

SECTION 1: Identification

1.1. Identification

Product form	: Mixture
Product name	: RHIZOPHOS
Synonyms	: EC Fertilizer - PK solution
Other means of identification	: Sea-weed based fertilizer, for foliar spraying

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

Use of the substance/mixture	: Fertilizer
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1.3. Details of the supplier of the safety data sheet

Arysta LifeScience North America LLC
15401 Weston Parkway, Suite 150
Cary, NC 27513 - USA

1.4. Emergency telephone number

Emergency number	: Exposure Calls (PROSAR): +1-866-303-6952 or +1-651-603-3432 (international) Spill Calls (CHEMTREC) (Contract # CCN1779): +1-800-424-9300 or +1-703-527-3887 (international)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Met. Corr. 1 H290
Skin Corr. 1B H314

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS05

Signal word (GHS-US)	: Danger
Hazard statements (GHS-US)	: H290 - May be corrosive to metals H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS-US)	: P234 - Keep only in original container P260 - Do not breathe mist, vapours P264 - Wash hands thoroughly after handling P280 - Wear eye protection, protective gloves, face shield, protective clothing P301 + P330 + P331 - If swallowed: rinse mouth. Do NOT induce vomiting P303 + P361 + P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P304 + P340 - If inhaled: Remove person to fresh air and keep 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 doctor P321 - Specific treatment (see First aid measures on this label) P363 - Wash contaminated clothing before reuse P390 - Absorb spillage to prevent material damage P405 - Store locked up P406 - Store in corrosive resistant container with a resistant inner liner P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable.

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
Phosphoric acid	(CAS No) 7664-38-2	25 - 40	Met. Corr. 1, H290 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Irritation of the respiratory tract and the other mucous membranes.
- Symptoms/injuries after skin contact : Causes severe skin burns and eye damage. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
- Symptoms/injuries after eye contact : Causes serious eye damage.
- Symptoms/injuries after ingestion : May cause irritation of the mucous membranes.

4.3. Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
- Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

- Protective equipment : Chemical goggles or safety glasses. Face shield. In case of inadequate ventilation wear respiratory protection. Wear suitable gloves resistant to chemical penetration. PVC. rubber.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Chemical goggles or safety glasses. Face shield. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment. Wear suitable gloves. PVC. rubber.

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Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container. Never return spills to original container for re-use.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up in non-combustible absorbent material and shove into container for disposal. Absorb spillage to prevent material damage.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Do not breathe mist, spray, vapours.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Do not store near food, foodstuffs, drugs, or potable water supplies. Keep only in the original container in a cool well ventilated place.

Incompatible materials : metals.

Storage area : Store out of frost (-10 °C).

Packaging materials : Store in a corrosion resistant container with a resistant inner liner.

7.3. Specific end use(s)

Fertilizer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RHIZOPHOS		
ACGIH	Not applicable	
OSHA	Not applicable	
Phosphoric acid (7664-38-2)		
ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
ACGIH	ACGIH STEL (mg/m ³)	3 mg/m ³
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Emergency safety showers should be available in the immediate vicinity of any potential exposure. Eyewash stations. Provide local exhaust ventilation of closed transfer systems to minimize exposures.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear suitable gloves resistant to chemical penetration. PVC. rubber.

Eye protection : Face shield. Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing. Impervious clothing.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges.

Other information : Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Green

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Odour	: slight
Odour threshold	: No data available
pH	: 0.5 - 1
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: 1.29 - 1.305
Relative vapour density at 20 °C	: No data available
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions. Product color changes with time, without effect on its properties.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid excessive heat or cold. Do not store product at a temperature above 40 °C or below -10 °C.

10.5. Incompatible materials

metals. May be corrosive to metals.

10.6. Hazardous decomposition products

Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact

Acute toxicity : Not classified

Phosphoric acid (7664-38-2)	
LD50 oral rat	3500 mg/kg
LD50 dermal rat	1260 mg/kg
ATE US (oral)	3500.000 mg/kg bodyweight
ATE US (dermal)	1260.000 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

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Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Irritation of the respiratory tract and the other mucous membranes.
Symptoms/injuries after skin contact	: Causes severe skin burns and eye damage. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: May cause irritation of the mucous membranes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No ecotoxicological data about this product are known.

Phosphoric acid (7664-38-2)

LC50 fish 1	138 mg/l 96 h <i>Gambusia affinis</i>
EC50 <i>Daphnia</i> 1	> 100 mg/l 48 h

12.2. Persistence and degradability

RHIZOPHOS

Persistence and degradability : Not established.

12.3. Bioaccumulative potential

RHIZOPHOS

Bioaccumulative potential : Not established.

12.4. Mobility in soil

RHIZOPHOS

Ecology - soil : No additional information available.

12.5. Other adverse effects

Other information : No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Do not dispose in household garbage. Dispose of in authorized waste collection plant.
Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Dispose of container in a licensed facility.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT	
Transport document description	: UN1805 Phosphoric acid solution, 8, III
UN-No.(DOT)	: UN1805
Proper Shipping Name (DOT)	: Phosphoric acid solution
Packing group (DOT)	: III - Minor Danger
Hazard labels (DOT)	: 8 - Corrosive



Additional information

Other information : No supplementary information available.

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Transport by sea

IMDG

Transport hazard class(es) (IMDG) : 8



Marine pollutant : No
UN-No. (IMDG) : 1805
Transport document description (IMDG) : UN 1805 PHOSPHORIC ACID SOLUTION, 8, III
Class (IMDG) : 8 - Corrosive substances
Packing group (IMDG) : III - substances presenting low danger
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B

Air transport

IATA

Transport hazard class(es) (IATA) : 8



Marine pollutant : No
UN-No. (IATA) : 1805
Transport document description (IATA) : UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III
Class (IATA) : 8 - Corrosives
Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Phosphoric acid (7664-38-2)

CERCLA RQ	5000 lb
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15.2. International regulations

CANADA

Phosphoric acid (7664-38-2)

Listed on the Canadian DSL (Domestic Substances List) inventory

National regulations

Phosphoric acid (7664-38-2)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on Taiwan National Chemical Inventory
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Chinese Catalog of Hazardous Chemicals
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

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15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Phosphoric acid (7664-38-2)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision date : 08/12/2016

Data sources : European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.
National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.
Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H-statements:

H290	May be corrosive to metals
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage

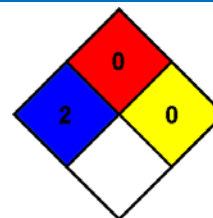
Abbreviations and acronyms:

	ACGIH (American Conference of Government Industrial Hygienists)
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	OSHA: Occupational Safety & Health Administration
	TSCA: Toxic Substances Control Act

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



Indication of changes:
Product identifier.

SDS Prepared by: The Redstone Group, LLC.
6077 Frantz Rd
Suite 206
Dublin, Ohio, USA 43016
614.923.7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product