

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.R.X. 648

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

Identified uses: Alkaline cleaner/ detergent
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-management@bremer-leguil.de

1.4 Emergency telephone number: +49 (0) 6131 19240 (Giftinformationszentrum Mainz)

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.

Physical Hazards

Corrosive to metal	Category 1	H290: May be corrosive to metals.
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Health Hazards

Skin corrosion	Category 1B	H314: Causes severe skin burns and eye damage.
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Serious eye damage	Category 1	H318: Causes serious eye damage.
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Hazard summary

Physical Hazards: No data available.

2.2 Label Elements

Contains: Potassium hydroxide

Product name: Rivolta B.R.X. 648



Signal Words: Danger

Hazard Statement(s): H290: May be corrosive to metals.
H314: Causes severe skin burns and eye damage.

Precautionary Statements

Prevention: 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].
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310: Immediately call a POISON CENTER/doctor.

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Mixture based on (strong) alkaline components, tensides and stabilizers.
This product is applied only as solution or emulsion in water.

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
Glycol derivative	EINECS: 203-961-6	50,00% - <100,00%	01-2119475104-44	
Potassium hydroxide	EINECS: 215-181-3	3,00% - <5,00%	01-2119487136-33	
Fatty alcohol, ethoxylated	Polymer	1,00% - <5,00%		
Fatty amine, ethoxylated	EC: 500-152-2	1,00% - <3,00%		

* 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.

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Classification

Chemical name	Identifier	Classification
Glycol derivative	EINECS: 203-961-6	CLP: Eye Irrit. 2;H319
Potassium hydroxide	EINECS: 215-181-3	CLP: Acute Tox. 4;H302, Skin Corr. 1A;H314, Eye Dam. 1;H318, Met. Corr. 1;H290
Fatty alcohol, ethoxylated	Polymer	CLP: Eye Irrit. 2;H319
Fatty amine, ethoxylated	EC: 500-152-2	CLP: Eye Dam. 1;H318, Acute Tox. 4;H302

CLP: Regulation No. 1272/2008.

specific concentration limit

Chemical name	Identifier	specific concentration limit	Hazard class	Hazard Category	Hazard state-ments
Potassium hydroxide	EINECS: 215-181-3	>= 5 %	Skin corrosion	1A	H314
		2 - < 5 %	Skin corrosion	1B	H314
		0,5 - < 2 %	Skin irritation	2	H315
		0,5 - < 2 %	Serious eye irritation	2	H319

For the wording of the listed hazard statements refer to section 16.

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

Product name: Rivolta B.R.X. 648

Suitable extinguishing media: CO₂, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added

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 in accordance 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: Store in corrosive resistant container with a resistant inner liner. 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

Product name: Rivolta B.R.X. 648

Storage Class: 8 B, Non-combustible corrosive substances

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Glycol derivative	STEL	15 ppm 101,2 mg/m ³	EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended (12 2009)
Glycol derivative	TWA	10 ppm 67,5 mg/m ³	EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended (12 2009)
Glycol derivative - Vapor and aerosol.	AGW	10 ppm 67 mg/m ³	Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended (04 2014)
tert. alkanolamine - Inhalable fraction.	MAK	5 mg/m ³	Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as amended (2011)

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

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 in handling the chemicals or the mineral oil products.

Eye/face protection:

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: $\geq 0,38$ 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.

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Respiratory Protection:	Do not breathe dust/fume/gas/mist/vapors/spray. Provide adequate ventilation. In case of inadequate ventilation wear respiratory protection. Filter A/P2.
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:	Light brown
Odor:	Characteristic
pH:	14,0 (100 %, 20 °C, DIN 19268)
Freezing point:	< 0 °C
Boiling Point:	> 100 °C
Flash Point:	Not applicable
Evaporation Rate:	Not applicable for mixtures
Flammability (solid, gas):	not determined
Flammability Limit - Upper (%)—:	Not applicable for mixtures
Flammability Limit - Lower (%)—:	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Relative vapor density:	Not applicable for mixtures
Density:	1,12 g/cm ³ (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
Autoignition Temperature:	not determined
Decomposition Temperature:	not determined
Flow time	Value not relevant for classification
Explosive properties:	Value not relevant for classification
Oxidizing properties:	Value not relevant for classification
Particle characteristics:	Not applicable

9.2 Other information

No data available.

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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 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: 5.771 mg/kg
Specified substance(s)	
Glycol derivative	LD 50 (Rat): 3.384 mg/kg
Potassium hydroxide	LD 50 (Rat): 333 mg/kg
Fatty amine, ethoxylated	LD 50 (Rat): 301 - 2.000 mg/kg

Dermal

Product:	Not classified for acute toxicity based on available data.
Specified substance(s)	
Glycol derivative	LD 50 (Rabbit): 2.700 mg/kg

Inhalation

Product:	Not classified for acute toxicity based on available data.
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Skin Corrosion/Irritation:

Product:	Based on available data, the classification criteria are met.
Specified substance(s)	
Fatty alcohol, ethoxylated	OECD 404 (Rabbit): Slightly irritating.

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Serious Eye Damage/Eye Irritation:

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

Specified substance(s)

Fatty alcohol, ethoxylated OECD 405 (Rabbit):
Irritating.

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 not 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

12.1 Toxicity

Acute toxicity

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

Fish

Specified substance(s)

Glycol derivative LC 50 (Fish, 96 h): 1.300 mg/l

Potassium hydroxide LC 50 (Fish, 96 h): 75 mg/l

Fatty alcohol, ethoxylated LC 50 (Fish, 96 h): 1,1 mg/l

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Fatty amine, ethoxylated LC 50 (Fish, 96 h): 5,7 mg/l

Aquatic Invertebrates

Specified substance(s)

Glycol derivative EC 50 (Water Flea, 48 h): > 101 mg/l

Potassium hydroxide EC 50 (Water Flea, 48 h): 30 mg/l

Fatty alcohol, ethoxylated EC 50 (Water Flea, 48 h): 1,1 mg/l (OECD 202)

Fatty amine, ethoxylated EC 50 (Water Flea, 48 h): 12,1 mg/l

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

Toxicity to Aquatic Plants

Specified substance(s)

Glycol derivative EC 50 (Alga, 96 h): > 101 mg/l

Fatty alcohol, ethoxylated EC 50 (Alga, 72 h): 1,1 mg/l (OECD 201)

12.2 Persistence and Degradability

Biodegradation

Product: Not applicable for mixtures

Specified substance(s)

Fatty alcohol, ethoxylated > 60 % (28 d, OECD 301B) Readily biodegradable

12.3 Bioaccumulative potential

Product: Not applicable for mixtures

Specified substance(s)

Fatty alcohol, ethoxylated Bioconcentration Factor (BCF): 13 - 68 Potential to bioaccumulate is low.

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.

Product name: Rivolta B.R.X. 648

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 1719
14.2 UN Proper Shipping Name:	CAUSTIC ALKALI LIQUID, N.O.S.(Potassium hydroxide)
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 1719
14.2 UN Proper Shipping Name:	CAUSTIC ALKALI LIQUID, N.O.S.(Potassium hydroxide)
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 1719
14.2 Proper Shipping Name:	Caustic alkali liquid, n.o.s.(Potassium hydroxide)
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.

Product name: Rivolta B.R.X. 648

SECTION 15: Regulatory information

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

EU Regulations

EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: none

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: 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.

SECTION 16: Other information

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

Wording of the H-statements in section 2 and 3

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

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: 07.12.2022

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.