

## 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) 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

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

**Product name:** Rivolta S.F.R. Spray

**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.

### 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	5,00% - <10,00%	01-2119475104-44	

\* 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

CLP: Regulation No. 1272/2008.

**Product name:** Rivolta S.F.R. Spray

#### 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<sub>2</sub>, 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:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**Product name:** Rivolta S.F.R. Spray

## 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
---------------	------	-----------------------	--------

**Product name:** Rivolta S.F.R. Spray

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**
**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:**

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:  $\geq 480$  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.

**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.

**Product name:** Rivolta S.F.R. Spray

**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 foot-wear 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)  
**Evaporation Rate:** Not applicable for mixtures  
**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/cm<sup>3</sup> (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

**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.

## 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.

**Product name:** Rivolta S.F.R. Spray

**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

##### 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.

##### 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 name:** Rivolta S.F.R. Spray

**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

**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

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

**Toxicity to Aquatic Plants**

**Specified substance(s)**

Isobutane (<0,1% 1,3-butadiene) EC 50 (Alga, 72 h): 8,6 mg/l

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

**Product name:** Rivolta S.F.R. Spray

---

## 12.2 Persistence and Degradability

### Biodegradation

**Product:** Not applicable for mixtures

## 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.

**Product name:** Rivolta S.F.R. Spray

## 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

**EU. Regulation 2024/590/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

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

#### National Regulations

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

**Product name:** Rivolta S.F.R. Spray

**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**

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
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:**

22.05.2024

**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.