

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.K.D. 16 N Spray

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

Identified uses: Lubricating oil

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 & Lequil 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.

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Hazard summary

Physical Hazards: Flammable aerosol.

2.2 Label Elements

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Signal Words: Danger

Hazard Statement(s): H222: Extremely flammable aerosol.

H229: Pressurized container: May burst if heated.

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.

Storage: P410+P412: Protect from sunlight. Do not expose to temperatures

exceeding 50 °C/122°F.

Supplemental label information

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 envi-

ronment 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 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.

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| Chemical name | Identifier | Concentration * | REACH Registration No. | Notes |
|---------------------------------|-------------------|------------------|------------------------|-------|
| Propane | EINECS: 200-827-9 | 0% - <50,00% | 01-2119486944-21 | |
| Isobutane (<0,1% 1,3-butadiene) | EINECS: 200-857-2 | 0% - <50,00% | 01-2119485395-27 | |
| Butane (<0,1% 1,3-butadiene) | EINECS: 203-448-7 | 0% - <50,00% | 01-2119474691-32 | |
| Hydrocarbons, low viscosity | EINECS: 920-901-0 | 10,00% - <20,00% | 01-2119456810-40 | |
| 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.

Classification

| Chemical name | Identifier | Classification | | |
|---------------------------------|-------------------|----------------|--|--|
| Propane | EINECS: 200-827-9 | 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 | |
| Butane (<0,1% 1,3-butadiene) | EINECS: 203-448-7 | CLP: | Flam. Gas 1A;H220, Press. Gas Compr. Gas;H280 | |
| Hydrocarbons, low viscosity | EINECS: 920-901-0 | CLP: | Asp. Tox. 1;H304 EUH066 | |
| Hydrocarbons, low viscous | EC: 918-167-1 | CLP: | Asp. Tox. 1;H304, Aquatic Chronic 4;H413 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: 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 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 pro-

tected location. Move containers from fire area if you can do so without risk.

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PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.



5.1 Extinguishing media

Suitable extinguishing me-

dia:

CO2, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant add-

Unsuitable extinguishing

media:

Water with a full water jet.

5.2 Special hazards arising from the substance or mixture:

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 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.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

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SECTION 7: Handling and storage:

7.1 Precautions for safe handling:

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. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Avoid contact with flame and heat source, prevent contact with direct sunlight Use only in well-ventilated areas.

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. 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 |
|-------------------------------------|------|-----------------------|-------------|---|
| Hydrocarbons, low viscosity | MAK | 50 ppm | 300 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) |
| 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) |

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)

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General information: Wash hands before breaks and after work. Use personal protective equip-

ment 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 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 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 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-

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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: Light brown
Odor: Characteristic

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

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Explosion Limit - Upper (%):

Not applicable for mixtures

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: 25 mm2/s (40 °C, DIN 51562)

Particle characteristics: Not applicable

9.2 Other information No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity: Stable under normal use conditions.

10.2 Chemical Stability: Stable under normal use conditions.

10.3 Possibility of hazardous

reactions:

Stable under normal use conditions.

10.4 Conditions to avoid: Stable under normal use conditions.

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

10.6 Hazardous Decomposition

Products:

Thermal decomposition or combustion may liberate carbon oxides and oth-

er 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-

cosity

LD 50 (Rat): > 10.000 mg/kg

Hydrocarbons, low vis-

cous

LD 50 (Rat): > 5.000 mg/kg (OECD 401)

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Dermal

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

Specified substance(s)

Hydrocarbons, low vis-

cous

LD 50 (Rabbit): 3.160 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-

cosity

LC 50 (Rat, 4 h): > 5 mg/l

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 not 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

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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 haz-

ards

Endocrine disrupting properties

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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-

cosity

LC 50 (Fish, 96 h): > 101 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.

Toxicity to Aquatic Plants Specified substance(s)

Hydrocarbons, low vis-

EC 50 (Alga, 72 h): > 1.000 mg/l (OECD 201)

cous

12.2 Persistence and Degradability

Biodegradation

Product: Not applicable for mixtures

Specified substance(s)

Hydrocarbons, low vis-

cosity

31 % (28 d, OECD 301F) Not readily degradable.

12.3 Bioaccumulative potential

Product: Not applicable for mixtures

12.4 Mobility in soil:

Product: Not applicable for mixtures

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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

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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

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hazardous substances.

SECTION 14: Transport information

ADR/RID

14.1 UN number or ID number: UN 195014.2 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:

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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. 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 1: slightly water-endangering.

(WGK):

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15.2 Chemical safety as-

No Chemical Safety Assessment has been carried out.

sessment:

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. |

H229 Pressurized container: May burst if heated.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H413 May cause long lasting harmful effects to aquatic life.

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 simi-

lar mixtures" - Expert Judgement

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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 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

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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

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