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 S.F.R. Spray

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

Identified uses: Solvent-based cleaner

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.

Physical Hazards

Flammable aerosol	Category 1	H222: Extremely flammable aerosol. H229: Pressurized container: May burst if heated.

Health Hazards

Serious eye irritation	Category 2	H319: Causes serious eye irritation.

Hazard summary

Physical Hazards: No data available.

2.2 Label Elements



Signal Words: Danger

Hazard Statement(s):
H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.
H319: Causes serious eye irritation.

Precautionary Statements

General information: P102: Keep out of reach of children.

Prevention: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P251: Do not pierce or burn, even after use.
P280: Wear eye protection/face protection.

Response: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.

Storage: P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

2.3 Information on other hazards 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: Mixture of components with propellant in aerosol can.

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
Propane	EINECS: 200-827-9	0% - <50,00%	01-2119486944-21	
Butane (<0,1% 1,3-butadiene)	EINECS: 203-448-7	0% - <50,00%	01-2119474691-32	
Isobutane (<0,1% 1,3-butadiene)	EINECS: 200-857-2	0% - <50,00%	01-2119485395-27	
Glycol derivative	EINECS: 203-961-6	10,00% - <20,00%	01-2119475104-44	
Butanone	EINECS: 201-159-0	5,00% - <10,00%	01-2119457290-43	

* 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.

Classification

Chemical name	Identifier	Classification	
Propane	EINECS: 200-827-9	CLP:	Flam. Gas 1A;H220, Press. Gas Compr. Gas;H280
Butane (<0,1% 1,3-butadiene)	EINECS: 203-448-7	CLP:	Flam. Gas 1A;H220, Press. Gas Compr. Gas;H280
Isobutane (<0,1% 1,3-butadiene)	EINECS: 200-857-2	CLP:	Flam. Gas 1A;H220, Press. Gas Compr. Gas;H280
Glycol derivative	EINECS: 203-961-6	CLP:	Eye Irrit. 2;H319
Butanone	EINECS: 201-159-0	CLP:	, Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336 EUH066

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: 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: Wash with soap and water.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

General Fire Hazards: Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

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:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. Keep away from sources of ignition - No smoking.
6.2 Environmental Precautions:	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:	Scrape up spillage or absorb with absorbing material. Stop the flow of material, if this is without risk. Dispose of the material collected according to regulations.
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. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:	Avoid contact with eyes. Wash hands thoroughly after handling. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.
7.2 Conditions for safe storage, including any incompatibilities:	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Local regulations concerning handling and storage of waterpolluting products have to be followed.

7.3 Specific end use(s): Not applicable

Storage Class: 2 B, Aerosols

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Propane	AGW	1.000 ppm 1.800 mg/m3	Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended (01 2012)
Butane (<0,1% 1,3-butadiene)	AGW	1.000 ppm 2.400 mg/m3	Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended (01 2012)
Isobutane (<0,1% 1,3-butadiene)	AGW	1.000 ppm 2.400 mg/m3	Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended (01 2012)
Glycol derivative	STEL	15 ppm 101,2 mg/m3	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/m3	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/m3	Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended (04 2014)

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: Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield. Avoid contact with skin and eyes. Goggles/face shield are recommended. If risk of splashing, wear safety goggles or face shield.

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 AX/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:	Aerosol
Form:	Aerosol
Color:	Pale yellow
Odor:	Characteristic
pH:	substance/mixture is non-soluble (in water)
Freezing point:	not determined
Boiling Point:	> 74 °C
Flash Point:	< -60 °C (DIN EN ISO 2719)
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:	1,01 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:	No data available.
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:	No data available.
Eye contact:	Causes eye irritation.

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

Acute toxicity

Oral

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

Specified substance(s)

Glycol derivative	LD 50 (Rat): 3.384 mg/kg
Butanone	LD 50 (Rat): 3.300 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
Butanone	LD 50 (Rabbit): > 5.000 mg/kg

Inhalation

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

Specified substance(s)

Butane (<0,1% 1,3-butadiene)	LC 50 (Rat, 4 h): 658 mg/l Gas

Skin Corrosion/Irritation:

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

General information: Not applicable

12.1 Toxicity

Acute toxicity

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

Fish

Specified substance(s)

Propane	LC 50 (Fish, 96 h): > 1.000 mg/l
Isobutane (<0,1% 1,3-butadiene)	LC 50 (Fish, 96 h): 28 mg/l
Glycol derivative	LC 50 (Fish, 96 h): 1.300 mg/l
Butanone	LC 50 (Fish, 96 h): 3.220 mg/l

Aquatic Invertebrates

Specified substance(s)

Isobutane (<0,1% 1,3-butadiene)	EC 50 (Water Flea, 48 h): 16,3 mg/l
Glycol derivative	EC 50 (Water Flea, 48 h): > 101 mg/l
Butanone	EC 50 (Water Flea, 48 h): 5.091 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
Butanone	EC 50 (Alga, 72 h): 1.972 mg/l (OECD 201)

12.2 Persistence and Degradability

Biodegradation

Product: Not applicable for mixtures

Specified substance(s)	
Butanone	98 % (28 d, OECD 301B)

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

16 05 04*: Gases in pressure containers (including halons) containing hazardous substances.

SECTION 14: Transport information

ADR/RID

14.1 UN number or ID number:	UN 1950
14.2 UN Proper Shipping Name:	AEROSOLS
14.3 Transport Hazard Class(es)	
Class:	2
Label(s):	2.1
Hazard No. (ADR):	–
Tunnel restriction code:	(D)
14.4 Packing Group:	–
14.5 Environmental hazards:	–
14.6 Special precautions for user:	–

IMDG

14.1 UN number or ID number:	UN 1950
14.2 UN Proper Shipping Name:	AEROSOLS
14.3 Transport Hazard Class(es)	
Class:	2.1
Label(s):	2.1
EmS No.:	F-D, S-U
14.3 Packing Group:	–
14.5 Environmental hazards:	–
14.6 Special precautions for user:	–

IATA

14.1 UN number or ID number:	UN 1950
14.2 Proper Shipping Name:	Aerosols, flammable
14.3 Transport Hazard Class(es):	
Class:	2.1
Label(s):	2.1
14.4 Packing Group:	–
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

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

National Regulations

Water Hazard Class WGK 1: slightly water-endangering.

(WGK):

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

Hazard category in accordance with Regulation (EC) No 1272/2008	Qualifying quantity for the application of Lower-tier requirements:	Qualifying quantity for the application of Upper-tier requirements:
P3a: P3a. Flammable aerosols	150 t	500 t

SECTION 16: Other information

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

Wording of the H-statements in section 2 and 3

EUH066	Repeated exposure may cause skin dryness or cracking.
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapor.
H229	Pressurized container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

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: 15.10.2026

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