic Ingredient Hotlist)**

● Phosphoric acid 7664-38-2 Not Listed

Canada - WHMIS - Classifications of Substances

● Phosphoric acid 7664-38-2 E (including <=85%)

Canada - WHMIS - Ingredient Disclosure List

● Phosphoric acid 7664-38-2 1 %

Environment**Canada - 2004 NPRI (National Pollutant Release Inventory)**

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Canada - 2005 NPRI (National Pollutant Release Inventory)

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Canada - CEPA - Priority Substances List

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Canada - DWQ (Drinking Water Quality) - IMACs

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Other**Canada - Accelerated Reduction/Elimination of Toxics (ARET)**

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Canada New Brunswick**Environment****Canada - New Brunswick - Ozone Depleting Substances - Schedule A**

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Germany**Environment****Germany - TA Luft - Types and Classes**

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Germany - Water Classification (VwVwS) - Annex 1

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

| | | |
|-------------------|-----------|---------------------------------------------------------|
| • Phosphoric acid | 7664-38-2 | ID Number 392, hazard class 1 - low hazard to waters |
|-------------------|-----------|---------------------------------------------------------|

Germany - Water Classification (VwVwS) - Annex 3

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Philippines**Other****Philippines - Priority Chemical List**

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Singapore**Other****Singapore - Corrosive and Explosive Substances - Corrosive Substances**

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Thailand

Environment

Thailand - Quantities of Chemicals

| | | |
|-------------------|-----------|---------------------------------|
| • Phosphoric acid | 7664-38-2 | 1 mg/m3 Quantities of Chemicals |
|-------------------|-----------|---------------------------------|

Thailand - Water Quality Criteria - Maximum Concentration Allowance

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - OSHA - Specifically Regulated Chemicals

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - CAA (Clean Air Act) - Class II Ozone Depletors

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

| | | |
|-------------------|-----------|------------------------------------|
| • Phosphoric acid | 7664-38-2 | 5000 lb final RQ; 2270 kg final RQ |
|-------------------|-----------|------------------------------------|

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

Other

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - California - Proposition 65 - Developmental Toxicity

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

| | | |
|-------------------|-----------|------------|
| • Phosphoric acid | 7664-38-2 | Not Listed |
|-------------------|-----------|------------|

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date • 14/October/2014

Preparation Date • 14/October/2014

Disclaimer/Statement of Liability • The information herein is given in good faith but no warranty, expressed or implied, is made.

Key to abbreviations

NDA = No Data Available

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