

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 A.C.S. Spray
1.2 Relevant identified uses of the su	bstance 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 safet	y data sheet
Manufacturer / Supplier	Bremer & Leguil GmbH Am Burgacker 30 - 42 47051 Duisburg / Germany info@bremer-leguil.de
Telephone:	+49 (0)203 / 9923-0
Contact Person:	Bremer & Leguil GmbH - Product Safety Management
E-mail:	product-safety-management@bremer-leguil.de
1.4 Emergency telephone number:	+49 (0) 6131 19240 (Giftinformationszentrum Mainz)
SECTION 2: Hazards identification	

2.1 Classification of the substance or mixture

The product has been classified and labelled as hazardous according to regulation (EU) 1272/2008 (CLP).

Classification according to Regulation (EC) No 1272/2008 as amended.

Physical Hazards Aerosols		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.
Specific Target Organ Toxi Single Exposure	city -	Category 3	H336: May cause drowsiness or dizziness.
Hazard summary Physical Hazards:	Flamma	able aerosol.	
Health Hazards Inhalation:	Has a n	narcotic effect.	
Skin Contact:	At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.		



2.2 Label Elements Contains:	Acetone
Signal Words:	Danger
Hazard Statement(s):	H222: Extremely flammable aerosol. H229: Pressurized container: May burst if heated. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness.
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. P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P271: Use only outdoors or in a well-ventilated area. P280: Wear protective gloves/protective clothing/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. P304+P312: IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
Storage:	P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
Supplemental label info	r 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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures



General information:

Mixture of components with propellant in aerosol can.

Chemical name	Identifier		REACH Registra- tion No.	Notes
Acetone	EINECS: 200-662-2	50,00% - <100,00%	01-2119471330-49	
Carbon Dioxide	EINECS: 204-696-9	5,00% - <10,00%		

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Identifier	Classification	
Acetone	EINECS: 200-662-2	CLP:	Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336 EUH066
Carbon Dioxide	EINECS: 204-696-9	CLP:	Press. Gas Compr. Gas;H280

CLP: Regulation No. 1272/2008.

SECTION 4: First aid measures

SECTION 4: First aid measures	
General:	Instantly remove any clothing soiled by the product.
4.1 Description of first aid measu	ires
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. Dizziness Freeze burns
4.3 Indication of any immediate medical attention and spe- cial treatment needed	Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

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-ed
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 m	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.
	Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.
SECTION 7: Handling and storage	9:
7.1 Precautions for safe han- dling:	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. 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 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/pe	

8.1 Control Parameters Occupational Exposure Limits



Chemical name	Туре	Exposure Limit Values	Source
Acetone	TWA	500 ppm 1.210 mg/n	 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)
Acetone	AGW	500 ppm 1.200 mg/n	n3 Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended (01 2012)
Carbon Dioxide	TWA	5.000 ppm 9.000 mg/n	 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)
Carbon Dioxide	AGW	5.000 ppm 9.100 mg/n	n3 Germany. TRGS 900, Occupational Exposure Limits (AGW), as amended (01 2012)

Biological Limit Values

Chemical name	Exposure Limit Values	Source
Acetone (acetone: Sampling time: End of shift.)	80 mg/l (Urine)	DE BAT (09 2013)

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
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:	Wear eye protection/face protection.
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 pockets. Wear suitable protective clothing.
Respiratory Protection:	Do not breathe dust/fume/mist/vapors. 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 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:	Aerosols
Form:	Aerosols
Color:	Colorless
Odor:	Characteristic
pH:	substance/mixture is non-soluble (in water)
Freezing point:	not determined
Boiling Point:	56 °C
Flash Point:	< 0 °C (DIN 51755)
Evaporation Rate:	Not applicable for mixtures
Flammability (solid, gas):	not determined
Flammability Limit - Upper (%)–:	Not applicable for mixtures
Flammability Limit - Lower (%)–:	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Relative vapor density:	Not applicable for mixtures
Density:	0,79 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
Autoignition Temperature:	not determined
Decomposition Temperature:	not determined
Kinematic viscosity:	< 1 mm2/s (20 °C, DIN 51562)
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:	Stable under normal use conditions.
10.3 Possibility of hazardous reactions:	Stable under normal use conditions.
10.4 Conditions to avoid:	Stable under normal use conditions.



10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

SECTION 11: Toxicological information

Information on likely routes of exposure Inhalation: No data available.	
Ingestion:	No data available.
Skin Contact:	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) Acetone	LD 50 (Rat): 5.800 mg/kg (OECD 401)
Dermal Product:	Not classified for acute toxicity based on available data.
Specified substance(s) Acetone	LD 50 (Rabbit): > 15.800 mg/kg
Inhalation Product:	Not classified for acute toxicity based on available data.
Specified substance(s) Acetone	LC 50 (Rat, 4 h): 76 mg/l
Skin Corrosion/Irritation: Product: Specified substance(s)	Based on available data, the classification criteria are not met.
Acetone	Prolonged skin contact may cause redness, irritation and dry skin.
Serious Eye Damage/Eye Irr Product:	itation: Based on available data, the classification criteria are met.
Specified substance(s) Acetone	OECD 405 (Rabbit): Causes serious eye irritation.



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Respiratory or Skin Sensitiz 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) Acetone	Based on available data, the classification criteria are not met.
Germ Cell Mutagenicity Product: In vitro Specified substance(s)	Based on available data, the classification criteria are not met.
Acetone	Based on available data, the classification criteria are not met.
In vivo Specified substance(s) Acetone	
	Based on available data, the classification criteria are not met.
Carcinogenicity Product: Specified substance(s)	Based on available data, the classification criteria are not met.
Acetone	Based on available data, the classification criteria are not met.
Reproductive toxicity Product: Specified substance(s)	Based on available data, the classification criteria are not met.
Acetone	Based on available data, the classification criteria are not met.
Specific Target Organ Toxic Product: Specified substance(s) Acetone	ity - Single Exposure Based on available data, the classification criteria are met.
Accione	May cause drowsiness or dizziness.
Specific Target Organ Toxic	ity - Reneated Exposure
Product: Specified substance(s) Acetone	Based on available data, the classification criteria are not met.
	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 propert Product:	ies 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.



SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity Product:	Based on available data, the classification criteria are not met.
Fish Specified substance(s) Acetone	LC 50 (Fish, 96 h): 5.540 mg/l
Aquatic Invertebrates Specified substance(s) Acetone	EC 50 (Water Flea, 48 h): 8.800 mg/l
Chronic ToxicityProduct:	Based on available data, the classification criteria are not met.
12.2 Persistence and Degradabili	ty
Biodegradation Product: Specified substance(s) Acetone	Not applicable for mixtures The product is easily biodegradable.
12.3 Bioaccumulative potential Product: Specified substance(s) Acetone	Not applicable for mixtures Bioconcentration Factor (BCF): 0,69 The product is not bioaccumulating.
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.
SECTION 13: Disposal considerat	ions

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: ΙΑΤΑ 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 2.1 Label(s): 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 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: none

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: none

National Regulations

Water Hazard Class (WGK):	WGK 1: slightly water-endangering.
15.2 Chemical safety as-	No Chemical Safety Assessment has been carried ou

sessment:

No Chemical Safety Assessment has been carried out.

Revision Information:

SECTION 16: Other information

Vertical lines in the margin indicate an amendment.

Wording of the H-state EUH066 H222 H225 H229 H280 H319 H336	ements in section 2 and 3 Repeated exposure may cause skin dryness or cracking. Extremely flammable aerosol. Highly flammable liquid and vapor. Pressurized container: May burst if heated. Contains gas under pressure; may explode if heated. Causes serious eye irritation. 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 simi- lar mixtures" - Expert Judgement
Revision Date: Disclaimer:	02.12.2022 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.