

FOOP pH Down (Homegrower)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Date of Issue: 05/13/2022

Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: FOOP pH Down (Homegrower)

1.2. Intended Use of the Product

Use of the Substance/Mixture: To lower the pH of a nutrient solution

1.3. Name, Address, and Telephone of the Responsible Party

Company

FOOP Organic Biosciences, Inc.

2666 Pittman Drive

Silver Spring, MD 20910

1.646.221.9801

science@thefoop.com

<https://thefoop.com>

1.4. Emergency Telephone Number

(646) 221-9801

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US Classification

Met. Corr. 1 H290

Skin Irrit. 2 H315

Eye Irrit. 2A H319

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :



GHS05

Signal Word (GHS-US) :

Warning

Hazard Statements (GHS-US) :

H290 - May be corrosive to metals.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Precautionary Statements (GHS-US) :

P234 - Keep only in original container.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P280 - Wear protective gloves, protective clothing, and eye protection.

P302+P352 - If on skin: Wash with plenty of water.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P321 - Specific treatment (see section 4 on this SDS).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P390 - Absorb spillage to prevent material-damage.

P406 - Store in corrosive resistant container with a resistant inner liner.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

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3.2. Mixture

| Name | Synonyms | Product Identifier | % | GHS US classification |
|-----------------|--|---------------------|-------|---|
| Water | AQUA / water | (CAS-No.) 7732-18-5 | 86.57 | Not classified |
| Phosphoric acid | Orthophosphoric acid / Phosphoric acid solution / PHOSPHORIC ACID / Phosphoric acid, solution / Phosphoric acid, liquid / Hydrophosphoric acid / Phosphoric acid ...% / ortho-Phosphoric acid / o-Phosphoric acid / Orthophosphoric acid ... % / Phosphoric acid ... % / phosphoric acid | (CAS-No.) 7664-38-2 | 13.43 | Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402 |

Full text of H-phrases: 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: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

First-aid Measures After Eye Contact: Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: Causes skin irritation. Causes serious eye irritation.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding type of fire.

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Contact with metallic substances may release flammable hydrogen gas.

Reactivity: May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Phosphorous oxide. Explosive hydrogen gas is generated by the action of acid on most metals and may accumulate in metal containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid breathing (vapor, mist, spray). Avoid all contact with skin, eyes, or clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

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Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Absorb spillage to prevent material damage. Liquid spill: neutralize with powdered limestone or sodium bicarbonate. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May be corrosive to metals. In prolonged contact with reactive metals, may release hydrogen gas.

Precautions for Safe Handling: Avoid contact with skin, eyes and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid breathing vapors, mist, spray.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in corrosive resistant container with a resistant inner liner.

Incompatible Materials: Strong bases, strong oxidizers. Metals. May be corrosive to metals. Can react with chemically active metals such as aluminum, copper, magnesium, tin, zinc, etc. to produce flammable hydrogen gas which can form explosive mixtures with air.

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

7.3. Specific End Use(s)

To lower the pH of a nutrient solution

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. 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).

| Phosphoric acid (7664-38-2) | | |
|-----------------------------|--------------------|------------------------|
| USA ACGIH | ACGIH OEL TWA | 1 mg/m ³ |
| USA ACGIH | ACGIH OEL STEL | 3 mg/m ³ |
| USA NIOSH | NIOSH REL (TWA) | 1 mg/m ³ |
| USA NIOSH | NIOSH REL (STEL) | 3 mg/m ³ |
| USA IDLH | IDLH | 1000 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) [1] | 1 mg/m ³ |

8.2. Exposure Controls

Appropriate Engineering Controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles.



Materials for Protective Clothing

: Chemically resistant materials and fabrics.

Hand Protection

: Wear protective gloves.

Eye and Face Protection

: Chemical safety goggles.

Skin and Body Protection

: Wear suitable protective clothing.

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- Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
- Other Information** : When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

| | |
|--|--------------------------|
| Physical State | : Liquid |
| Appearance | : Colorless clear liquid |
| Odor | : None |
| Odor Threshold | : No data available |
| pH | : 1 |
| Evaporation Rate | : No data available |
| Melting Point | : No data available |
| Freezing Point | : No data available |
| Boiling Point | : 100 °C (212 °F) |
| Flash Point | : No data available |
| Auto-ignition Temperature | : No data available |
| Decomposition Temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapor Pressure | : No data available |
| Relative Vapor Density at 20°C | : No data available |
| Relative Density | : 1.07 |
| Solubility | : Soluble. |
| Partition Coefficient: N-Octanol/Water | : No data available |
| Viscosity | : No data available |

9.2. Other Information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible Materials

Strong bases, strong oxidizers. Metals. May be corrosive to metals. Can react with chemically active metals such as aluminum, copper, magnesium, tin, zinc, etc. to produce flammable hydrogen gas which can form explosive mixtures with air.

10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Oxides of phosphorus.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

| Phosphoric acid (7664-38-2) | |
|-----------------------------|--|
| LD50 Oral Rat | 1530 mg/kg |
| LD50 Dermal Rabbit | 2740 mg/kg |
| LC50 Inhalation Rat | > 850 mg/m ³ (Exposure time: 1 h) |

Skin Corrosion/Irritation: Causes skin irritation. (At 19 %. Per Method 16CFR1500.41. Noted in the Federal Register Vol. 38, No. 187, S. 26019 from 1973-09-27)

pH: 1

Serious Eye Damage/Irritation: Causes serious eye irritation. (For solutions of 10 and 17% v/v; J. Am. Coll. Toxicol. 11(6): 724)

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pH: 1

Respiratory or Skin Sensitization: Not classified

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: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Not classified.

| | |
|-----------------------------|-----------|
| Phosphoric acid (7664-38-2) | |
| LC50 Fish 1 | 75.1 mg/l |

12.2. Persistence and Degradability

| | |
|-------------------------------|---|
| FOOP pH Down (Homegrower) | |
| Persistence and Degradability | Inorganic product which cannot be eliminated from water by biological purification processes. |

12.3. Bioaccumulative Potential

| | |
|---------------------------|------------------|
| FOOP pH Down (Homegrower) | |
| Bioaccumulative Potential | Not established. |

12.4. Mobility in Soil

| | |
|---------------------------|------------------------------|
| FOOP pH Down (Homegrower) | |
| Ecology - Soil | Leaches if exposed to water. |

12.5. Other Adverse Effects

Other Adverse Effects : None known.

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Treatment Methods: Neutralize collected waste before discharge.

Sewage Disposal Recommendations: Do not dispose of waste into sewer.

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : PHOSPHORIC ACID SOLUTION

Hazard Class : 8

Identification Number : UN1805

Label Codes : 8

Packing Group : III

ERG Number : 154



14.2. In Accordance with IMDG

Proper Shipping Name : PHOSPHORIC ACID SOLUTION

Hazard Class : 8

Identification Number : UN1805

Packing Group : III

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Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3. In Accordance with IATA

Proper Shipping Name : PHOSPHORIC ACID, SOLUTION
Packing Group : III
Identification Number : UN1805
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

| | |
|--|---|
| FOOP pH Down (Homegrower) | |
| SARA Section 311/312 Hazard Classes | Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation Physical hazard - Corrosive to metals |
| Phosphoric acid (7664-38-2) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| CERCLA RQ | 5000 lb |
| Water (7732-18-5) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |

15.2. US State Regulations

| |
|---|
| Phosphoric acid (7664-38-2) |
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) List |
| U.S. - Massachusetts - Right To Know List |
| U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 05/13/2022
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

GHS Full Text Phrases:

| | |
|---------------------|--|
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Aquatic Acute 3 | Hazardous to the aquatic environment - Acute Hazard Category 3 |
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Met. Corr. 1 | Corrosive to metals Category 1 |
| Skin Corr. 1B | Skin corrosion/irritation Category 1B |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| H290 | May be corrosive to metals |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H402 | Harmful to aquatic life |

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.

SDS US (GHS HazCom)