Chemical Safety Information Sheet

PH REDUCER – pH-

Version 1.3 Date of revision: (10/02/2015) Data of printing: 02/07/2019

1 - IDENTIFICATION	
Product name (Commercial name):	**PH Reducer**
Main recommended uses for the substance or mixture:	Reduces the pH value of pool water
Company name:	CAMP QUÍMICA INDÚSTRIA LTDA
Address:	AV. DR. JOSÉ BONIFACIO COUTINHO NOGUEIRA, 150 – CAMPINAS/SP
Contact telefone:	(19) 3199.4191
Emergence contact telefone:	0800 000 1074
Fax:	---
Email:	sac@campquimica.com.br

2.1. Product hazard classification:

Acute toxicity - Oral: Category 4.
Acute toxicity – Dermal: Category 5.
Corrosion/irritation of the skin: Category 1.
Severe eye injury/eye irritation: Category 1.

2.2. Appropriate labelling elements:

Icon		
Word of warning	Attention	Danger

pH Reducer

Version 1.3 Date of revision (13/02/2015) Data of printing: 02/07/2019

Danger phrases:

H302 – Harmful when ingested.
H313 – May be harmful in contact with the skin.
H314 – Causes severe burns to the skin and damage to the eyes.
H318 – Causes severe eye damage.

Precautionary phrases:

P260 - Do not inhale dust / smoke / gas / fog / vapour / aerosols.

P280 - Wear protective gloves / protective clothing / eye protection / facial protection.

P305 + P351 + P 338 – IN CASE OF EYES: Rinse carefully with water for several minutes. In the case of wearing contact lenses, remove them if it is easy. Keep rinsing.

P303 + P361 + P353 – IN CONTACT WITH THE SKIN (OR HAIR): Remove immediately all contaminated clothes. Rinse the skin with water/ take a shower.

1. Composition and information on the ingredients

Chemical Nature: This product is a mixture.

Ingredients or impurities that contribute to the danger:

Chemical Name	Concentration	CAS Number
Hydrochloric acid	10%	7647-01-0

2. First Aid Measures

First Aid Measures: Take the injured person to an airy place. Remove contaminated clothes. Wash the affected parts of the body with plenty of water and soap. If the injured person is unconscious and does not breathe anymore, practice oxygenation or artificial breathing. To refer to the nearest medical department by carrying this card.

inhalation: remove the person to an airy place. If you have difficulty breathing, consult a doctor immediately. If you're not breathing, do artificial breathing. Use an intermediary (type Ambu®) to perform the procedure.

Contact with the skin: immediately wash the affected area with plenty of water and soap. Remove contaminated clothes. If any effects/symptoms occur, consult a doctor. Wash contaminated clothes before reusing and discard contaminated shoes.

Eye contact: wash them immediately with plenty of water for as long as possible. Keep the eyelids open to ensure proper rinse of the eyes. Consult a doctor if irritation develops.
Ingestão: não provocar vômito, entretanto é possível que o mesmo ocorra espontaneamente não devendo ser evitado. Deitar o paciente de lado para evitar que aspire resíduos. Procurar um médico imediatamente. ATENÇÃO: nunca dê algo por via oral para uma pessoa inconsciente.

What actions should be avoided: Do not apply mouth-to-mouth breathing if the patient has ingested the product. Use an intermediary to perform the procedure.

Protection for first aid providers: avoid oral, skin, eye and inhalation contact with the product during the process.

Note to the doctor: there is no specific antidote. In case of recent ingestion, gastric emptying procedures, such as gastric washing, may be performed. Symptomatic treatment should include supporting measures such as correction of hydroelectrolytic and metabolic disorders, as well as respiratory assistance. Monitoring of liver and renal functions should beined. In case of eye contact, proceed to washing with physiological serum and referral for ophthalmological evaluation.

3. Fire Control Measures

Appropriate extinguishing means: water fog, foam, chemical dust and carbon dioxide.

Not recommended extinguisher: Avoid using water jets directly on the product.

Specific hazards and special firefighting methods: evacuate the area and fight the fire at a safe distance. Use dicks to contain the water used in battle. Position your back to the wind. Use fog-shaped water to cool equipment exposed near the fire.

Protection of persons involved in firefighting: autonomous breathing equipment and appropriate clothing to fight fire.

Specific dangers of combustion of the chemical: in thermal decomposition can generate hydrogen cyanide, hydrogen sulfide, sulphur dioxide and chloromethyletesMedidas de Controle para Derramamento ou Vazamento

Personal Precautions: Personal precautions: use waterproof cloth, protective glasses, rubber boots and nitrile rubber or PVC gloves. Respiratory protection should be carried out depending on the concentrations present in the environment or the extent of the spill/wash. In this case, you should opt for semi-facial or whole facial masks with a replaceable filter or air inhalers (e.g. autonomous masks).

Removal of ignition sources: disconnect electricity and turn off spark generating sources. Remove from the site any material that may cause fire principle (e.g. diesel oil).

Dust control: does not apply because it is a liquid.

Prevention of inhalation and contact with skin, mucous membranes and eyes: use the clothes and accessories described above in the Personal Precautions Item.

Precautions for the environment: avoid contamination of water courses by blocking the entrance of rainwater galleries (boca de lobo). Prevent residues from the spilled product from reaching water collections.

Cleaning methods: remove any source of fire or heat. Keep the curious away and signal the danger to the traffic. Avoid contact with skin and clothing. Paved floor: absorb the product with serrating or sand, collect the material with the help of a stick and place it in a sealed and properly identified container. Soil: remove the layers of contaminated soil until it reaches the uncontaminated ground, collect this material and place it in a sealed container

and properly identified. Contact the registrar. Water bodies: immediately stop collecting for human or animal consumption, contact the nearest environmental body and the company's emergency center, as the measures to be taken depend on the proportions of the accident, the characteristics of the water body in question and the quantity of the product involved. The spilled product should no longer be used. Consult the registrar by telephone for your return and destination.

Secondary hazard prevention: void contaminating streams, lakes, water sources, wells, rainwater and effluents.

4. Handling and Storage

4.1 Handling:

Technical measures: the product pH Reducer, adjusts the water parameters providing a swimming pool with water pleasant for use because it does not leave red eyes, skin or hair dry and guarantees the purity of the water by the maximum efficiency of free chlorine. Check the label before using. Exclusive use in swimming pools. Use EPI as described in Item 8.

Prevention of employee exposure: use EPI as described in Item 8. Do not eat, drink or smoke while handling the product. When opening the packaging do so in order to avoid spill. Do not use damaged and/or defective personal protective equipment and application equipment. Do not untouch pins, holes, pipes and valves with the mouth. Do not handle and/or load damaged packaging. Do not transport the product together with food, medicines, feedingstuffs, animals and people.

Precautions for safe handling: use EPI as described in Item 8. Whenever possible keep the product in packages and in closed environments.

Guidelines for safe handling: use EPI as described in Item 8. Handle the product with appropriate local drainage or in well-ventilated area. In case of symptoms of poisoning, immediately stop work and proceed as described in Item 4 of this sheet.

4.2 Hygiene measures:

Suitable: take a shower and change clothes immediately after using the product. Wash contaminated clothes separately, avoiding contact with other personal utensils. Wash your hands before eating or smoking. Do not handle this material near food, feed or drinking water.

Inappropriate: wash contaminated clothing together with other pieces of clothing or personal utensils.

4.3 Storage:

Technical measures

Suitable: Keep the product and any residue in its original packaging properly closed.

Inappropriate: direct exposure to sunlight.

Storage conditions

Suitable: keep the product in its original packaging, always closed. The site should be exclusive to toxic products and should be isolated from food, beverages, feedingstuffs or other materials. A construção deve ser de alvenaria ou de material não combustível. Lock the site, preventing access by people not

authorized, mainly children. There should always be suitable packaging available, for packaging broken packages or for collecting leaked products. In the case of warehouses, the instructions contained in NBR 9843 of the Brazilian Association of Technical Standards - ABNT should be followed. Please note the provisions contained in the state and municipal legislation.

To avoid: wet places, with heat sources, contact of acids or bases.Incompatible products and materials: Do not store with food, drinks, including those intended for animals.

Safe materials for packaging

Recommended: polyethylene containers.

Inadequate: metal containers.

5. Exposure Control and Individual Protection

5.1 **Engineering control measures:** provide adequate ventilation. The operator should always use respiratory protection equipment even when provided with good ventilation. Keep the packaging firmly closed..

5.2 **Specific control parameters::**

Occupational exposure limits:

Common name	exposure limits	Type	Effect	References
Muriatic acid	Unestablished	TLV-TWA	---	ACGIH 2013
	7 mg/m³	REL-TWA	Irritating to the nose, throat and larynx; cough, burns in the skin and eye	NIOSH
		PEL-TWA		OSHA

Biological indicators:

Common name	Biological Limit	Type	Notes	Time from collection	References
Muriatic acid	Unestablished	BEI	---	---	ACGIH 2013

5.3 **Personal protective equipment:**

Respiratory protection: use a combined filter mask.

Hand protection: use rubber waterproof gloves.

Eye protection: wear safety glasses for chemicals.

Protection for skin and body: use waterproof clothes and boots.

Special Precautions: Maintain EPIs properly clean and in appropriate conditions of use, performing periodic inspections and possible maintenance and/or replacement of damaged equipment.

6. Propriedades Físicas e Químicas

Physical condition: liquid. Color: yellow. Odor: characteristic. pH: < 1.
Melting point/freezing point: not available.
Initial boiling point and boiling temperature range: not available.
Brightness point: not available.
Flammability: not available.
Evaporation rate: not available.
Lower/upper limit of flammability or explosiveness: not available.
Steam pressure: not available.
Steam density: not available.
Density: 1.16 g/cm3.
Solubility/Miscibility: Soluble in water.
Partition coefficient n-octanol/water: not available.
Self-ignition temperature: not available.
Decomposition temperature: not available.
Viscosity: not available.
Corrosion: not available.
Surface voltage: not available.

7. Stability and Reactivity

Chemical stability: product is stable at room temperature and air, under normal conditions of use and storage.

Reactivity: no data are available on the product's reactivity.

Possibility of dangerous reactions: contact with metals will generate hydrogen.

Conditions to be avoided: avoid contact with heat, high temperatures, sources of ignition and exposure to direct sunlight.

Incompatible materials or substances: avoid contact with strong bases, strong oxidants, acetic dihydrates, amines, sulfuric and perchloric acids.

Dangerous breakdown products: in thermal breakdown can generate hydrogen cyanide, hydrogen sulfide, sulphur dioxide and chloromethyletes

8. Toxicological Information

8.1 Acute toxicity::

Muriic acid:

DL_{50} Oral (bunnies): not available. DL_{50}
Dérmica (bunnies): not available. CL_{50}
Inalação (rats) (1h): 2124 ppm.

8.2 Local Effects:

Skin irritability: the product is corrosive to the skin.

Irritability of the eye causes burns to the eyes.

Skin sensitization: no data available.

Respiratory sensitization: no data available.

8.3 Chronic toxicity:

Mutagenicity in germ cells: no data available.

Carcinogenicity: The ingredients of the product are known to be non-cancerogenic.

Reproductive toxicity: no data available.

Specific target organ toxicity - Single exposure: no data available.

Specific target organ toxicity - Repeated exposure: no data available.

Danger of suction: no data available.

Main Symptoms: ingestion of the product can cause burning of the mouth, throat and gastrointestinal tract, abdominal pain, nausea, vomiting, diarrhea and ulcers. Exposure to vapors can cause irritation of the airways. In contact with the skin or with the eyes can cause irritation, redness, swelling, rashes and burns.

9. Informações Ecológicas

Environmental, behavioral and product impacts:

Persistence/Degradability: no data available.

Ecotoxicity: no data available.

Mobility on the ground: no data available.

Bioaccumulation: no data available.

10. Final Destination Considerations

Recommended methods for final destination:

Product: the expired product must be disposed of appropriately.

Product residues: Residues of the product should not be unduely discarded after use. Keep any expired residues in their original packaging properly sealed.

Used packaging: do not reuse empty packaging; do not burn or bury packages. Recycling can be applied provided that the relevant legislation is complied with.

11. Information about Transport

National and international regulations:

Ground Transport: Resolution No. 5232 of 14 December 2016, Ministry of Transport.

ONU Number: 1760
Appropriate name for shipment**: CORROSIVE LIQUID, ACID, N.E. (Hydrochloric Acid)**
Risk class: 8
Risk number: 80
Packaging Group: II

MARITIM TRANSPORT: IMDG (International Maritime Dangerous Goods Code)

Número ONU: 1760
Appropriate name for shipment**: CORROSIVE LIQUID, ACID, N.E. (Hydrochloric Acid)**
Risk class: 8
Risk number: 80
Packaging Group: II

Aerial TRANSPORT: IATA

Número ONU: 1760
Appropriate name for shipment**: CORROSIVE LIQUID, ACID, N.E. (Hydrochloric Acid)**
Risk class: 8
Risk number: 80
Packaging Group: II

12. Information about Regulations

Regulations:

ABNT NBR – 14725
Resolução ANTT N° 5232, de 14 de dezembro de 2016, Ministério dos Transportes.
IMDG CODE

14- OUTRAS INFORMAÇÕES

Important information, but not specifically described in the previous sections.

This FISPQ was developed on the basis of current knowledge on the proper handling of the product and under normal conditions of use, according to the application specified on the packaging. Any other form of use of the product involving its combination with other materials, in addition to different uses than those indicated, are the responsibility of the user. Please note that the handling of any chemical substance requires prior knowledge of its dangers by the user. In the workplace it is up to the company that uses the product to promote the training of its employees on the possible risks arising from exposure to the chemical.

FISPQ prepared in December 2020.