SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

1.1 Product identifier

Product name: Rivolta B.S.E.

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

Identified uses: Acidic cleaner
For commercial use only

Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier Bremer & Leguil GmbH
Am Burgacker 30 - 42
47051 Duisburg / Germany
info@bremer-leguil.de
Telephone: +49(0)203/9923-0

Contact Person: Bremer & Leguil GmbH - Product Safety Management
E-mail: product-safety@bremer-leguil.de

1.4 Emergency telephone number:

+49 (0)613119240 (Giftinformationszentrum Mainz 00:00-24:00)

In accordance with EU legislation and guidance, we provide the relevant EU In-Country Poison Center numbers along with details regarding their limited service hours. We do not guarantee the accuracy of the availability, support, information and/or guidance offered by any of the listed state-sponsored Centers.

Austria:	+43 1 406 43 43	Latvia:	+371 67042473
Belgium:	+32 (0) 70 245 245	Lithuania:	+370 (85) 236 2052
Bulgaria:	+359 2 9154 233	Luxembourg:	+352 8002 5500
Croatia:	+3851 2348 342	Netherlands:	+31 (0) 88 755 8000
Cyprus:	+357 1401	Norway:	+47 22 59 13 00
Czechia:	+420 224 91 92 93	Poland:	Not available for SDS use
Denmark:	+45 8212 12 12	Portugal:	+351 800 250 250
Estonia:	+372 16662	Romania:	+40 (0) 21 318 36 06 (8 am - 3 pm)
France:	+33 (0) 1 45 42 59 59	Slovakia:	+421 2 5477 4166
Greece:	+30 210 779 3777	Slovenia:	+386 112
Hungary:	+36 80 201 199	Spain:	+34 91 562 04 20
Iceland:	+354 112	Sweden:	+46 112
Italy:	+39 800 883 300 (Bergamo) +39 055 794 7819 (Florence) +39 800 183 459 (Foggia) +39 02 6610 1029 (Milan) +39 081 545 3333 (Napoli)	Italy:	+39 800 011 858 (Verona) +39 0382 24 444 (Pavia) +39 06 4997 8000 (Rome) +39 06 305 4343 (Rome) +39 06 6859 3726 (Rome)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified and labelled as hazardous according to regulation (EU) 1272/2008 (CLP).

Classification according to Regulation (EC) No 1272/2008 as amended.

Health Hazards

Skin corrosion	Category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage	Category 1	H318: Causes serious eye damage.
Specific Target Organ Toxicity - Single Exposure	Category 3	H335: May cause respiratory irritation.

Hazard summary

Physical Hazards: No data available.

2.2 Label Elements

Contains: Citric acid



Signal Words: Danger

Hazard Statement(s): H314: Causes severe skin burns and eye damage.
H335: May cause respiratory irritation.

Precautionary Statements

Prevention: P261: Avoid breathing dust/mist/vapors/spray.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P310: Immediately call a POISON CENTER or doctor/ physician.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental label information
EUH208: Contains: thiourea derivative. May produce an allergic reaction.

2.3 Information on other hazards By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept. The product may not be released into the environment without control.

Endocrine disrupting properties The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Results of PBT and vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: This product is applied only as solution or emulsion in water.

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
Organic acid	EINECS: 201-069-1	20,00% - <50,00%	01-2119457026-42	
alkylamine, ionic equilibrium with acids	Neutralisation product (*)	1,00% - <5,00%		
thiourea derivative	EINECS: 203-674-6	0% - <0,10%	01-2120773450-57	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
(*) Neutralisation product: Equilibrium of Ionic Pairs in aequous solution according to REACH Annex V, 4.

Classification

Chemical name	Identifier	Classification	
Organic acid	EINECS: 201-069-1	CLP:	, Eye Irrit. 2;H319, STOT SE 3;H335
alkylamine, ionic equilibrium with acids	Neutralisation product (*)	CLP:	Acute Tox. 4;H302, Eye Irrit. 2;H319, Aquatic Chronic 3;H412
thiourea derivative	EINECS: 203-674-6	CLP:	Skin Sens. 1A;H317, Acute Tox. 4;H312, STOT RE 1;H372, Aquatic Chronic 2;H411

CLP: Regulation No. 1272/2008.

SECTION 4: First aid measures

General: Instantly remove any clothing soiled by the product.

4.1 Description of first aid measures

Inhalation: If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Supply fresh air; consult doctor in case of symptoms.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Destroy or thoroughly clean contaminated shoes. Get medical attention.

Ingestion: Rinse mouth. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed: Risk of serious damage to eyes. Causes burns.

4.3 Indication of any immediate medical attention and special treatment needed When handing over this safety data sheet, please make the remark: "Cleaner". Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO_2, extinguishing powder, water mist spray jet or water spray jet. Fight larger fires with alcohol-resistant foam or a water spray jet containing a suitable surfactant additive.

Unsuitable extinguishing media: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture: During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire-fighting procedures:	Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water inaccordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. In case of spills, beware of slippery floors and surfaces.
6.2 Environmental Precautions:	Prevent from spreading (e.g. by binding or oil barriers). Avoid release to the environment. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so. Do not allow to enter drainage system, surface or ground water.
6.3 Methods and material for containment and cleaning up:	Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust). Dispose of the material collected according to regulations. Stop the flow of material, if this is without risk.
6.4 Reference to other sections:	See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal. Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:	Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Observe good industrial hygiene practices. Provide adequate ventilation.
7.2 Conditions for safe storage, including any incompatibilities:	Local regulations concerning handling and storage of waterpolluting products have to be followed. Provide alkali-resistant floor. Do not use light alloy containers.
7.3 Specific end use(s):	Not applicable
Storage Class:	8 B, Non-combustible corrosive substances

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.
None of the components have assigned exposure limits.

8.2 Exposure controls

Appropriate engineering controls: Provide adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment (PPE)

General information: Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to inhandling the chemicals or the mineral oil products.

Eye/face protection: Wear eye protection/face protection. Avoid contact with skin and eyes.
Wear eye protection/face protection. Avoid contact with skin and eyes.

Skin protection

Hand Protection: Material: Nitrile butyl rubber (NBR).
Min. Breakthrough time: >= 480 min
Recommended thickness of the material: >= 0,38 mm

Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other: Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory Protection: Do not breathe dust/fume/gas/mist/vapors/spray. Provide adequate ventilation. In case of inadequate ventilation wear respiratory protection. Filter P2. Ensure good ventilation/exhaustion at the workplace. Avoid breathing vapour/ aerosol.

Thermal hazards: Not known.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Characteristic
pH:	1,2 (100 %, 20 °C, DIN 19268)
Freezing point:	< 0 °C
Boiling Point:	> 100 °C
Flash Point:	Not applicable
Flammability (solid, gas):	not determined
Explosion Limit - Upper (%):	Not applicable for mixtures
Explosion Limit - Lower (%):	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Relative vapor density:	Not applicable for mixtures
Density:	1,14 g/cm3 (15 °C) (DIN 51757)
Solubility(ies)	
Solubility in Water:	Miscible with water.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable for mixtures
Auto-ignition temperature:	not determined
Decomposition Temperature:	not determined
Kinematic viscosity:	not determined
Particle characteristics:	Not applicable

9.2 Other information No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity: Stable under normal use conditions.

10.2 Chemical Stability: Stable under normal use conditions.

10.3 Possibility of hazardous reactions: Stable under normal use conditions.

10.4 Conditions to avoid: Stable under normal use conditions.

10.5 Incompatible Materials: Strong oxidizing substances. Strong acids. Strong oxidizing substances. Strong acids. Strong bases.

10.6 Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Ingestion:	No data available.
Skin Contact:	Causes severe skin burns.
Eye contact:	Causes serious eye damage.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Oral

Product:	ATEmix: 30.000 mg/kg
Specified substance(s)	
alkylamine, ionic equilibrium with acids	LD 50 (Rat): 301 - 2.000 mg/kg

Dermal

Product:	Not classified for acute toxicity based on available data.

Inhalation

Product:	Not classified for acute toxicity based on available data.

Skin Corrosion/Irritation:

Product:	Based on available data, the classification criteria are met.

Serious Eye Damage/Eye Irritation:

Product:	Based on available data, the classification criteria are met.

Respiratory or Skin Sensitization:

Product:	Skin sensitizer: Based on available data, the classification criteria are not met. Respiratory sensitizer: Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Product:	Based on available data, the classification criteria are not met.

Carcinogenicity

Product:	Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:	Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure
Product: Based on available data, the classification criteria are met.

Specific Target Organ Toxicity - Repeated Exposure
Product: Based on available data, the classification criteria are not met.

Aspiration Hazard
Product: Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties
Product: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

General information: Not applicable

12.1 Toxicity

Acute toxicity
Product: Based on available data, the classification criteria are not met.

Fish
Specified substance(s)

alkylamine, ionic equilibrium with acids	LC 50 (Fish, 96 h): 5,7 mg/l

Chronic ToxicityProduct: Based on available data, the classification criteria are not met.

12.2 Persistence and Degradability

Biodegradation
Product: Not applicable for mixtures
Specified substance(s)

alkylamine, ionic equilibrium with acids	(OECD 301B) The product is readily biodegradable.

12.3 Bioaccumulative potential
Product: Not applicable for mixtures

12.4 Mobility in soil:
Product: Not applicable for mixtures

12.5 Results of PBT and vPvB assessment: The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Endocrine disrupting properties

Product: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects: No data available.

Water Hazard Class (WGK): WGK 1: slightly water-endangering.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: Dispose in accordance with all applicable regulations.

Disposal methods: Do not empty into drains; dispose of this material and its container in a safe way. When storing used products, ensure that the waste categories and mixing instructions are observed.

European Waste Codes

07 01 01*: aqueous washing liquids and mother liquors
07 06 01*: aqueous washing liquids and mother liquors

SECTION 14: Transport information

ADR/RID

14.1 UN number or ID number:	UN 3265
14.2 UN Proper Shipping Name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(Organic acid)
14.3 Transport Hazard Class(es)	
Class:	8
Label(s):	8
Hazard No. (ADR):	80
Tunnel restriction code:	(E)
14.4 Packing Group:	II
14.5 Environmental hazards:	–
14.6 Special precautions for user:	–

IMDG

14.1 UN number or ID number:	UN 3265
14.2 UN Proper Shipping Name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(Organic acid)
14.3 Transport Hazard Class(es)	
Class:	8
Label(s):	8
EmS No.:	F-A, S-B
14.3 Packing Group:	II
14.5 Environmental hazards:	–
14.6 Special precautions for user:	–

IATA

14.1 UN number or ID number:	UN 3265
14.2 Proper Shipping Name:	Corrosive liquid, acidic, organic, n.o.s.(Organic acid)
14.3 Transport Hazard Class(es):	
Class:	8
Label(s):	8
14.4 Packing Group:	II
14.5 Environmental hazards:	–
14.6 Special precautions for user:	–

14.7 Maritime transport in bulk according to IMO instruments: Not applicable.

SECTION 15: Regulatory information

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

EU Regulations

EU. Ozone Depleters, Annex I to Regulation 2024/590 on Substances that Deplete the Ozone Layer: none

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: none

Regulation (EC) No. 649/2012 Import and export of dangerous chemicals: none

National Regulations

Water Hazard Class (WGK): WGK 1: slightly water-endangering.

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

DIRECTIVE 2012/18/EU (SEVESO III) on the control of major-accident hazards involving dangerous substances

Not applicable

SECTION 16: Other information

Revision Information: Vertical lines in the margin indicate an amendment.

Wording of the H-statements in section 2 and 3

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Other information: The classification complies with the current EU lists; however, it has been supplemented with expert literature information and information provided by/about our company. The following evaluation methods were used: - On the basis of test data - Calculation Method - Bridging Principle "Substantially similar mixtures" - Expert Judgement

Revision Date: 20.10.2026

Disclaimer: The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.

Abbreviations and acronyms

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EIGA - European Industrial Gases Association; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization;

IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LSPN - List of Hazardous Notified Substances (Chile); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative