

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) – Annex II:

Requirements for the compilation of safety data sheets

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

1.1. Product identification

NAME OF THE PRODUCT: PH REDUCER

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

Product use: pH reducer and descaler of pipes and irrigation systems.

Uses advised against: Not known.

1.3. Details of the supplier of the safety data sheet

Company's name: Nortem Chem S.L.

Address: C/ Alexander Humboldt №12. El Puerto de Santa María, 11500, Cádiz (Spain).

Number phone: 0034 856 925 095

E-mail: elpuerto@nortemchem.com

1.4. Emergency telephone number

Emergency telephone number: +34 915 620 420 (Instituto Nacional Toxicología, Madrid).

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Hazard type: Lesion or serious eye irritation.

Hazard category: Category 2

Hazard statements: H319 Causes serious eye irritation

* Classification according to the Regulation (EC) nº 1272/2008 and registered dossiers in European Chemicals Agency: http://echa.europa.eu

* Check the full text of the classification, including the precautionary statements in SECTION 16.

2.2. Label elements

Labeling in accordance with Regulation (EC) No. 1272/2008 [CLP].

HAZARD PICTOGRAM:

SIGNAL WORD: Warning





HAZARD STATEMENTS: H319 Causes serious eye irritation

PRECAUTIONARY STATEMENTS:

Prevention:

P102 Keep out of reach of children.

P264 Wash hands thoroughly after handling.

P280 Wear eye protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

2.3. Other hazards

PBT: this substance is not PBT / vPvB

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Substance	CAS nº	EC nº	Concentration (%)	Hazard classification
				Severe eye damage or
Citric acid				irritation.
REACH registration No.:	77-92-9	201-069-1	30 - 50%	Category 2
01-2119457026-42				H319 Causes serious eye
				irritation.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid

General advice: Show safety data sheet to the doctor in attendance. Immediate medical attention is not required.

IN CASE OF CONTACT WITH EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Drink plenty of water. Do not induce vomiting. Consult a doctor if it is necessary.



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

If in eyes: May cause irritation and pain may occur.

* Delayed effects: No further relevant information available.

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

Immediate / special treatment: Rinse eyes with plenty of water. No special equipment is required.

Medical tracing of delayed effects: Not required.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: water, water spray, dry powder, foam, carbon dioxide (CO2).

Extinguishing media which must not be used: None.

5.2. Special hazards arising from the substance or mixture

Specific hazards: During combustion in the fire there are no toxic vapors derived from the substance.

Specific hazards during firefighting: There are no specific hazards arising from the substance. Do not use a water jet as it can dispense and spread the fire.

5.3. Advice for firefighters

Protection of first-aider: Use personal protective equipment.

Specific methods: Standard procedure for chemical fires. Use extinction measures that are appropriate to the circumstances of the premises and its surroundings.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. Wear eye protection. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions: prevent further leakage or spillage if safe to do so. No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Spill can be cleaned manually. After cleaning, flush away traces with water.

6.4. Reference to other sections

See sections 8 and 13 of this FDS.



SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice for safe handling: Wear individual protective glasses.

Advice to avoid the creation of new risks for health and the environment: Not required. There are no special risks to health and the environment.

Advice on general hygiene measures: Wash hands after each use. Avoid contact with the eyes.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/ Storage conditions: Keep tightly closed in a dry and cool place.

Incompatible products: Strong oxidizing agents, strong bases.

7.3. Specific end use(s)

Specific use: pH reducer and descaler of pipes and irrigation systems.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits: Not required.

8.2. Exposure controls

Individual protection measures:

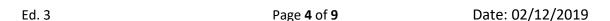
Respiratory protection: Not necessary.

Eye protection: Eyes protection.

Hands/ Skin protection: Not necessary.

Environmental exposure controls:

No special environmental precautions are required.





SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Colourless aqueous solution
Odor	Ordorless
Olfatory thresholod	N/A*
рН	1.3 (25º C)
Melting point / freezing point	-
Initial boiling point / boiling range	102 °C/ 102-108 °C
Flash point	N/A
Evaporation Rate	It does not evaporate
Flammability (solid, gas)	Non flammable
Upper / lower flammability or explosive limits	N/A
Vapor pressure	-
Vapour density	-
Relative density	1.119 g/cm ³ (25 °C)
Solubility(ies)	Completely miscible
Partition coefficient: n-octanol/water	-
Auto-ignition temperature	N/A
Decomposition temperature	It does not decompose
Viscosity	6.5 cP (25 °C, 50 w% in aqueous solution)
Explosive properties	It does not explode
Oxidising properties	No oxidizing

^{*} N/A: Not apply

9.2. Other information

Not required.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No further relevant information available.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

No further relevant information available.

10.5. Incompatible materials

Possible reactions with strong bases, oxidizing agents.

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10.6. Hazardous decomposition products

No dangerous decomposition products known in case of fire. The decomposition products derived from the container are typical of plastic materials.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

The data of the mixture is not available.

Hazard class that applies to this product: Lesion or serious eye irritation.

Citric acid:

Acute toxicity: Oral (mouse): LD50 = 5400 mg/Kg

Oral (rat): DL50 = 11700 mg/Kg

Oral (rabbit): DL50 = 700 mg/Kg

Dermal (rat): DL50 > 2000 mg/Kg

Inhalation: There are no data available, so it is not considered relevant for

classification purposes.

Skin irritation: Not irritating.

Respiratory or skin sensitisation: Study scientifically not necessary.

Germ cell mutagenicity: It is not considered mutagenic.

Carcinogenicity: It is not considered carcinogenic.

Reproductive toxicity: It is not considered toxic for reproduction.

STOT-single exposure: Not required.

STOT-repeated exposure: Not required.

Aspiration hazard: Not required.

Likely routes of exposure: Eye exposure (splashes of product in the eyes or contact with hands / skin).

Symptoms related to the physical, chemical and toxicological characteristics: May cause irritation and pain may occur in eyes. It does not irritate the skin

Delayed and immediate effects as well as chronic effects from short and long-term exposure: Not required.

Interactive effects: Not required.



SECTION 12: ECOLOGICAL INFORMATION

Citric acid:

12.1. Toxicity

DIN 38412 Part 15 (DIN en ISO 7346): Toxicity to fish= 440 - 760 mg/l

DIN 38412 Part 5: Toxicity for bacteria > 10000 mg/l

12.2. Persistence and degradability

Chemical oxygen demand (COD) = $750 \pm 50 \text{ mg O}_2/\text{g}$

Biochemical Oxygen Demand in 5 days (BOD5) = $625 \pm 50 \text{ mg } O_2/g$

97% Biodegradable.

12.3. Bioaccumulative potential.

No bioaccumulation expected.

12.4. Mobility in soil

Totally soluble

12.5. Results of PBT and vPvB assessment

This product is not considered persistent, bioaccumulative or toxic (PBT).

This product is not considered to be very persistent or very bioaccumulative (vPvB).

12.6. Other adverse effects

Maintaining the right management conditions should not expect ecological problems.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste treatment of the product: No special treatment.

Treatment of packaging waste: Empty contaminated containers appropriately. They can be recycled as plastics after proper cleaning (rinse the container with water).

* Without special precautions.



SECTION 14: TRANSPORT INFORMATION

Non-dangerous goods for ADR, RID, ADN, IMDG and ICAO according to United Nations Standard Regulations.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not required.

14.3. Transport hazard class(es)

Not required.

14.4. Packing group

Not required.

14.5. Environmental hazards

Not required.

14.6. Special precautions for user

None.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not required.

SECTION 15: REGULATORY INFORMATION

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

- This Safety Data Sheet complies with Commission REGULATION (EC) 2015/830 amending REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- The product placed in the market complies with the 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 CLP.
- REGULATION (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents.
- Real Decreto 770/1999, de 7 de mayo, por el que se aprueba la Reglamentación técnico-sanitaria para la elaboración, circulación y comercio de detergentes y limpiadores.

15.2. Chemical safety assessment

Not carried out.



SECTION 16: OTHER INFORMATION

The information provided in this safety data sheet is correct to the best of our knowledge at the time of its review. The information given only describes the products with respect to safety provisions and should not be considered as a warranty or specification of quality, nor constitute a legal relationship. The information contained in this safety data sheet applies only to the specific material indicated and may not be valid if used in combination with other products or in any process, unless otherwise specified in the text.

Hazard class	Severe eye injury or irritation
Category of danger	Category 2
Hazard statements	H319 Causes serious eye irritation.
Word of warning	Attention
Precautionary statements	Prevention: - P102 Keep out of reach of children. - P264 Wash the hands thoroughly after handling. - P280 Wear eye protection. Intervention: - P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rising. - P337 + P313 If eye irritation persists: Get medical advice/attention.

