

Safety data sheet

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020

Creation date : 01/06/16
Revision date : 27/03/23
Version: 7



1 SECTION 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

A.Trade name pH -

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

Relevant identified uses of the substance or mixture pH - lowers pH in plants 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

Company's name Terra Aquatica
Address 4 Boulevard du Biopole, 32500 Fleurance
Phone number +33 (0)5 62 06 08 30
E-mail address info@terraaquatica.com

1.4 Emergency telephone number

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

2 SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Reg. 1272/2008/CLP In accordance with Regulation No. 1272/2008 (CLP), the product is considered hazardous.
Additional information None
Hazards for humans Causes severe skin burns and eye damage.
Environmental risks None
Physico-chemical hazards None
Other hazards None

2.2 Label elements

In accordance with Reg. 1272/2008/CLP and its adaptations

Danger pictogram



Hazard Word DANGER

Hazardous substances to be indicated on the label Nitric Acid

Hazard statement

H314 Causes severe skin burns and eye damage.

Warning statement P101, P102, P103, P280

For full text of abbreviations, P-phrases, see section 16

Additional information on hazards (EU)

2.3 Other hazards None

3 SECTION 3 Composition/information on ingredients

3.1 Substances Non applicable

3.2 Mixtures

Description pH - is an aqueous mixture of nitric acid, phosphoric acid and citric acid.

Chemical Name Citric acid

Concentration 8~9%

CAS NO. 5949-29-1

Chemical Name Phosphoric acid

Concentration 10%

CAS NO. 7664-38-2

Chemical Name Nitric acid

Concentration <3%

CAS NO. 7697-37-2

Additional data for identification of hazardous substances Non applicable

4 SECTION 4 First aid measures

No known incidents of damage to persons who have used this product.

However, in case of 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

In case of eye contact

Immediately flush eyes, including under the eyelids, with plenty of clean, clear water for at least 15 minutes, keeping eyelids open. Check if the victim wears contact lenses and, if so, remove them. Seek medical attention immediately.

In case of skin contact

Rinse thoroughly with water for at least 15 minutes. Remove contaminated clothing. If the skin is red or puffy, or if an irritation persists, consult a doctor.

In case of eye contact

Do not give anything by mouth to an unconscious or convulsing person. If a person has swallowed this product and is conscious, give small amounts of water to drink to dilute the product.

In case of inhalation

Under normal conditions of use, inhalation is unlikely. If inhaled, move to fresh air and if necessary, assist breathing. In case of breathing difficulties, consult a doctor as soon as possible.

Protection of first aid providers

Depending on the first aid context, wear appropriate protective equipment including a mask or filtered respirator. Always wear protective gloves and a resuscitation mask in case of artificial respiration. Wash hands thoroughly after first aid. If your clothing is contaminated with a chemical substance during first aid administration, change them.

Other data

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 Causes severe skin burns and eye damage.

4.3 **Indication of any immediate medical attention and special treatment needed** No known data

5 SECTION 5 Firefighting measures

5.1 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 for a surrounding fire
Inappropriate extinguishing media

Use dry chemical, carbon dioxide, water spray (mist) or foam.

In case of fire, do not use: Water jet

5.2 Special hazards arising from the substance or mixture

Given its flammability characteristics, the product does not present a specific risk of fire or explosion under normal storage, handling and use conditions.

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 products.

5.3 Advice for firefighters

Protective actions to be taken when fighting fires

Quickly isolate the area by evacuating all persons from the area near the incident in the event of a fire. Do not take any action involving personal risk or in the absence of adequate training. Keep containers away from fire if it can be done without risk. Use water or spray to keep containers exposed to fire cool. Beware of water flows resulting from firefighting. Do not discharge fire extinguishing material into drains or sewers.

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.

5.4 Other data

Non applicable

6 SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Ensure proper ventilation. Wear gloves and safety glasses to avoid stains or risk of splashing.

6.1.2 For emergency responders

Workers will be equipped with personal protective equipment appropriate to the possible hazards. (See section 8)

6.2 Environmental precautions

The product is biodegradable. However, avoid contamination of sewers, surface water and groundwater. If this happens, inform the competent authorities.

6.3 Methods and material for containment and cleaning up

6.3.1 Containment method

Sewer coverage

6.3.2	Cleaning procedure	Collect the spilled product by mechanical means and remove any residues by water jets. Provide adequate ventilation at the location of the spill. The disposal of the contaminated material must be carried out in accordance with the provisions of point 13.
	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. Small amounts of product can be mopped with inert, non-combustible materials such as sand or soil. These materials must then be placed in appropriate containers. Do not dispose of in gutters or sewers. Do not discard any residue.
6.4	Reference to other sections	Collect the remains in an identified container: see point 13 for disposal. Personal protective equipment: see section 8 Withdrawal considerations: see section 13. See section 1 for emergency contact information.

7 SECTION 7 Handling and storage

7.1	Precautions for safe handling	Avoid formation of suspended particles and dispersion of the product in the air. Provide adequate ventilation in areas where suspended particles develop. Keep away from flames and sparks. Do not smoke. Keep away from heat and other sources of fire. Do not eat, drink or smoke in work areas. Wash hands after each use.
7.2	Conditions for safe storage, including any incompatibilities	Provide adequate local ventilation or exhaust. Store in a cool, dry place. Keep container tightly closed. Ideally the storage temperature should be between 5 and 30°C. Close containers before and after each use to avoid sources of moisture or heat. Keep containers upright to avoid the risk of leakage. If possible store in areas with impermeable pavement.
7.3	Specific end use(s)	No specific end uses. Good practice: keep in closed and labeled containers. Close containers before and after each use to avoid sources of moisture or heat. Store in areas with impervious pavement.

8 SECTION 8 Exposure controls/personal protection

8.1	Control parameters	Not applicable Follow good industrial hygiene practices.
8.2	Exposure controls	
8.2.1	Appropriate engineering controls	No particular control

8.2.2	Individual protection measures, such as personal protective equipment	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.
a)	Eye/face protection	It is recommended to wear protective glasses in accordance with the NF EN166 standard before any handling of products in order to avoid the risks of projection.
b)	Skin protection	Hands: Wear suitable protective gloves in case of prolonged or repeated contact with the product to avoid stains. Use suitable chemical-resistant protective gloves in accordance with NF EN374.
c)	Respiratory protection	Ensure adequate ventilation, especially in enclosed areas. Respiratory protection device not required.
	Body protection	Wear appropriate protective clothing. After contact with the product, all soiled body parts should be washed.
8.3	Environmental exposure controls	No data available.

9 SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Physical state	All pH - compounds are in aqueous solution.
b)	Colour	Yellowish
c)	Odour	No odor
d)	Melting point/freezing point	-8°C
e)	Boiling point or initial boiling point and boiling range	104°C
f)	Flammability	Non inflammable
g)	Lower and upper explosion limit	Not applicable
h)	Flash point	Not determined
i)	Auto-ignition temperature	Not determined
j)	Decomposition temperature	Not determined
k)	pH	1
l)	Kinematic viscosity	Room temperature 0.01 cm ² /s
m)	Solubility	Entirely soluble
n)	Partition coefficient n-octanol/water (log value)	Not determined
o)	Vapour pressure	2.3 Kpa (17.5mm Hg)
p)	Density and/or relative density	1.11
q)	Relative vapour density	Not determined
r)	Particle characteristics	Not determined

9.2 Other information

9.2.1	Information with regard to physical hazard classes	None
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10 SECTION 10 Stability and reactivity

10.1	Reactivity	Stable. No particular risk of reaction with other materials under normal conditions of use.
10.2	Chemical stability	pH - is stable at room temperature in closed packages and under normal storage and handling conditions. No hazardous polymerization can be produced by any of these components


10.3	Possibility of hazardous reactions	No risk of dangerous reactions under normal use and storage conditions
10.4	Conditions to avoid	No special conditions to avoid.
10.5	Incompatible materials	No specific data.
10.6	Hazardous decomposition products	Not determined
11	SECTION 11 Toxicological information	
11.1	Information on hazard classes as defined in Regulation (EC) No 1272/2008	
a)	Acute toxicity Result/ Dose/ Species/ Exposure	No known toxicological effects CSD 50 oral/ >58027.1mg/kg/ Rat/ Not applicable
b)	Skin corrosion/irritation	Causes severe skin burns.
c)	Serious eye damage/irritation	Causes severe eye damage.
d)	Respiratory or skin sensitisation	Not applicable
e)	Germ cell mutagenicity	Not applicable
f)	Carcinogenicity	Not applicable
g)	Reproductive toxicity	Not applicable
h)	STOT-single exposure	Not applicable
i)	STOT-repeated exposure	Not applicable
j)	Aspiration hazard	
11.1.5	Information on likely routes of exposure	
	Ingestion	Unlikely route of exposure under normal conditions of use. No known significant effects or critical hazards.
	Inhalation	Unlikely route of exposure under normal conditions of use. No known significant effects or critical hazards.
	Skin exposure Eye Exposure	May cause skin irritation. Causes serious eye damage.
11.1.6	Symptoms related to the physical, chemical and toxicological characteristics	No known effect
11.1.7	Delayed and immediate effects as well as chronic effects from short and long-term exposure	No known effect
11.1.8	Interactive effects	No data available
11.1.9	Absence of specific data	No data available
11.1.10	Mixtures	No data available
11.1.11	Mixture versus substance information	Mixture not containing substances subject to registration. No known adverse effects or symptoms resulting from exposure to the mixture or its components.
11.2	Information on other hazards	
11.2.1	Endocrine disrupting properties	No data available
12	SECTION 12 Ecological information	
12.1	Toxicity Product / Ingredient (Component) Method /Result / Species / Exposure	Not known risks. Citric acid LC50 seawater/ 160000µg / Crustaceans: Carcinus maenas adult/ 48H
12.2	Persistence and degradability	No data available to date to the best of our knowledge The product does not show any bioaccumulation phenomena.
12.3	Bioaccumulative potential	The product is not expected to cause any effect on the environment if used properly according to the recommendations.

12.4	Mobility in soil	This product can be carried by groundwater seepage or surface runoff because it is completely soluble.
12.5	Results of PBT and vPvB assessment	No data available to date to the best of our knowledge
12.6	Endocrine disrupting properties	No data available to date to the best of our knowledge
12.7	Other adverse effects	No data available to date to the best of our knowledge

13 SECTION 13 Disposal considerations

13.1	Waste treatment methods	<p>Do not discharge into sewers or waterways.</p> <p>Waste: Waste management is carried out without endangering human health and without harming the environment, including without creating a risk to water, air, soil, fauna and flora.</p> <p>Recycle or dispose of in accordance with current legislation, preferably by an approved collector or company.</p> <p>Disposal of the product/packaging: it is prohibited to discharge it into sewers or waterways. Residues and empty containers must be handled and disposed of in accordance with the relevant local/national legislation in force.</p> <p>Follow the provisions of Directive 2008/98/EC on waste management. Recover the product as much as possible. Follow local legislation.</p> <p>Waste List Code 06 10 99 Wastes not otherwise specified 15 01 02 Plastic wastes (container)</p>
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14 SECTION 14 Transport information

14.1	UN number or ID number	UN3264
14.2	UN proper shipping name	INORGANIC LIQUID CORROSIVE, ACIDIC, N.O.S. (Nitric acid, phosphoric acid)
14.3	Transport hazard class(es)	<p>8 </p> <p>ADR/RID Tunnel code (E) IMDG Marine pollutant : No Emergency schedules (EmS) : F-A, S-B</p>
14.4	Packing group	II
14.5	Environmental hazards	Non-hazardous transport
14.6	Special precautions for user	Transport with local purposes: always transport in correct and safe packaging. Make sure that the persons transporting the product know the measures to be taken in case of accident or accidental spillage
14.7	Maritime transport in bulk according to IMO instruments	Non-hazardous transport

15 SECTION 15 Regulatory information

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	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. 1272/2008/EC	

	Reg. 830/2015/EC (REACH)	Not applicable
	Special risks	None to our knowledge.
15.2	Chemical safety assessment	Evaluation not carried out
16	SECTION 16 Other information	
16.1	Abbreviations and acronyms	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>CAS NUMBER: Chemical Abstract Service number</p> <p>EC50: Concentration that gives effect to 50% of the test population.</p> <p>EC NUMBER: Identification number in ESIS (European archive of existing substances)</p> <p>CLP: Regulation EC 1272/2008</p> <p>DNEL: Calculated No Effect Level</p> <p>IATA DGR: International Air Transport Association Dangerous Goods Regulations</p> <p>IMDG: International Maritime Dangerous Goods Code</p> <p>IMO: International Maritime Organization</p> <p>LC50: Lethal concentration 50</p> <p>LD50: Lethal Dose 50%.</p> <p>OEL: Occupational Exposure Level</p> <p>PBT: Persistent, Bioaccumulative and Toxic according to REACH</p> <p>PEC: Predicted Environmental Concentration</p> <p>PEL: Predicted Exposure Level</p> <p>PNEC: Predicted No Effect Concentration</p> <p>REACH: Regulation EC 1907/2006</p> <p>vPvB: Very Persistent and Bioaccumulative according to REACH</p> <p>P101, P102, P103, P280</p> <p>If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Wear protective gloves/protective clothing/eye protection/face protection.</p>
	Warning statement	
16.2	Bibliographical references	<p>Regulation (EC) 1907/2006 of the European Parliament (REACH)</p> <p>Regulation (EC) 1272/2008 of the European Parliament (CLP)</p> <p>Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)</p> <p>Regulation (EC) 453/2010 of the European Parliament</p> <p>Regulation (EC) 286/2011 of the European Parliament (II Atp. CLP)</p> <p>INRS - Toxicological Data Sheet</p> <p>Patty - Industrial hygiene and toxicology</p> <p>ECHA website</p>
16.3	Changes from the previous version	
	New version date	27/03/2023
	Previous version date	13/04/2022
	Version	7
	Modified elements	Update According to Regulation (EU) 2020/878

16.4 Note

The indicated mixture does not require an SDS according to REACH requirements. Sheet established for information purposes.

This safety data sheet complies with the requirements established by Commission Regulation (EU) 2020/878 of 18 June 2020. It does not exempt the user from knowing and applying all the documents governing his activity. The user is responsible for taking precautions related to the specific use of the product. All regulatory requirements listed are intended simply to assist the recipient in fulfilling their responsibilities. This list should not be considered exhaustive. This sheet supplements the technical instructions for use but does not replace them. This safety data sheet has been compiled by Terra Aquatica on the basis of its current knowledge (safety data sheets of the active ingredients compiled by the manufacturer and other literature). The information contained herein is based on our knowledge of the product at the date indicated. It is given in good faith. 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 information describes the safety aspects of the product. They are not intended to guarantee specific properties.

The recipient must ensure that he is not responsible for anything other than the mentioned texts. It is the responsibility of the users to observe the applicable regulations.