

**SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY****1.1 Product identifier**

Product name: RIZOSPRAY WATER CONDITIONER

Product Identifier: -

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

Relevant identified uses: According to the technical data sheet of the product.

**1.3 Details of the supplier of the Safety Data Sheet****RIZOBACTER ARGENTINA S.A.**Avda. Presidente Dr. Arturo Frondizi Nº 1150, Parque Industrial,  
(B2702HDA) Pergamino, Buenos Aires, Argentina.

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**1.4 Emergency telephone number**Emergency phone (24 hours)      CIQUIME 0800 222 2933 (Argentina only)  
+54 11 4552 8747 (other countries)**SECTION 2 – HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****Classification according to the Globally Harmonized System**

Substances and mixtures corrosive to metals (Category 1)

Skin irritation (Category 2) - Serious eye damage (Category 1)

Short-term (acute) aquatic hazard (Category 3)

Long-term (chronic) aquatic hazard (Category 3)

**2.2 Label elements****Pictogram:****Signal word:**

DANGER

**Hazard statements:**

H290 - May be corrosive to metals.

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H402 + H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements:**

P234 - Keep only in original packaging.

P264 - Wash thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear protective gloves.

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.

P332 + P313 - IF SKIN IRRITATION OCCURS: Get medical advice or attention.

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

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P390 - Absorb spillage to prevent material-damage.

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

P501 - Dispose of contents and/or container in accordance with national and international regulations.

### 2.3 Other hazards

None.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Substance

Does not apply.

### 3.2 Mixtures

IDENTIFICATION NAME	CAS No.	Weight %	CLASSIFICATION
Mixture of phosphonates in aqueous solution with pH regulators	-	100	Proprietary

## SECTION 4 - FIRST AID MEASURES

### 4.1 Description of first aid measures

General advice:	Avoid exposure to the product and take appropriate protective measures. Consult your doctor with the safety data sheet.
Inhalation:	Move victim to an area with clean air. Keep her at rest. If not breathing, apply artificial respiration. Call the doctor.
Skin contact:	Immediately wash skin with plenty of soap and water for at least 15 minutes.
Eye contact:	Immediately flush eyes with water for at least 15 minutes, keeping eyelids open. If you have contact lenses, remove them after 5 minutes and continue rinsing eyes. Consult the doctor.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth with water. If the victim is unconscious, call a doctor immediately, and turn her on her side to reduce the risk of aspiration. Do not give the victim anything to drink or eat.

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

Inhalation: may cause nausea, dizziness and headache.

Skin contact: may cause irritation.

Eye contact: may cause irritation.

Ingestion: may cause nausea, vomiting, and stomach upset.

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

Medical advice: Perform symptomatic treatment. For more information, consult a Poison Center.

## SECTION 5 – FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Use dry chemical, alcohol-resistant foam, sand or carbon dioxide (CO<sub>2</sub>). Some foams can react with the product. DO NOT USE water jets as it may spread fire.

### 5.2 Special hazards arising from the substance or mixture

The liquid will not ignite easily, but it can decompose and generate corrosive and/or toxic vapors.

### 5.3 Advice for firefighters

#### 5.3.1 Firefighting instructions

Spray containers and/or tanks with water to keep them cool.

Continue cooling with water after fire is out.

Prevent water used for fire control from entering watercourses, drains or springs.

#### 5.3.2 Protective clothing

In case of spill with fire, avoid contact with the product. If contact is likely, wear a fully chemical resistant firefighting suit and self-contained breathing apparatus. If firefighting gear is not available, wear chemical-resistant clothing and self-contained breathing apparatus and fight fire from a remote location.

In the event of a non-fire spill, or in the post-fire cleanup phase, wear chemical resistant clothing that is specifically recommended by the manufacturer.

#### 5.3.3 Hazardous combustion products

In case of fire, it may release irritating and/or toxic fumes and gases, such as carbon monoxide, nitrogen oxides, phosphorous oxides, and other substances derived from incomplete combustion.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Evacuate personnel to a ventilated area.

#### 6.1.2 For emergency responders

Eliminate all sources of ignition (no smoking, flares, sparks or open flames in danger area). Evacuate people to a ventilated area. Do not touch contaminated objects or areas or walk on the spilled material. Use self-contained breathing apparatus and skin and eye protection. Wear impervious protective gloves. Ventilate immediately, especially in low areas where vapors may accumulate. Do not allow reuse of spilled product.

### 6.2 Environmental precautions

Contain spilled liquid with a dam or barrier. Prevent entry into navigable waterways, sewers, basements or uncontrolled confined areas.

### 6.3 Methods and material for containment and cleaning up

Contain and recover the liquid when possible. Collect the liquid product with sand, vermiculite, earth, or inert absorbent material and then completely clean the affected area. Dispose of the waste properly.

### 6.4 Reference to other sections

See Section 8 - Exposure Controls and Personal Protection, and Section 13 – Disposal considerations.

## SECTION 7 – HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Do not eat, drink or smoke during handling.

Avoid contact with eyes, skin and clothing. Wash arms, hands, and nails after handling. Facilitate access to safety showers and eyewash emergency. Avoid inhalation of the product. Use PPE. Keep container closed.

Use with adequate ventilation. Handle containers carefully.

### 7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:

Store in a clean, dry, well-ventilated area. Protect from sunlight. Periodically check the containers to warn of losses and breakages. Store at temperatures between 15 and 25 °C, in rooms with a waterproof and resistant to corrosion floor. Store in its original container with the label

visible. Keep out of the reach of inexperienced persons. Do not store together with food, fodder, seeds or utensils to handle them. Protect from frost. Do not store at temperatures below 2°C.

Packaging materials:

Supplied by the manufacturer.

Incompatibilities:

Keep away from Oxidizing and non-oxidizing mineral acids, organic acids, aldehydes, dithiocarbamates, organic halogens, isocyanates, metals, peroxides, epoxides, strong oxidizing and reducing agents.

### 7.3 Specific end use(s)

According to the technical data sheet of the product.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

TLV-TWA (ACGIH):	N/D
TLV-STEL (ACGIH):	N/D
PEL (OSHA):	N/D
IDLH (NIOSH):	N/D
PNEC (WATER):	N/D
PNEC (SEA WATER):	N/D
PNEC-STP:	N/D

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Keep workplace ventilated. The normal routine ventilation is usually adequate. Local hoods should be used for operations that produce or release large amounts of product. In low or confined areas should be provided mechanical ventilation. Provide showers and eyewash stations.

#### 8.2.2. Individual protection measures, such as personal protective equipment

Eye and face protection:	When necessary, wear chemical splash-proof safety glasses (complying with EN 166).
Skin protection:	When necessary, wear impermeable protective PVC, nitrile or butyl gloves (complying with standards EN 374), clothes and safety footwear resistant to chemicals.
Respiratory protection:	When necessary, wear an organic gas or steam (A) respirator. Special attention to oxygen levels in the air should be paid. If large releases occur, wear self-contained breathing apparatus (SCBA).

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Appearance:	Liquid.
Color:	Amber.
Odour:	Characteristic.
Odour threshold:	N/D
pH:	6,1
Melting point:	N/D
Boiling point:	100°C (212°F)

Flammability:	The product is not flammable.
Flash point:	N/D
Evaporation rate:	N/D
Auto-ignition temperature:	N/D
Explosive limits:	N/D
Decomposition temperature:	N/D
Vapour pressure (20°C):	N/D
Vapour density (air=1):	N/D
Relative density (20°C):	1,371 g/cm <sup>3</sup>
Solubility (20°C):	Soluble in water.
Henry constant (20°C):	N/D
Partition coefficient (logKo/w):	N/D
Viscosity (20°C):	N/D
Explosive properties:	Not explosive. This study is not required because in the molecule no chemical groups are associated with explosive properties.
Oxidizing properties:	Este estudio no es necesario porque la sustancia, por su estructura química, no puede reaccionar de forma exotérmica con materias combustibles.

## 9.2 Other information

Other properties: None.

## SECTION 10 – STABILITY AND REACTIVITY

### 10.1. Reactivity

It is not expected that product reactions or decomposition may occur under normal storage conditions. It does not contain organic peroxides. It may be corrosive to metals. It does not react with water.

### 10.2. Chemical stability

The product is chemically stable and it does not require stabilizers.

### 10.3. Possibility of hazardous reactions

No hazardous polymerization is expected.

### 10.4. Conditions to avoid

Avoid high temperatures.

### 10.5. Incompatible materials

Oxidizing and non-oxidizing mineral acids, organic acids, aldehydes, dithiocarbamates, organic halogens, isocyanates, metals, peroxides, epoxides, strong oxidizing and reducing agents.

### 10.6. Hazardous decomposition products

When heated, it may release toxic and irritating vapors. In case of fire, see section 5.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity:

There is no information about the toxicity of the product, but acute toxicity estimations are presented.

LD50 oral (rat): > 5000 mg/kg

LD50 der (rabbit): > 5000 mg/kg  
LC50 inh. (rat, 4 hs.): > 10,42 mg/l  
Skin irr. (rabbit): mild irritant  
Eye irr. (rabbit): moderate irritant  
Skin sens (Guinea pig, estim.): not sensitizing  
Resp. sens (Guinea pig, estim.): not sensitizing

**Carcinogenicity, mutagenicity, reproductive toxicity, and other effects:**

Carcinogenicity: No information is available on any component of this product, present at levels greater than or equal to 0.1%, that is classified as probable, possible or confirmed human carcinogen by IARC (International Agency for Research on Cancer).

Mutagenicity: There are no components of this product, present at a concentration greater than or equal to 0.1%, that classify as mutagens according to the GHS.

Tox. Repr. : There are no components of this product, present at a concentration greater than or equal to 0.1%, that classify as hazardous for reproduction according to the GHS.

Teratogenicity: There are no components of this product, present at a concentration greater than or equal to 0.1%, that classify as a teratogen.

STOT-SE: There are no components of this product, present at a concentration greater than or equal to 1%, that they classify as toxic to target organs according to the GHS.

STOT-RE: There are no components of this product, present at a concentration greater than or equal to 1%, that they classify as toxic to target organs according to the GHS.

Aspiration: There are no components of this product, present at a concentration greater than or equal to 10%, that classify as toxic by aspiration according to the GHS.

**Routes of exposure:** Inhalation, skin and eye contact.

Inhalation: may cause nausea, dizziness and headache.

Skin contact: may cause irritation.

Eye contact: may cause irritation.

Ingestion: may cause nausea, vomiting, and stomach upset.

## SECTION 12 – ECOLOGICAL INFORMATION

### 12.1. Toxicity

There is no information about the ecotoxicity of the product, but acute toxicity estimations are presented.

ATE-EC50 (fish, calc., 96 h): > 100 mg/l

ATE-EC50 (inv., calc., 48 h): > 100 mg/l

ATE-EC50 (algas, calc., 72 h): 10 - 100 mg/l

ATE-NOEC (fish, calc., 14 d): 0,1 - 1,0 mg/l

ATE-NOEC (inv., calc., 14 d): > 1 mg/l

### 12.2. Persistence and degradability

BIODEGRADABILITY (estimated): Based on calculations based on composition, the product is expected to be partially biodegradable.

### 12.3. Bioaccumulative potential

Log Ko/w (OCDE 107 o 117): N/D

BIOCONCENTRATION FACTOR - BCF (OCDE 305): N/D. Based on estimates, significant bioaccumulation in organisms is not expected.

### 12.4. Mobility in soil

HENRY CONSTANT (20°C): N/D

LogKoc: N/D

DISTRIBUTION (%):

### 12.5. Results of PBT and vPvB assessment

This product does not meet the PBT criteria of Annex XIII of REACH. This product does not meet the vPvB

criteria in Annex XIII of REACH.

### 12.6. Other adverse effects

AOX and metal containing: Does not contain organic halogens nor metals.

## SECTION 13 – DISPOSAL CONSIDERATIONS

Do not reuse the container. Perform a triple wash. Recycle the container or dispose of it in a landfill or by other procedures approved by the authorities. Do not bury or incinerate the container.

## SECTION 14 – TRANSPORT INFORMATION

### 14.1 Transport by land

Proper Shipping Name:	CORROSIVE LIQUID, N.O.S. (contains phosphonic acids)
UN/ID Number:	1760
Hazard class:	8
Packing group:	III
Hazard identification number:	80
Excepted and limited quantity:	1000 / 5 L
Special provisions:	223 - 274



### 14.2 Air transport (ICAO/IATA)

Proper Shipping Name:	CORROSIVE LIQUID, N.O.S. (contains phosphonic acids)
UN/ID Number:	1760
Hazard class:	8
Packing group:	III
PAX and Cargo Packing instructions:	Y841; 1L / 852; 5L
Cargo Packing instructions:	856; 60L
ERC:	8L



### 14.3 Sea transport (IMO)

#### IMDG Code

Proper Shipping Name:	CORROSIVE LIQUID, N.O.S. (contains phosphonic acids)
UN/ID N°:	1760
Hazard class:	8
Packing group:	III
EMS:	F-A, S-B
Stowage and manipulation:	Category B; SW2
Segregation:	–
Marine pollutant:	NO
Proper Shipping Name:	UN1760; CORROSIVE LIQUID, N.O.S. (contains phosphonic acids); Class 8; PG III



## SECTION 15 – REGULATORY INFORMATION

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

Not dangerous for the ozone layer.

Volatile organic compounds (VOC's): N/D

**15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**SECTION 16 – OTHER INFORMATION****16.1 Abbreviations and acronyms**

ACGIH: American Conference of Governmental Industrial Hygienists.  
 ATE: Acute toxicity estimate.  
 CAS: Chemical Abstracts Service.  
 EC: effect concentration.  
 EC50: Average Effective Concentration.  
 EMS: Emergency management sheet.  
 ERC: Emergency response card.  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals.  
 IARC: International Agency for Research on Cancer.  
 IATA: International Air Transport Association.  
 ICAO: International Civil Aviation Organization.  
 IDLH: Immediately dangerous to life or health  
 IMDG: International Maritime Dangerous Goods.  
 IMO: International Maritime Organization.  
 LC: Lethal concentration.  
 LD: Lethal dose.  
 Log Ko/w: octanol-water partition coefficient.  
 Log Koc: organic carbon to water partition coefficient.  
 N/A: not applicable.  
 N/D: no data available.  
 NFPA: National Fire Protection Association.  
 NIOSH: National Institute for Occupational Safety and Health  
 NOEC: No observed effect concentration.  
 OECD: Organisation for Economic Co-operation and Development.  
 OSHA: Occupational Safety and Health Administration.  
 PAX: Passengers.  
 PBT: persistent, bioaccumulative or toxic criteria.  
 PEL: Permissible Exposure Limit.  
 PMCC: Pensky Martens closed cup  
 PNEC: Predicted No Effect Concentration  
 PNEC-STP: Predicted No Effect Concentration – sewage treatment plant.  
 PPE: Personal protection equipment.  
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals - Europa.  
 REL: Recommended Exposure Limit.  
 STEL: Short Term Exposure.

STOT-RE: Specific target organ toxicity - repeated exposure  
 STOT-SE: Specific target organ toxicity - single exposure  
 TLV: Threshold Limit Value.  
 UN: United Nations.  
 vPvB: very persistent or very bioaccumulative.

**DENOMINATION OF GHS CLASSES**

Aer.: aerosols  
 Oxid. Gas: oxidizing gas  
 Compressed gas: compressed gas  
 Dissolved gas: dissolved gas  
 Flam. Gas: flammable gas  
 Liquefied Refr. Gas: refrigerated liquefied gas  
 Liquefied gas: liquefied gas  
 Oxid. Liquid: oxidizing liquid  
 Flam. Liquid: flammable liquid  
 Met. Corr.: corrosive for metals  
 Org. Perox.: organic peroxide  
 Water React. Flam. Gas: substance reactive with water, which emits flammable gases  
 Oxid. Solid: oxidizing solid  
 Flam. Solid: flammable solid  
 Asp Tox.: aspiration toxicity  
 Carc.: carcinogenicity  
 Skin Corr. / Irrit.: Corrosion / skin irritation  
 Eye Damage / Irrit.: Serious eye damage / eye irritation  
 Lac.: toxic for reproduction - lactation  
 Muta.: mutagenicity  
 Repr.: toxic for reproduction  
 Skin Sens.: skin sensitizer  
 Resp. Sens.: respiratory sensitizer  
 STOT Rep. Exp.: Specific target organ toxicity - repeated exposure  
 STOT Single Exp.: Specific target organ toxicity - single exposure  
 Acute Tox.: Acute toxicity  
 Aquatic Acute: Hazardous to the aquatic environment - acute danger  
 Aquatic Chronic: Dangerous for the aquatic environment - chronic danger  
 Ozo.: Dangerous for the ozone layer.

**16.2 Key literature references and sources for data**

Globally Harmonized System of Classification and Labelling of Chemicals, fifth revised edition, 2013 (GHS 2013 - 'ST / SG / AC 10/30 / Rev.5'). The fifth edition is taken into consideration because it is the one valid for



Argentina according to Resolution 801/2015 of the SRT. In any case, the information is contrasted with Revision 7 ('ST / SG / AC 10/30 / Rev.7') and clarification is made if required.

Agreement on Transport of Dangerous Products within the MERCOSUR, MERCOSUR\CMC\DEC N° 2/94.

European Agreement on the International Carriage of Dangerous Goods by Road (ADR 2023) and amendments.

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2023) and amendments.

International Maritime Dangerous Goods Code (IMDG 2020 - Amendment 41-22), International Maritime Organization (IMO).

Regulations of the International Air Transport Association (IATA 64 ed., 2023) on the transport of dangerous goods by air.

### 16.3 Classification and procedure used to derive the classification for mixtures

The classification was performed based on chemical analogues and product information compiled by CIQUIME.

SECTION 2: classification by hazard extrapolation and based on product data.

SECTION 9: product data.

SECTION 11 and 12: calculation of acute toxicity estimation according to GHS, product data and bibliographic data.

Change's control: v.1 - Adaptation to the GHS.

The partial or total modification of this file is not allowed, including the renown of the product, without the authorization of CIQUIME S.R.L.

### 16.4 Disclaimer

The information in this document refers to the product, and not to another product or process that involves it. This document provides health and safety information. The information is correct and complete according to our knowledge. It is provided in good faith, but without guarantee. Use the product according to the recommendations for use. If you use this product, you should be informed of the recommended safety precautions and should have access to this information. For any other use, evaluate exposure and implement appropriate handling measures and training programs to ensure safe operations in the workplace.

It remains your responsibility that this information is appropriate and complete for the use of the product.

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