

RIZOWET

SAFETY DATA SHEET

Revision date: may, 2018

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product identifier

Product name: RIZOWET Product Identifier:

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

Relevant identified uses: Coadjuvant - Humectant

1.3 Details of the supplier of the Safety Data Sheet

RIZOBACTER ARGENTINA S.A.

Avda. Presidente. Dr. Arturo Frondizi № 1150 Parque Industrial, (2700) Pergamino Buenos Aires, Argentina.

P: +54 2477 40 9428

1.4 Emergency telephone number

Emergency phone (24 hours) CIQUIME 0800 222 2933 (Argentina only)

+54 11 4611 2007 (other countries)

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to the Globally Harmonized System

Acute toxicity, inhalation (Category 4)

Eye irritation (Category 2A)

Short-term (acute) aquatic hazard (Category 2)

Long-term (chronic) aquatic hazard (Category 2)

2.2 Label elements

Pictogram:





Signal word: WARNING

Hazard statements:

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H401 + H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements:

P261 - Avoid breathing mist, vapours and spray.

P264 - Wash thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

Version: 2 Emission date: may, 2018

Replaces: 1

Created: CIQUIME Revised: RIZOBACTER ARGENTINA S.A.

RIZOWET SAFETY DATA SHEET VERSION: 2
PAGE 2 OF 9

present and easy to do. Continue rinsing.

P337 + P313 - IF EYE IRRITATION PERSISTS: Get medical advice/attention.

P391 - Collect spillage.

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

2.3 Other hazards

WHO CATEGORY IV - Product normally not dangerous.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance

Does not apply.

3.2 Mixtures

IDENTIFICATION NAME	CAS No.	Weight %	CLASSIFICATION
Polyalkyleneoxide modified heptamethyltrisiloxane	27306-78-1	-	Acute Tox. 4; Eye Irrit. 2A; Aquatic Chronic 2

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Avoid exposure to the product, taking appropriate protective measures. Get

medical advice.

Inhalation: For those providing assistance, avoid exposure. Use proper protection if

necessary. Move victim and get fresh air. Keep calm. If not breathing, give

artificial respiration. Get medical advice.

Skin contact: Wash immediately after contact with soap and water for at least 15

minutes. Remove contaminated clothing and wash before reuse.

Eye contact: Immediately flush with water for at least 15 minutes, holding eyelids apart

to ensure that all eye and lid tissues rinsed. Washing eyes within several seconds is essential to achieve maximum effectiveness. If you have contact lenses, remove them after the first 5 minutes, then continue rinsing eye.

Get medical advice.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything

by mouth to an unconscious person. Get medical advice.

If vomiting occurs spontaneously, place victim on side to reduce the risk of

aspiration.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: harmful, may cause irritation of the respiratory tract, nausea and headache.

Skin contact: frequent or prolonged contact may cause skin irritation.

Eye contact: Irritating to the eyes.

Ingestion: may cause irritation of the mouth, pharynx, esophagus and stomach. Harmful if ingested.

4.3 Indication of any immediate medical attention and special treatment needed

Medical advice: Provide symptomatic treatment. For more information, contact a Poison Control Center.

RIZOWET SAFETY DATA SHEET VERSION: 2
PAGE 3 OF 9

SECTION 5 – FIREFIGHTING MEASURES

5.1 Extinguishing media

Use dry chemical, foam, sand or CO₂. Use the product according to surrounding materials. DO NOT USE straight streams.

5.2 Special hazards arising from the substance or mixture

NOT FLAMMABLE. The liquid will not readily ignite.

After evaporation of the product, the residue can burn.

5.3 Advice for firefighters

5.3.1 Firefighting instructions

Spray-water the packaging to avoid ignition if exposed to excessive heat or fire. Withdraw packaging if not reached by the flames and can be done without risk.

Spray containers with water to keep them cool. Cool containers with flooding quantities of water until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor.

Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

5.3.2 Protective clothing

Use self-contained breathing apparatus. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations.

For large spills wear protective clothing against chemicals, which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

5.3.3 Hazardous combustion products

In case of fire may release irritating fumes and gases and/or toxic gases, such as carbon monoxide, silicon oxides, formaldehyde and other substances derived from incomplete combustion. This product contains methylpolysiloxanes that can generate formaldehyde at approximately 300 °F (150 °C) and above, in atmospheres containing oxygen. Formaldehyde is a skin and respiratory sensitizer, irritant to the eyes and throat, acute toxic and potential cancer hazard.

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 ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to a ventilated area. Ventilate immediately, especially in low areas where vapours may accumulate. Do not allow reuse of spilled product.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Collect the product through sand, vermiculite, or inert absorbent and completely clean or wash the contaminated area.

RIZOWET SAFETY DATA SHEET VERSION: 2
PAGE 4 OF 9

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. The use of gloves is recommended.

Facilitate access to safety showers and eyewash emergency.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a clean, dry, well-ventilated area. Keep containers closed. Store in

the original container with label visible. Keep out of the reach of children

and untrained people. Do not store with food and fodder.

Packaging materials: Supplied by the manufacturer.

Incompatibilities: Keep away from strong oxidizing agents.

7.3 Specific end use(s)

Coadjuvant - Humectant

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

TLV-TWA (ACGIH): N/D
TLV-STEL (ACGIH): N/D
PEL (OSHA 29 CFR 1910.1000): 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: Should wear safety glasses, chemical splash-proof (complying with EN 166).

Skin protection: When handling this product should wear impermeable protective PVC,

nitrile or butyl gloves (complying with standards EN 374), clothes and safety

footwear resistant to chemicals.

Respiratory protection: Where necessary, use an organic vapours (A) respirator. Special attention to

oxygen levels in the air should be paid.

If large releases occur, wear self-contained breathing apparatus (SCBA).

RIZOWET SAFETY DATA SHEET VERSION: 2
PAGE 5 OF 9

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Liquid.

Color: Light yellow.

Odour: Moderate, like polyether.

Odour threshold: N/D pH: N/D Melting point: N/D

Boiling point: $> 150 \,^{\circ}\text{C} \, (> 302 \,^{\circ}\text{F})$

Flammability: The product is not flammable.

Flash point: 116 °C (241 °F)

Evaporation rate: N/D
Auto-ignition temperature: N/D
Explosive limits: N/D
Decomposition temperature: N/D

Vapour pressure (20°C): < 1 mmHg

Vapour density (air=1): > 1

Relative density (20°C): 1,007 g/cm³

Solubility (20°C): Dispersible in water.

Henry constant (20°C): N/D
Partition coefficient (logKo/w): N/D
Viscosity (20°C): N/D

Explosive properties: Not explosive. According to column 2 of Annex VII of REACH, this study is

not required because: in the molecule no chemical groups are associated

with explosive properties.

Oxidizing properties: According to column 2 of Annex XVII of REACH, this study is not necessary

because: the substances present in the product, due to their chemical structures, are incapable of reacting exothermically with combustible

materials.

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 is not corrosive to metals. Does not react with water.

10.2. Chemical stability

The product is chemically stable and does not require stabilizers.

RIZOWET SAFETY DATA SHEET VERSION: 2
PAGE 6 OF 9

10.3. Possibility of hazardous reactions

No hazardous polymerization is expected.

10.4. Conditions to avoid

Avoid high temperatures.

10.5. Incompatible materials

strong oxidizing 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: LD50 oral (rat, OECD 401): > 2000 mg/kg

LD50 der (rabbit, OECD 402): > 2000 mg/kg LC50 inh. (rat, 4hs., OECD 403, aerosol): 2 mg/l

LC50 inh. (rat, 4hs., OECD 403, aerosol sc. 5%): > 11,78 mg/l

Skin corrosion / irritation: Skin irr. (rabbit, OECD 431): not irritant

Serious eye damage / irritation: Eye irr. (rabbit, OECD 405): irritant

Respiratory or skin sensitization: Skin sens (Guinea pig, OECD 406): not sensitising

Resp. sens (Guinea pig, OECD 429): not sensitizing

Carcinogenicity, mutagenicity and

reproductive toxicity:

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: his material was not mutagenic in the Ames bacterial assay or in three mammalian test systems including the Chinese hamster ovary (CHO), HGPRT gene mutation assay, a micronucleus cytogenetic

assay in mice, and a cytogenetic test of in vitro mammals.

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.

Routes of exposure: Inhalation, skin and eye contact.

Inhalation: harmful, may cause irritation of the respiratory tract, nausea and headache.

Skin contact: frequent or prolonged contact may cause skin irritation.

Eye contact: Irritating to the eyes.

Ingestion: may cause irritation of the mouth, pharynx, esophagus and stomach. Harmful if ingested.

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.

SECTION 12 – ECOLOGICAL INFORMATION

12.1. Toxicity

LC50 (D. rerio, OECD 203, 96 h): 2,75 mg/l EC50 (D. similis, OECD 202, 48 h): 22,61 mg/l EC50 (algae, OECD 201, 72 h): 5,5 mg/l

May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

BIODEGRADABILITY (estimated): The product is not readily biodegradable.

12.3. Bioaccumulative potential

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

BIOCONCENTRATION FACTOR - BCF (OCDE 305): N/D

12.4. Mobility in soil

HENRY CONSTANT (20°C): N/D

LogKoc: N/D

12.5. Results of PBT and vPvB assessment

This substance / mixture does not meet the PBT criteria of Annex XIII of REACH. This substance / mixture 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

Both the excess product and empty containers should be disposed of in accordance with current legislation regarding the Protection of Environment and particularly of hazardous waste. It should classify the waste and dispose of it by an authorized company.

Empty containers may contain residue and thus be dangerous. Do not attempt to refill or clean containers without possessing the appropriate instructions.

SECTION 14 – TRANSPORT INFORMATION

14.1 Transport by land

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Polyalkyleneoxide modified heptamethyltrisiloxane)

UN/ID Number: 3082
Hazard class: 9
Packing group: III
Hazard identification number: 90
Excepted and limited quantity: 5L / E1

14.2 Air transport (ICAO/IATA)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Polyalkyleneoxide modified heptamethyltrisiloxane)

UN/ID Number: 3082
Hazard class: 9
Packing group: III

PAX and Cargo Packing instructions: Y964, 30Kg / 964, 450L

Cargo Packing instructions: 964, 450L

ERC: 9L

14.3 Sea transport (IMO)

IMDG Code

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Polyalkyleneoxide modified heptamethyltrisiloxane)

UN/ID N°: 3082
Hazard class: 9
Packing group: III

EMS: F-A; S-F Stowage and manipulation: A

SW23 When transported in BK3 bulk container, see 7.6.2.12

and 7.7.3.9.

Segregation: -

Marine pollutant: SI

Proper Shipping Name: UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUID, N.O.S. (Polyalkyleneoxide modified

heptamethyltrisiloxane); Class 9; PG III; MARINE POLLUTANT

SECTION 15 – REGULATORY INFORMATION

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

Not dangerous for the ozone layer (1005/2009/EC). Volatile organic compounds (VOC's) (1999/13/EC): 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

N/A: not applicable. STEL: Short Term Exposure

N/D: no data available.

CAS: Chemical Abstracts Service

REL: Recommended Exposure Limit.

PEL: Permissible Exposure Limit.

IARC: International Agency for Research on Cancer INSHT: National Institute for Safety and Health at

ACGIH: American Conference of Governmental Work.

Industrial Hygienists. ATE: Acute toxicity estimate.

TLV: Threshold Limit Value LD50: Lethal Dose.

TWA: Time Weighted Average LC50: Lethal Concentration.

RIZOWET SAFETY DATA SHEET VERSION: 2
PAGE 9 OF 9

EC50: Average Effective Concentration. |: Changes from the previous revision.

IC50: Inhibitory Concentration Medium.

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 6 ('ST / SG / AC 10/30 / Rev.6') 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 2017) and amendments.

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2017) and amendments.

International Maritime Dangerous Goods Code (IMDG 2016 - Amendment 38-16), International Maritime Organization (IMO).

IBC Code 2016, IMO, IMO Resolution MSC.369 (93).

Regulations of the International Air Transport Association (IATA 58 ed., 2017) 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.

SECTION 2: classification by analogy with other products, and based on product data.

SECTION 9: product data.

SECTION 11 and 12: analogy with other products.

Acute toxicity: calculation method for estimating acute toxicity.

16.4 Disclaimer

This information only concerns the above mentioned product and is not to be valid for other (s) product (s) or in any process. This safety data sheet provides health and safety information. The information is to our best knowledge, correct and complete. It is given in good faith but without warranty. The product should be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other use, exposure should be evaluated so that they can implement appropriate handling practices and training programs to ensure safe operations in the workplace.

It remains the user's own responsibility that this information is appropriate and complete for the special use of this product.

Version: 2 Emission date: may, 2018

Replaces: 1

Created: CIQUIME Revised: RIZOBACTER ARGENTINA S.A.