BRAKE PROTECTION HT SPRAY - 200 ML

Version	Revision Date:	SDS Number:	Date of last issue: 28.07.2023
7.2	09.10.2023	11088499-00011	Date of first issue: 11.06.2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name	:	BRAKE PROTECTION HT SPRAY - 200 ML
Product code	:	0893816001
Unique Formula Identifier (UFI)	:	JQW8-F0CJ-D000-TRK6

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

Use of the Sub-stance/Mixture	:	Processing aid Professional use product
Recommended restrictions on use	:	Not applicable

1.3 Details of the supplier of the safety data sheet

Company	:	Adolf Wuerth GmbH & Co. KG Reinhold-Würth-Str. 12-17 74653 Künzelsau
Telephone	:	+49 794015 0
Telefax	:	+49 794015 10 00
E-mail address of person responsible for the SDS	:	isi@wuerth.com

1.4 Emergency telephone number

+49 (0)6132 – 84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 3	H229: Pressurised container: May burst if heated.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Signal word : Warning

Hazard statements : H229 Pressurised container: May burst if heated.

Precautionary statements : **Prevention:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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.

2.3 Other hazards

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.

Ecological information: 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.

Toxicological information: 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

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Benzene, mono-C10-13-alkyl derivs., distn. residues	84961-70-6 284-660-7	Asp. Tox. 1; H304	>= 10 - < 20
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6 271-529-4	Acute Tox. 4; H302 Acute Tox. 4; H312 Eye Irrit. 2; H319 Aquatic Chronic 4; H413 --- Acute toxicity estimate Acute oral toxicity: 300,03 mg/kg Acute dermal toxicity: 1.001 mg/kg	>= 1 - < 2,5
Benzenesulfonic acid, mono-C16-	70024-69-0	Aquatic Chronic 4;	>= 1 - < 2,5

24-alkyl derivs.,calcium salts	274-263-7	H413	
Substances with a workplace exposure limit :			
Quartz	14808-60-7 238-878-4		>= 1 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : In case of contact, immediately flush skin with plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	:	Exposure to combustion products may be a hazard to health. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.
Hazardous combustion products	:	Carbon oxides Metal oxides Silicon oxides Oxides of phosphorus Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

6.2 Environmental precautions

Environmental precautions	:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absor-

bent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	Use only with adequate ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Avoid inhalation of vapour or mist. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take care to prevent spills, waste and minimize release to the environment.
Hygiene measures	:	If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not pierce or burn, even after use. Keep cool. Protect from sunlight.
Advice on common storage	:	Do not store with the following product types: Self-reactive substances and mixtures Organic peroxides Oxidizing agents Flammable solids Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Substances and mixtures, which in contact with water, emit flammable gases

Explosives
Gases

Storage class (TRGS 510) : 2B

Recommended storage temperature : < 40 °C

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Talc	14807-96-6	AGW (Inhalable fraction)	10 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Alveolate fraction)	1,25 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
Residual oils (petroleum), hydrotreated	64742-57-0	AGW (Vapour and aerosols)	5 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 4;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
Titanium dioxide	13463-67-7	AGW (Inhalable fraction)	10 mg/m3 (Titanium dioxide)	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Alveolate fraction)	1,25 mg/m3 (Titanium dioxide)	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
Silicon dioxide	7631-86-9	AGW (Inhalable fraction)	4 mg/m3 (Silica)	DE TRGS 900
	Further information: When there is compliance with the OEL and biological			

	tolerance values, there is no risk of harming the unborn child			
Calcium petroleum sulfonates	61789-86-4	AGW (Alveolate fraction)	5 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 4;(II)			
Quartz	14808-60-7	TWA (Respirable dust)	0,1 mg/m3	2004/37/EC
	Further information: Carcinogens or mutagens			

This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.

Titanium dioxide

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Benzene, mono-C10-13-alkyl derivs., distn. residues	Workers	Skin contact	Long-term systemic effects	96 mg/kg bw/day
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	Workers	Inhalation	Long-term systemic effects	11,75 mg/m3
	Workers	Skin contact	Long-term systemic effects	3,33 mg/kg bw/day
	Workers	Skin contact	Long-term local effects	1,03 mg/cm2
	Consumers	Inhalation	Long-term systemic effects	2,9 mg/m3
	Consumers	Skin contact	Long-term systemic effects	1,667 mg/kg bw/day
	Consumers	Skin contact	Long-term local effects	0,513 mg/cm2
	Consumers	Ingestion	Long-term systemic effects	0,8333 mg/kg bw/day
Silicon dioxide	Workers	Inhalation	Long-term systemic effects	4 mg/m3
Calcium petroleum sulfonates	Workers	Inhalation	Long-term systemic effects	11,75 mg/m3
	Workers	Skin contact	Long-term systemic effects	3,33 mg/kg bw/day
	Workers	Skin contact	Long-term local effects	1,03 mg/cm2
	Consumers	Inhalation	Long-term systemic effects	2,9 mg/m3
	Consumers	Skin contact	Long-term systemic effects	1,667 mg/kg bw/day
	Consumers	Skin contact	Long-term local effects	0,513 mg/cm2
	Consumers	Ingestion	Long-term systemic effects	0,8333 mg/kg bw/day
Benzenesulfonic acid, mono-C16-24-alkyl	Workers	Inhalation	Long-term systemic effects	11,75 mg/m3

derivs.,calcium salts				
	Workers	Skin contact	Long-term systemic effects	3,33 mg/kg bw/day
	Workers	Skin contact	Long-term local effects	1,03 mg/cm2
	Consumers	Inhalation	Long-term systemic effects	2,9 mg/m3
	Consumers	Skin contact	Long-term systemic effects	1,667 mg/kg bw/day
	Consumers	Skin contact	Long-term local effects	0,513 mg/cm2
	Consumers	Ingestion	Long-term systemic effects	0,833 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Benzene, mono-C10-13-alkyl derivs., distn. residues	Fresh water	0,000075 mg/l
	Marine water	0,000007 mg/l
	Intermittent use/release	0,001 mg/l
	Sewage treatment plant	2 mg/l
	Fresh water sediment	1761 mg/kg
	Marine sediment	1761 mg/kg
Residual oils (petroleum), hydrotreated	Oral (Secondary Poisoning)	9,33 mg/kg food
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	Fresh water	1 mg/l
	Freshwater - intermittent	10 mg/l
	Marine water	1 mg/l
	Sewage treatment plant	1000 mg/l
	Oral (Secondary Poisoning)	16,667 mg/kg food
Calcium petroleum sulfonates	Fresh water	1 mg/l
	Marine water	1 mg/l
	Intermittent use/release	10 mg/l
	Sewage treatment plant	1000 mg/l
	Fresh water sediment	226000000 mg/kg
	Marine sediment	226000000 mg/kg
	Soil	271000000 mg/kg
	Oral (Secondary Poisoning)	16,667 mg/kg food
Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts	Fresh water	1 mg/l
	Freshwater - intermittent	10 mg/l
	Marine water	1 mg/l
	Sewage treatment plant	1000 mg/l
	Fresh water sediment	226000000 mg/kg dry weight (d.w.)

	Marine sediment	226000000 mg/kg dry weight (d.w.)
	Soil	271000000 mg/kg dry weight (d.w.)
	Oral (Secondary Poisoning)	16,667 mg/kg food

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

Eye/face protection : Wear the following personal protective equipment:
Safety glasses
Equipment should conform to DIN EN 166

Hand protection

Material : Nitrile rubber
Break through time : < 480 min
Glove thickness : 0,45 mm
Directive : Equipment should conform to DIN EN 374

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Skin and body protection : Skin should be washed after contact.

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
Equipment should conform to DIN EN 14387

Filter type : Combined particulates and organic vapour type (A-P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Aerosol containing a compressed gas

Propellant : Air

Colour	:	grey
Odour	:	characteristic
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	Not applicable
Flammability (solid, gas)	:	Not classified as a flammability hazard
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	substance/mixture is non-soluble (in water)
Viscosity		
Viscosity, kinematic	:	Not applicable
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	Not applicable

Density	:	1,4597 g/cm³ (20 °C)
Relative vapour density	:	Not applicable
Particle characteristics		
Particle size	:	Not applicable

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Evaporation rate	:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	If the temperature rises there is danger of the vessels bursting due to the high vapor pressure. Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid	:	None known.

10.5 Incompatible materials

Materials to avoid	:	Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Information on likely routes of exposure	:	Inhalation Skin contact Ingestion

Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 2.000 mg/kg Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 2.000 mg/kg Method: Calculation method

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Acute oral toxicity	:	LD50 (Rat): > 2.000 mg/kg Method: OECD Test Guideline 401 Assessment: The substance or mixture has no acute oral toxicity
Acute dermal toxicity	:	LD50 (Rat, male): > 3.600 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on data from similar materials

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Acute oral toxicity	:	LD50 (Rat): > 300 - 2.000 mg/kg Remarks: Based on data from similar materials
Acute inhalation toxicity	:	LC50 (Rat): > 1,9 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Remarks: Based on data from similar materials
Acute dermal toxicity	:	LD50 (Rabbit): > 1.000 - 2.000 mg/kg Remarks: Based on data from similar materials

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Acute oral toxicity	:	LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 401 Remarks: Based on data from similar materials
Acute inhalation toxicity	:	LC50 (Rat): > 1,23 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: Based on data from similar materials
Acute dermal toxicity	:	LD50 (Rat): > 5.000 mg/kg Remarks: Based on data from similar materials

Quartz:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Mild skin irritation

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Species : Rabbit
Result : No skin irritation
Remarks : Based on data from similar materials

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Species : Rabbit
Method : OECD Test Guideline 405
Result : No eye irritation

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Result : Irritation to eyes, reversing within 21 days

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Test Type	:	Human repeat insult patch test (HRIPT)
Exposure routes	:	Skin contact
Result	:	negative
Remarks	:	Based on data from similar materials

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Test Type	:	Human repeat insult patch test (HRIPT)
Exposure routes	:	Skin contact
Result	:	negative

Germ cell mutagenicity

Not classified based on available information.

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Genotoxicity in vitro : Test Type: Ames test
Result: negative

Test Type: Chromosomal aberration
Method: OECD Test Guideline 473
Result: negative
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: Based on data from similar materials

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified based on available information.

Components:

Quartz:

Species : Humans
Application Route : inhalation (dust/mist/fume)
Result : positive
Remarks : This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.

Reproductive toxicity

Not classified based on available information.

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Effects on fertility : Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 415
Result: negative
Remarks: Based on data from similar materials

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Effects on fertility : Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 415
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 415
Result: negative
Remarks: Based on data from similar materials

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Species : Rat
NOAEL : 45 mg/kg
LOAEL : 360 mg/kg

Application Route	:	Ingestion
Exposure time	:	90 Days
Remarks	:	Based on data from similar materials

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Species	:	Rat
NOAEL	:	> 300 mg/kg
Application Route	:	Ingestion
Exposure time	:	29 Days
Method	:	OECD Test Guideline 407
Remarks	:	Based on data from similar materials

Species	:	Rat
NOAEL	:	> 600 mg/kg
Application Route	:	Skin contact
Exposure time	:	28 Days
Method	:	OECD Test Guideline 410
Remarks	:	Based on data from similar materials

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Species	:	Rat
NOAEL	:	> 300 mg/kg
Application Route	:	Ingestion
Exposure time	:	29 Days
Method	:	OECD Test Guideline 407
Remarks	:	Based on data from similar materials

Species	:	Rat
NOAEL	:	> 600 mg/kg
Application Route	:	Skin contact
Exposure time	:	28 Days
Method	:	OECD Test Guideline 410
Remarks	:	Based on data from similar materials

Quartz:

Species	:	Humans
LOAEL	:	0,053 mg/m3
Application Route	:	inhalation (dust/mist/fume)
Remarks	:	This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.

Aspiration toxicity

Not classified based on available information.

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : 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

12.1 Toxicity

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,4 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic plants : ErC50 (Scenedesmus quadricauda (Green algae)): > 2,08 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility

NOEC (Scenedesmus quadricauda (Green algae)): >= 2,08 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: > 1 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Remarks: No toxicity at the limit of solubility
Based on data from similar materials

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

NOELR (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 : > 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Toxicity to fish : LL50 (Cyprinodon variegatus (sheepshead minnow)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

NOELR (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 : > 100 mg/l
Exposure time: 3 h

Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Quartz:

Ecotoxicology Assessment

Acute aquatic toxicity : No toxicity at the limit of solubility

Chronic aquatic toxicity : No toxicity at the limit of solubility

12.2 Persistence and degradability

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 28 %
Exposure time: 28 d

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Biodegradability : Result: Not readily biodegradable.
Method: OECD Test Guideline 301D
Remarks: Based on data from similar materials

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Biodegradability : Result: Not readily biodegradable.
Method: OECD Test Guideline 301D
Remarks: Based on data from similar materials

12.3 Bioaccumulative potential

Components:

Benzene, mono-C10-13-alkyl derivs., distn. residues:

Partition coefficient: n-octanol/water : log Pow: > 4

Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts:

Partition coefficient: n-octanol/water : log Pow: > 4

Benzenesulfonic acid, mono-C16-24-alkyl derivs.,calcium salts:

Partition coefficient: n-octanol/water : log Pow: > 4
Method: OECD Test Guideline 107

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

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.

12.6 Endocrine disrupting properties

Product:

Assessment : 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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
Do not dispose of waste into sewer.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.
Please ensure aerosol cans are sprayed completely empty (including propellant)

Waste Code : The following Waste Codes are only suggestions:

used product
16 05 04, gases in pressure containers (including halons) containing hazardous substances

unused product
16 05 04, gases in pressure containers (including halons) containing hazardous substances

uncleaned packagings
15 01 04, metallic packaging

Acc. Packaging Act properly emptied packaging:
Properly emptied, non-contaminated packaging of non-

hazardous products can be supplied to a system for the collection of sales packaging.

SECTION 14: Transport information

14.1 UN number or ID number

ADN	:	UN 1950
ADR	:	UN 1950
RID	:	UN 1950
IMDG	:	UN 1950
IATA	:	UN 1950

14.2 UN proper shipping name

ADN	:	AEROSOLS
ADR	:	AEROSOLS
RID	:	AEROSOLS
IMDG	:	AEROSOLS
IATA	:	Aerosols, non-flammable

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADN	:	2	2.2
ADR	:	2	2.2
RID	:	2	2.2
IMDG	:	2.2	
IATA	:	2.2	

14.4 Packing group

ADN

Packing group	:	Not assigned by regulation
Classification Code	:	5A
Labels	:	2.2

ADR

Packing group	:	Not assigned by regulation
Classification Code	:	5A
Labels	:	2.2
Tunnel restriction code	:	(E)

RID

Packing group	:	Not assigned by regulation
Classification Code	:	5A
Hazard Identification Number	:	20
Labels	:	2.2

IMDG

Packing group	:	Not assigned by regulation
Labels	:	2.2
EmS Code	:	F-D, S-U

IATA (Cargo)

Packing instruction (cargo aircraft)	:	203
Packing instruction (LQ)	:	Y203
Packing group	:	Not assigned by regulation
Labels	:	Non-flammable, non-toxic Gas

IATA (Passenger)

Packing instruction (passenger aircraft)	:	203
Packing instruction (LQ)	:	Y203
Packing group	:	Not assigned by regulation
Labels	:	Non-flammable, non-toxic Gas

14.5 Environmental hazards

ADN

Environmentally hazardous	:	no

ADR

Environmentally hazardous	:	no

RID

Environmentally hazardous	:	no

IMDG

Marine pollutant	:	no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Remarks	:	Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 75 If you intend to use this product as tattoo ink, please contact your vendor. Substance(s) or mixture(s) are listed

here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

Water hazard class (Germany) : WGK 1 slightly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) :
5.2.1: Total dust:
Not applicable
5.2.2: Inorganic substances in powdered form:
Not applicable
5.2.4: Inorganic substances in gaseous form:
Not applicable
5.2.5: Organic Substances:
Not applicable
5.2.7.1.1: Carcinogenic substance:
Not applicable
5.2.7.1.1: Quartz fine dust PM4:
others: 1,07 % Quartz
5.2.7.1.1: Formaldehyde:
Not applicable
5.2.7.1.1: fibres:
Not applicable
5.2.7.2: Poorly degradable, easily enrichable and highly toxic organic substances:
Not applicable

Volatile organic compounds	:	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 0 %
Contains a substance which is subject to the TRGS 907 list of sensitizing substances.	:	Castor oil

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Other information	:	Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements

H302	:	Harmful if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H312	:	Harmful in contact with skin.
H319	:	Causes serious eye irritation.
H413	:	May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Eye Irrit.	:	Eye irritation
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
2004/37/EC / TWA	:	Long term exposure limit
DE TRGS 900 / AGW	:	Time Weighted Average

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; 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

Further information

Sources of key data used to compile the Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/

Classification of the mixture:		**Classification procedure:**
Aerosol 3	H229	Based on product data or assessment

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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