

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 K.S.P. 305 Spray 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses: Anticorrosion product 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) **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 Aerosol	Category 1	H222: Extremely flammable aerosol. H229: Pressurized container: May burst if heated.
Hazard summary Physical Hazards:	Flammable aerosol.	
Health Hazards		
Skin Contact:	At long or repeated con degreasing effect of the	tact with skin it may cause dermatitis due to the solvent.

2.2 Label Elements



Signal Words:	Danger
Hazard Statement(s):	H222: Extremely flammable aerosol. H229: Pressurized container: May burst if heated.
Precautionary Statemen	ts
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.
Storage:	P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
Supplemental label infor	mation EUH066: Repeated exposure may cause skin dryness or cracking.
2.3 Information on other haz- ards	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 prop- erties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Com- mission 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.
	mixture of compensitie with proposality in derecer can.



Chemical name	Identifier	Concentration *	REACH Registra- tion No.	Notes
Propane	EINECS: 200-827-9	0% - <100,00%	01-2119486944-21	
Butane (<0,1% 1,3-butadiene)	EINECS: 203-448-7	0% - <100,00%	01-2119474691-32	
Isobutane (<0,1% 1,3-butadiene)	EINECS: 200-857-2	0% - <100,00%	01-2119485395-27	
Hydrocarbons, low viscous	EC: 918-167-1	1,00% - <5,00%	01-2119472146-39	

* 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	Classi	ification
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
Hydrocarbons, low viscous	EC: 918-167-1		Asp. Tox. 1;H304 EUH066

CLP: Regulation No. 1272/2008.

SECTION 4: First aid measures

4.1

General:	Instantly remove any clothing soiled by the product.	
Description of first aid measu	ires	
Inhalation:	Supply fresh air; consult doctor in case of symptoms.	

Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids.
Skin Contact:	Wash with soap and water.
Ingestion:	Rinse mouth thoroughly.
4.2 Most important symptoms and effects, both acute and delayed:	Dizziness Freeze burns
4.3 Indication of any immediate medical attention and spe-	Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

cial treatment needed

5.1 Extinguishing media

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 mix- ture:	Danger of explosion with aerosol cans.
5.3 Advice for firefighters Special fire-fighting proce- dures:	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 equip- ment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
SECTION 6: Accidental release me	easures
6.1 Personal precautions, pro- tective equipment and emergency procedures:	Keep away from sources of ignition - No smoking.
6.2 Environmental Precautions:	Avoid release to the environment. Environmental manager must be in- formed 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 ma- terial, if this is without risk. Dispose of the material collected according to regulations.
6.4 Reference to other sec- tions:	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.
SECTION 7: Handling and storage	:
7.1 Precautions for safe han- dling:	Avoid contact with flame and heat source, prevent contact with direct sun- light Use only in well-ventilated areas.
7.2 Conditions for safe storage, including any incompatibili- ties:	Local regulations concerning handling and storage of waterpolluting prod- ucts have to be followed. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Local regulations for the storage and handling of aerosol cans and flammable liquids have to be kept. Keep away from heat/sparks/hot surfaces No smoking.
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	Туре	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)
Hydrocarbons, low viscous	AGW	600 mg/m3	Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as amended (2011)
Hydrocarbons, low viscous	AGW	300 mg/m3	Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended

8.2 Exposure controls

Appropriate engineering controls:	Provide adequate ventilation. Ventilation rates should be matched to condi- tions. 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 air- borne levels to an acceptable level.
Individual protection measure	es, such as personal protective equipment (PPE)
General information:	Wash hands before breaks and after work. Use personal protective equip- ment as required. Personal protection equipment should be chosen accord- ing to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be ad- hered 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.
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 recom- mended by the glove supplier. Use skin protection cream for preventive
	skin protection. Protective gloves, where permitted in acc. to safety direc- tions. The exact break through time has to be found out by the manufactur- er of the protective gloves and has to be observed.
Other:	Do not carry cleaning cloths impregnated with the product in trouser pock- ets. Wear suitable protective clothing.



Respiratory Protection:	Do not breathe dust/fume/gas/mist/vapors/spray. Provide adequate ventila- tion. 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 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:	White
Odor:	Slight
pH:	substance/mixture is non-soluble (in water)
Freezing point:	not determined
Boiling Point:	not determined
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:	0,82 g/cm3 (15 °C) (DIN 51757)
Solubility(ies)	
Solubility in Water:	The product is insoluble in 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:	> 20,5 mm2/s (40 °C, DIN 51562)
Particle characteristics:	Not applicable
9.2 Other information	No data available.



SECTION 10: Stability and reactiv	ity
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

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) Hydrocarbons, low vis- cous	LD 50 (Rat): > 5.001 mg/kg (OECD 401)
Dermal Product:	Not classified for acute toxicity based on available data.
Specified substance(s) Hydrocarbons, low vis- cous	LD 50 (Rabbit): > 5.001 mg/kg (OECD 402)
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
Hydrocarbons, low vis- cous	LC 50 (Rat, 4 h): > 5 mg/l (OECD 403) Dust and mist
Skin Corrosion/Irritation: Product: Specified substance(s)	Based on available data, the classification criteria are not met.
Hydrocarbons, low vis- cous	Repeated exposure may cause skin dryness or cracking.



Serious Eye Damage/Eye Irri	tation:
Product: Specified substance(s) Hydrocarbons, low vis-	Based on available data, the classification criteria are not met.
cous	Based on available data, the classification criteria are not met.
Respiratory or Skin Sensitiza	
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.
Specified substance(s) Hydrocarbons, low vis- cous	Based on available data, the classification criteria are not met.
Germ Cell Mutagenicity Product: In vitro	Based on available data, the classification criteria are not met.
Specified substance(s) Hydrocarbons, low vis- cous	Based on available data, the classification criteria are not met.
In vivo Specified substance(s) Hydrocarbons, low vis- cous	Based on available data, the classification criteria are not met.
Carcinogenicity Product: Specified substance(s) Hydrocarbons, low vis-	Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.
cous	
Reproductive toxicity Product:	Based on available data, the classification criteria are not met.
Specific Target Organ Toxici Product: Specified substance(s) Hydrocarbons, low vis-	ty - Single Exposure Based on available data, the classification criteria are not met.
COUS	Based on available data, the classification criteria are not met.
Specific Target Organ Toxici Product: Specified substance(s) Hydrocarbons, low vis-	ty - Repeated Exposure Based on available data, the classification criteria are not met.
cous	Based on available data, the classification criteria are not met.
Aspiration Hazard Product:	Based on available data, the classification criteria are not met.



Specified substance(s)

Hydrocarbons, low vis- May be fatal if swallowed and enters airways.

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

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
Hydrocarbons, low vis- cous	LC 50 (Fish, 96 h): > 1.000 mg/l (OECD 203)
Aquatic Invertebrates Specified substance(s) Isobutane (<0,1% 1,3- butadiene)	EC 50 (Water Flea, 48 h): 16,3 mg/l
Hydrocarbons, low vis- cous	EC 50 (Water Flea, 48 h): > 1.000 mg/l (OECD 202)
Chronic ToxicityProduct:	Based on available data, the classification criteria are not met.
Aquatic Invertebrates Specified substance(s) Hydrocarbons, low vis- cous	NOEC (Water Flea, 21 d): > 1 mg/l (OECD 211)
Toxicity to Aquatic Plants Specified substance(s) Hydrocarbons, low vis- cous	EC 50 (Alga, 72 h): > 1.000 mg/l (OECD 201)
12.2 Persistence and Degradabili	ty
Biodegradation Product:	Not applicable for mixtures



Specified substance(s) Hydrocarbons, low vis- cous	31 % (28 d, OECD 301F) Not easily biodegradable
12.3 Bioaccumulative potential Product: Specified substance(s) Hydrocarbons, low vis- cous	Not applicable for mixtures Not applicable
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 Com- mission 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.
	tions

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: 14.2 UN Proper Shipping Name: 14.3 Transport Hazard Class(es)	UN 1950 AEROSOLS
Class: Label(s): Hazard No. (ADR):	2 2.1 -
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: 14.2 UN Proper Shipping Name: 14.3 Transport Hazard Class(es)	UN 1950 AEROSOLS
Class: Label(s): EmS No.:	2.1 2.1 F-D, S-U
14.3 Packing Group:	_
14.5 Environmental hazards: 14.6 Special precautions for user:	_
ΙΑΤΑ	
14.1 UN number or ID number: 14.2 Proper Shipping Name: 14.3 Transport Hazard Class(es): Class: Label(s):	UN 1950 Aerosols, flammable 2.1 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. 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 as- sessment:	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	Qualifying quantity for the appli-	Qualifying quantity for the appli-
with Regulation (EC) No	cation of Lower-tier require-	cation of Upper-tier require-
1272/2008	ments:	ments:
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

Repeated exposure may cause skin dryness or cracking. Extremely flammable gas. Extremely flammable aerosol. Pressurized container: May burst if heated. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. 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 simi- lar mixtures" - Expert Judgement
Extremely flammable aerosol. Pressurized container: May burst if heated. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. 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 simi- lar mixtures" - Expert Judgement
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Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. 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 simi- lar mixtures" - Expert Judgement
May be fatal if swallowed and enters airways. 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 simi- lar mixtures" - Expert Judgement
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 simi- lar mixtures" - Expert Judgement
23.05.2025 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 de- duced 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 pro- cessing, 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 sig- nature.



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); 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