



Safety Data Sheet
according 1907/2006/EC (REACH), 2015/830/EU

pH⁻ Powder

Date : 01 Janvier 2007

Version No. 5

Review date: 03/01/2022

1 SECTION 1: IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/ UNDERTAKING

Product identifier

- 1.1 A. Product name: pH⁻ Powder
B. CE Number
C. CAS

- 1.2 **Relevant identified uses of the substance or mixture and uses advised against** Relevant identified uses of the substance or mixture:
pH⁻ Powder lowers the pH of the product in hydroponic nutrient solutions.
Uses advised against:

Any use not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet

Supplier identification Terra Aquatica
Address 4, boulevard du Biopole 32500 FLEURANCE
Phone number +33 (0)5 62 06 08 30
E-mail address info@eurohydro.com

1.4 Emergency telephone number

- Medical services/
emergency services 999
Fire and rescue services 999
Police 101
EU Emergency call line 112
Toxicological Information Centre ORFILA (INRS) +33 01 45 41 59 59
Toxicological Information Centre South West +33 05 61 77 74 47

2 SECTION 2 : HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Product definition	Mono-constituent substance
Reg. 1272/2008/CLP	In accordance with Regulation No. 1272/2008 (CLP), the product is considered dangerous. Skin Corr./Irrit. 1B H314
Additional information :	
Hazards for humans	Upon contact with water, it forms phosphoric acid and urea, which can cause severe burns and eye contact.
Environmental hazards	None
Physico-chemical hazards	None
Other hazards	None

Labelling elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



2.2	Signal word	DANGER
	Hazard statements H:	H314 Causes skin burns H318 Causes serious eye damage.
	Precautionary statements P:	Phrases P P101 If you consult a doctor, keep the container or label available P102 Keep out of reach of children P103 Read the label before use P260-a Do not breathe dust P280 Wear protective gloves. Wear eye or face protection. Wear protective clothing. P314 In case of discomfort, consult a doctor.
2.3	Other hazards	None

3 SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Mono-constituent substance

Chemical name	Weight % content (or range)	CAS NUMBER
Urea phosphate	100%	4861-19-2

3.2 Mixtures Name Not applicable

4 SECTION 4 : FIRST AID MEASURES

In general, if in doubt or if symptoms persist, seek medical attention. Do not give anything by mouth to an unconscious person.

4.1 Description of first aid measures

Following eye contact	Immediately flush eyes, including under the eyelids, with plenty of clean, clear water for at least 15 minutes. Check if the victim is wearing contact lenses and if so, remove them. Consult a doctor immediately.
Following skin contact	Rinse the irritated area thoroughly with water for at least 15 minutes. Remove contaminated clothing.

Following ingestion	Consult a doctor immediately. Chemical burns should be treated promptly by a doctor. Rinse the mouth with water. If a person has swallowed this product and is conscious, give small amounts of water to drink. Call a doctor if the adverse health effects persist or worsen. Do not induce vomiting unless directed by medical personnel.
Following inhalation	If inhaled, move to fresh air. Consult a doctor immediately. If it is suspected that fumes are present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.
Self-protection of the first aider	No action should be taken that involves an individual risk or in the absence of appropriate training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It can be dangerous for the person assisting a victim to practice mouth-to-mouth. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Other information	For further details of first aid administration, including but not limited to more serious health effects, the doctor may consult the Toxicological Information Centre, hotline: see section 1.4

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects:

- Eye contact: Causes serious eye damage.
- Inhalation: Possible release of gases, vapours or dust that are very irritating or corrosive to the respiratory system.
- Skin contact: Causes severe burns.
- Ingestion : May cause burns to the mouth, throat and stomach.

Signs/symptoms of overexposure:

- Eye contact: Adverse symptoms may include the following: pain, tearing, redness
- Inhalation: No specific data
- Skin contact: Pain or irritation, redness, blistering may occur
- Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Note to the attending physician
- Symptomatic treatment required. Immediately contact a specialist for the treatment of poisonings if large quantities have been ingested or inhaled.
- Specific treatments
- No special treatment.

5 SECTION 5 : FIREFIGHTING MEASURES

Extinguishing media	The product is not flammable. Fire hazard low due to the flammability characteristics of the product under normal storage, handling and use conditions. Suitable extinguishing media: In the event of a nearby fire or continued combustion, caused by improper handling, storage or use, the following extinguishing media may be used: carbon dioxide (CO ₂), foam, chemical powders, and in the event of a widespread fire, also water spray. Inappropriate extinguishing media: In case of fire, do not use: Water jet
5.1	

Special hazards arising from the substance or mixture

Hazards due to the substance or mixture:
The product does not present a specific risk of fire or explosion.
Risk related to thermal decomposition products:

5.2

A fire in the surrounding area will often produce thick black smoke. Exposure to compositional products may pose health risks. Do not breathe dust, vapours or fumes released by the combustion of the products.

Advice for firefighters

Protective actions to be taken when fighting fires

Quickly isolate the site by evacuating all persons from the area near the incident in case of fire. Do not take any action involving a personal risk or in the absence of adequate training. Keep containers away from fire if it can be done without risk. Use water or water spray to keep containers exposed to fire cool.

5.3

Appropriate protective equipment

The product is not combustible. In the event of a fire in the surrounding area, appropriate extinguishing media and protective equipment may be used for the other materials present (full protective clothing and personal respiratory equipment), in accordance with EN469 for a basic level of protection against chemical incidents. Have a minimum of emergency facilities or intervention elements (fire blankets, medicine kit, etc.) in accordance with Directive 89/654/EC.

Other information

Additional provisions:

Respond in accordance with the Internal Emergency Plan and the Fact Sheets on Accident and Other Emergency Response. Remove all sources of ignition. In case of fire, if possible refrigerate containers and storage tanks for products that may ignite and explode as a result of high temperatures. Avoid spilling products used to extinguish the fire in the aquatic environment.

5.4

6 SECTION 6 : ACCIDENTAL RELEASE MESURES

6.1 Personal precautions, protective equipment and emergency procedures

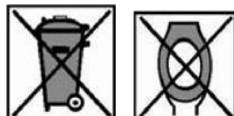
For non-emergency personnel

No action should be taken that involves an individual risk or in the absence of appropriate training. Evacuate the area. Prevent access to persons not required and not wearing protective clothing. DO NOT TOUCH or walk in spilled material. Ensure adequate ventilation. Wear appropriate respiratory protection when the ventilation system is inadequate. Wear protective equipment.

For emergency responders

If specific clothing is required to handle the spill, refer to Section 8 for appropriate and inappropriate materials. See also the information contained in "For personnel other than response personnel"

Environmental precautions



6.2

Avoid contamination of soil, sewers, surface water and groundwater. If this happens, inform the competent authorities.

Methods and material for containment and cleaning up

6.3

For containment:

Sewer coverage

For cleaning up:

Small accidental spill:

Keep containers away from the accidental spill area. Vacuum with a HEPA filter vacuum cleaner or sweep up spilled material with a broom and place in a properly labelled waste container. Dispose by an authorized waste collection company. The contamination-free product can be used for its intended application.

Large accidental spill:

Immediately contact emergency personnel. Keep containers away from the accidental spill area. Approach the fumes in the same direction as the wind. Block any possible entry into sewers, watercourses, cellars or confined areas. Avoid the formation of dust. Do not sweep dry. Vacuum with equipment equipped with a HEPA filter and place it in a properly labelled waste container. Disposal by an authorized waste collection company. Note: See section 1 for emergency contact and see section 13 for waste disposal.

Other information:

Do not put the spilled product in contact with combustible or incompatible materials. Cleaning personnel must wear equipment to protect skin and eyes and to protect themselves from vapours

Reference to other sections

Collect the remains in an identified container: see point 13 for disposal.

6.4

Personal protective equipment: see section 8

Withdrawal considerations: see section 13.

See section 1 for emergency contact information.

7 SECTION 7 : HANDLING AND STORAGE

Precautions for safe handling

7.1

Wear appropriate personal protective equipment (see Section 8). Do not put in contact with eyes, skin or clothing. Do not ingest. If during normal use the substance presents a respiratory hazard, adequate ventilation or the use of a respirator is mandatory. Keep in the original container or in another approved substitute container made of a compatible material and kept hermetically sealed when not in use. Empty containers retain product residues and can be dangerous. Do not reuse the containers.

Advice on professional hygiene in general:

It is prohibited to eat, drink or smoke in areas where this product is handled, stored or used. It is recommended that staff wash their hands and face before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering a food court. See also section 8 for more information on hygiene measures.

Conditions for safe storage, including any incompatibilities

7.2

Store in accordance with local regulations. Store in the original container away from direct sunlight in a dry, cool and well-ventilated place away from incompatible materials (see section 10). Keep under lock and key. Keep container tightly closed when not in use. Containers that have been opened must be carefully closed again and kept in an upright position to prevent leaks. Do not store in unlabelled containers. Use an appropriate container to avoid contamination of the surrounding environment. Surround storage facilities with containment dykes to prevent soil and water pollution in the event of a spill.

Specific end use(s)

7.3

No specific end uses.

Good practices: keep in closed containers. Close containers before and after each use to avoid sources of moisture or heat. Store in areas with waterproof pavement.

8 SECTION 8 : EXHIBITION CONTROLS/INDIVIDUAL PROTECTION

Control parameters

8.1

Occupational exposure limits:

No known exposure limit values.

DNEL/DMEL

Product/component name	Type	Exposure	Value	Population	Effects
Urea phosphate	DNEL	Long term Inhalation	2.92mg/m ³	Operators	Systemic

8.2 Exposure controls	
Appropriate engineering controls	Provide adequate air exchange and/or ventilation in the workshops. Consult a doctor if necessary. Wear suitable gloves and eye/face protection. Wear a respirator with a dust filter. Avoid contact with skin, eyes and clothing. If user handling causes dust, fumes, gases, vapours or mist, use enclosed enclosures, source exhaust ventilation, or other integrated automatic control systems to keep the technician's exposure threshold to airborne contaminants below recommended or legal limits.
Individual protection measures, such as personal protective equipment	Hygiene measures: Wash hands, forearms and face thoroughly after handling chemicals, before eating, smoking and using the toilet, and at the end of the workday. It is recommended to use appropriate techniques to remove potentially contaminated clothing. Wash contaminated clothing before reuse. A washing facility or water must be available for cleaning the eyes and skin. Use individual protections placed on the market in accordance with the provisions of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016. Personal protective equipment must be adapted to the risk, kept clean and properly maintained in accordance with the provisions of the Labour Code.
Eye/face protection	Use eye protection in accordance with an approved standard whenever a risk assessment indicates that it is necessary to avoid exposure to liquid splashes, fine particles, gases or dust. Recommended: CEN tight-fitting waterproof glasses: EN166
Skin protection	The use of impermeable and chemical-resistant gloves that meet an approved standard is always mandatory when handling chemicals if a risk assessment indicates it. > 8 hours (time before piercing): Gloves: It is recommended to wear protective gloves thicker than 0.35mm when using this product for normal use.
Respiratory protection	When room ventilation is insufficient, wear respiratory protective equipment. Recommended: The P2 filter (EN 143)
Body protection	Personal protective equipment for the body should be chosen according to the task to be performed and the risks involved, and it is recommended to have it validated by a specialist before handling the product.
Environmental exposure controls	It is important to test emissions from ventilation systems or manufacturing equipment to ensure that they comply with the requirements of environmental protection legislation. In some cases, it will be necessary to equip the manufacturing equipment with a gas scrubber or filter or to technically modify it in order to reduce emissions to acceptable levels.

9 SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Physical state: pH Down Sec is in crystalline (solid) powder form Color: White
Odour	No odor
pH	2.7 - 2.8[Conc. (% weight / weight): 0.5 g/l]

Melting point	>200°C
Freezing point	Not determined
Initial boiling point and boiling range	>200°C
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Non inflammable
Upper/lower flammability or explosive limits	Not determined
Vapour pressure	< 0,1 hPa
Vapour density	Not determined
Relative density	1,77 @ 20 °C
Solubility(ies) 20°C	> 100 g/l @ 20 °C Soluble in the following substances: cold water
Partition coefficient: n-octanol/water	-1,73 @ 20 °C
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
Viscosity	Not determined
Explosive properties	None
Oxidising properties	None
Refraction index	Not determined
Rotary power	Not determined

9.2

Other information

No other information

10 SECTION 10 : STABILITY AND REACTIVITY

10.1	Reactivity	No specific reactivity test data are available for this product or its components
10.2	Chemical stability	Dry pH- Powder is stable at room temperature in closed packages and under normal storage and handling conditions.
10.3	Possibility of hazardous reactions	No risk of dangerous reactions under normal use and storage conditions.
10.4	Conditions to avoid	Avoid any contamination, including contamination by metals, dust or organic substances.
10.5	Incompatible materials	No specific data.
10.6	Hazardous decomposition products	Under normal storage and use conditions, no hazardous decomposition products should occur.

11 SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

a) acute toxicity;	a) Acute toxicity: DL50/oral/rat = 2600mg/kg.
(b) skin corrosion/irritation;	
(c) serious eye damage/irritation;	423 Acute oral toxicity - Acute toxicity class method

(d) respiratory or skin sensitisation;	Conclusion/Summary: Non-toxic.
(e) germ cell mutagenicity;	b) Irritation and corrosion: Causes burns
(f) carcinogenicity;	c) Causes serious eye damage
(g) reproductive toxicity;	d) Possible irritation of the respiratory system.
(h) STOT-single exposure;	(e) NO mutagenic effect
(i) STOT-repeated exposure;	(f) NO carcinogenic effect
(j) aspiration hazard	(g) No known significant effects or critical hazards
	(h) None
	(i) None
	(j) Possible release of gases, vapours or dust that are very irritating or corrosive to the respiratory system.
Symptoms related to the physical, chemical and toxicological characteristics	Inhalation, ingestion : No known symptoms Skin contact : Pain or irritation redness blistering may occur Eye contact : Pain and tearing redness
Delayed and immediate effects as well as chronic effects from short- and long-term exposure	Health effects are considered unlikely if the product is used as recommended
Interactive effects	Data not known
Absence of specific data	No data available
Mixtures	No data available
Mixture versus substance information	No known adverse effects or symptoms resulting from exposure to the mixture or its components.
Conclusion	Non toxic

12 SECTION 12 : ECOLOGICAL INFORMATION

12.1	Toxicity	No known significant effects or critical hazards.
12.2	Persistence and degradability	Easily biodegradable by plants and soil. The product does not show any bioaccumulation phenomena.
12.3	Bioaccumulative potential	It cannot be expected to bioaccumulate in the environment through food chains.
12.4	Mobility in soil	Not available. Low expected mobility in the ground, according to the log Koc.
12.5	Results of PBT and vPvB assessment	Not Applicable
12.6	Other adverse effects	Not Applicable No known significant effects or critical hazards.


13 SECTION 13 : DISPOSAL CONSIDERATIONS

	Waste treatment methods	Product : It is recommended to avoid or reduce waste generation as much as possible. Do not dispose of significant quantities of residual product waste through sewers. Treat them in an appropriate wastewater treatment plant. Dispose of surplus and non-recyclable products by an authorized waste collection company. The disposal of this product, solutions and by-products must always comply with legal requirements for environmental protection and waste disposal as well as the requirements of all local authorities.
13.1		Packaging : It is recommended to avoid or reduce waste generation as much as possible. Recycle

packaging waste. Consider incineration or landfilling only if recycling is not possible.

Waste codes / waste designations according to LoW: 06 01 06*
other acids

14 SECTION 14 : TRANSPORT INFORMATION

14.1	UN number	1759
14.2	UN proper shipping name	CORROSIVE SOLID, N.O.S. (Urea phosphate)
14.3	Transport hazard class(es)	8 
	ADR IMDG OACI/IATA	ADR/RID Hazard identification number: 80 Tunnel code (E) IMDG : Marine pollutant : No Emergency schedules (EmS) : F-A, S-B
14.4	Packing group	II
14.5	Environmental hazards	No
14.6	Special precautions for user	Transportation with local users: Ensure that people transporting the product are aware of the measures to be taken in the event of an accident or accidental spill.
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Non applicable
14.8	IMSBC	Bulk Cargo shipping name : FERTILIZERS WITHOUT NITRATES Class 8: corrosive product Group C No MCH

15 SECTION 15 :REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture		
15.1		
	Reg. 1272/2008/CE	The product does not contain substances that can be classified as carcinogenic. 1 or 2 according to Reg.1272/2008/EC and subsequent updates.
	Reg. 830/2015/CE (REACH)	Not applicable
	Special hazards	To our knowledge, no other national or governmental regulations apply.
	Règlement UE (CE) n° 1907/2006 (REACH)	Annex XIV: List of substances subject to authorisation: none of the components are listed
15.2	Chemical safety assessment	Finished

	Abbreviations and acronyms:	ETA = Acute Toxicity Estimation CLP = Regulation 1272/2008/EC on classification, labelling and packaging of substances and mixtures DNEL = Derived no-effect dose DMEL = Derived no-effect dose EUH = Specific hazard statement CLP CPSE = Predicted no-effect concentration RRN = REACH registration number PTB = Persistent, Toxic and Bioaccumulative tPtB = Very persistent and very bioaccumulative bw = Body mass
16.1		
	Key literature references and sources for data	Regulation (EC) 1907/2006 of the European Parliament (REACH) Regulation (EC) 1272/2008 of the European Parliament (CLP) Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP) Regulation (EC) 453/2010 of the European Parliament Regulation (EC) 286/2011 of the European Parliament (II Atp. CLP)
16.2		The Merck index. Ed. 10 Handling and chemical safety Niosh - Register of toxic effects of chemical substances INRS - Toxicological Data Sheet Patty - Industrial hygiene and toxicology N.I. Sax - Dangerous properties of Industrial Materials - 7 Ed., 1989 ECHA website EU REACH IUCLID5 CSR. National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances. IHS, 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada. Règlement (CE) n ° 1272/2008 Annexe VI.
16.3	Indication of changes:	Date of revision: 03/01/2022 Previous version date: 15/02/2020 Version :5 Modification: Section 1.3, Company name Modifications in section 5.3
16.4	Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]: Relevant H-statements (number and full text): Full text of the classifications[CLP/S GH] Full text of the short R-phrases Full text of classifications[DSD/DPD] Note	Classification Skin Corr./Irrit. 1B H314 Justification Calculation method H314 Causes severe skin burns and eye damage. Skin Corr./Irrit. 1B, H314: DERMAL CORROSION/CUTANEOUS IRRITATION - Category 1B R34- Causes burns. C - Corrosive This Safety Data Sheet complies with the requirements laid down in Reg. 830/2015/EU. It does not exempt the user from knowing and applying all the documents that govern his

activity. The user will take under his responsibility the precautions related to the specific use of the product. All the regulatory requirements mentioned are simply intended to help the recipient to assume his responsibilities. This list should not be considered exhaustive. This data sheet supplements the technical instructions for use but does not replace them. The information in this safety data sheet has been compiled by Terra Aquatica on the basis of its current knowledge (safety data sheet for the active ingredients compiled by the manufacturer and other bibliographical data) as of the date indicated. It is given in good faith. In addition, the user's attention is drawn to the possible risks involved when a product is used for purposes other than those for which it was created. The recipient must ensure that he is not liable for anything other than what is stated in the texts other than those mentioned.

The information describes the safety aspects of the product. It is not intended to guarantee specific properties.

It is the responsibility of our customers to observe the applicable regulations.