SAFETY DATA SHEET

according to Commission Regulation (EU) 2020/878 as amended

CERAMIC PASTE

Creation date	13th March 2023		
Revision date		Version	5.0

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

1.1. Product identifier — CERAMIC PASTE

Substance / mixture	mixture
Number	1 05.0005
UFI	GV33-F8GM-HY08-1AT3

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

Mixture's intended use

Grease.

Main intended use

PC-TEC-11 Lubricants, greases, release agents

Mixture uses advised against

The product should not be used in ways other than those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Supplier

Name or trade name	RETECH, s.r.o.
Address	Vackova 1541/4, Praha 5 - Stodůlky, 155 00 Czech Republic
Identification number (CRN)	25018205
VAT Reg No	CZ25018205
Phone	+420327596428
E-mail	info@retech.cz
Web address	www.retech.com

Competent person responsible for the safety data sheet

Name	RETECH, s.r.o.
E-mail	info@retech.cz

1.4. Emergency telephone number

European emergency number: 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Aerosol 1, H229, H222

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Pressurised container: May burst if heated. Extremely flammable aerosol.

2.2. Label elements

Hazard pictogram

Signal word

Danger

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

Precautionary statements

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.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C.

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 022-006-00-2 CAS: 13463-67-7 EC: 236-675-5 Registration number: 01-2119489379-17	titanium dioxide	2,922-<4,87	Carc. 2, H351 (inhalation) Specific concentration limit: ATE Inhalation (dust/mist) = 6,8 mg/l ATE Dermal = 10000 mg/kg bw ATE Oral = 10000 mg/kg bw	2, 3, 4
Index: 601-004-00-0 CAS: 75-28-5 EC: 200-857-2 Registration number: 01-2119485395-27	isobutane	<2,47	Flam. Gas 1A, H220 Press. Gas (liquefied gas), H280	
Index: 601-003-00-5 CAS: 74-98-6 EC: 200-827-9 Registration number: 01-2119486944-21	propane	<2,47	Flam. Gas 1, H220 Press. Gas (liquefied gas), H280	1
Index: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7 Registration number: 01-2119474691-32	butane	<2,47	Flam. Gas 1, H220 Press. Gas (liquefied gas), H280	
CAS: 68584-23-6 EC: 271-529-4 Registration number: 01-2119492627-25	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	0,974-<2,922	Skin Sens. 1B, H317 Specific concentration limit: ATE Inhalation (dust/mist) = 5 mg/l ATE Dermal = 5000 mg/kg bw ATE Oral = 5000 mg/kg bw Skin Sens. 1B, H317: C ≥ 10 %	
CAS: 61789-86-4 Registration number: 01-2119488992-18	Sulfonic acids, petroleum, calcium salts	0,0974-<0,974	Skin Sens. 1B, H317 Specific concentration limit: ATE Inhalation (dust/mist) = 5 mg/l Skin Sens. 1B, H317: C ≥ 10 %	
CAS: 70024-69-0 EC: 274-263-7 Registration number: 01-2119492616-28	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	0,0974-<0,974	Specific concentration limit: ATE Inhalation (dust/mist) = 5 mg/l ATE Dermal = 4000 mg/kg bw ATE Oral = 16000 mg/kg bw	

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 1471316-72-9 EC: 939-603-7 Registration number: 01-2119978241-36	Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts	0,0974-<0,974	Skin Sens. 1B, H317 Specific concentration limit: ATE Dermal = 2000 mg/kg bw ATE Oral = 10000 mg/kg bw Skin Sens. 1B, H317: C ≥ 10 %	
Index: 601-002-00-X CAS: 74-84-0 EC: 200-814-8	ethane	<0,052	Flam. Gas 1, H220 Press. Gas (liquefied gas), H280	1
Index: 601-085-00-2 CAS: 78-78-4 EC: 201-142-8	isopentane	<0,052	Flam. Liq. 1, H224 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411 EUH066	5

Notes

1 Note U (Table 3): When put on the market gases have to be classified as "Gases under pressure", in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned:

Press. Gas (Comp.)
Press. Gas (Liq.)
Press. Gas (Ref. Liq.)
Press. Gas (Diss.)

Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

2 Note V: If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied.

3 Note W: It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

This note aims to describe the particular toxicity of the substance; it does not constitute a criterion for classification according to this Regulation.

4 Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

5 A substance for which exposure limits are set.

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. Do not provide anything by mouth if the person is unconscious or if having cramps.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

If on skin

Remove contaminated clothes. And wash it before reuse. Wash the affected area with plenty of water, lukewarm if possible. In the event of issues, find medical advice.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. In the event of issues, find medical advice.

If swallowed

DO NOT INDUCE VOMITING! Provide medical treatment.

4.2. Most important symptoms and effects, both acute and delayed

If inhaled

Dizziness, headaches, nausea.

If on skin

Possible irritation.

If in eyes

not available

If swallowed

not available

4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment. For persons with no symptoms, call the Toxicological Information Centre to decide about the need of medical treatment; provide information about the substances or composition of the product from the original packaging or the Safety Data Sheet of the product. Symptoms of poisoning may manifest after many hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam. Powder. Water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

Pressurised container: May burst if heated. In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Aldehydes. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Do not breathe smoke. Move containers from fire area if safe to do. Use a self-contained breathing apparatus and full -body protective clothing. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. Pressurised container: May burst if heated. Extremely flammable aerosol. Remove all ignition sources. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale aerosols.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Prevent other leakage. Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. After removal of the product, wash the contaminated site with plenty of water.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use non-sparking tools. Do not inhale aerosols. No smoking. Protect against direct sunlight. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Do not eat, drink or smoke when using this product. Prevent contact with skin and eyes. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Do not handle until all safety precautions have been read and understood.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Content	Packaging type	Material of package
200 ml	pressure receptacle / gas container	ALU

The specific requirements or rules relating to the substance/mixture

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances. Do not store together with food, drink and animal feed.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union **Commission Directive 2006/15/EC**

Substance name (component)	Type	Value
isopentane (CAS: 78-78-4)	OEL 8 hours	3000 mg/m³
	OEL 8 hours	1000 ppm

DNEL

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

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	11.75 mg/m³	Chronic effects systemic		
Workers	Dermal	3.33 mg/kg bw/day	Chronic effects systemic		
Workers	Dermal	1.03 mg/cm²	Chronic effects local		
Consumers	Inhalation	2.9 mg/m³	Chronic effects systemic		
Consumers	Dermal	1.667 mg/kg bw/day	Chronic effects systemic		
Consumers	Dermal	0.513 mg/cm²	Chronic effects local		
Consumers	Oral	0.833 mg/kg bw/day	Chronic effects local		

Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	35.26 mg/m³	Chronic effects systemic		
Workers	Dermal	25 mg/kg bw/day	Chronic effects systemic		
Workers	Dermal	1.04 mg/cm²	Acute effects local		
Consumers	Inhalation	8.7 mg/m³	Chronic effects systemic		
Consumers	Dermal	12.5 mg/kg bw/day	Chronic effects systemic		
Consumers	Dermal	0.518 mg/cm²	Acute effects local		
Consumers	Oral	2.5 mg/kg bw/day	Chronic effects systemic		

Sulfonic acids, petroleum, calcium salts

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	11.75 mg/m³	Chronic effects systemic		
Workers	Dermal	3.33 mg/kg bw/day	Chronic effects systemic		
Workers	Dermal	1.03 mg/cm²	Chronic effects local		
Consumers	Inhalation	2.9 mg/m³	Chronic effects systemic		
Consumers	Dermal	1.667 mg/kg bw/day	Chronic effects systemic		
Consumers	Dermal	0.513 mg/cm²	Chronic effects local		
Consumers	Dermal	0.833 mg/kg bw/day	Chronic effects systemic		

PNEC

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

Route of exposure	Value	Value determination	Source
Freshwater environment	1 mg/l		
Water (intermittent release)	10 mg/l		
Marine water	1 mg/l		
Freshwater sediment	226000000 mg/kg of food		
Sea sediments	226000000 mg/kg of food		
Soil (agricultural)	271000000 mg/kg of dry substance of soil		
Food chain	16.667 mg/kg of dry substance of sediment		
Microorganisms in sewage treatment	1000 mg/l		

Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts

Route of exposure	Value	Value determination	Source
Freshwater environment	0.1 mg/l		
Seawater (intermittent release)	1 mg/l		
Marine water	0.1 mg/l		
Freshwater sediment	45211 mg/kg of food		
Sea sediments	45211 mg/kg of food		
Microorganisms in sewage treatment	1000 mg/l		
Soil (agricultural)	36739.74 mg/kg of dry substance of soil		

Sulfonic acids, petroleum, calcium salts

Route of exposure	Value	Value determination	Source
Freshwater environment	1 mg/l		

Sulfonic acids, petroleum, calcium salts

Route of exposure	Value	Value determination	Source
Water (intermittent release)	10 mg/l		
Marine water	1 mg/l		
Freshwater sediment	226000000 mg/kg		
Sea sediments	226000000 mg/kg		
Food chain	16.667 mg/kg		
Microorganisms in sewage treatment	1000 mg/l		
Soil (agricultural)	271000000 mg/kg		

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Tightly sealed goggles. EN166 - Personal Eye Protection Standard.

Skin protection

Hand protection: Protective gloves resistant to the product. EN ISO 374-1. Material of gloves: Nitrile rubber, NBR. Penetration time of glove material: 480 min. Recommended thickness of the material: >0.4 mm. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Use barrier creams for skin protection. Other protection: protective workwear. Take off contaminated clothing. And wash it before reuse.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filter AX.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	grey
Odour	characteristic
Melting point/freezing point	-188--138 °C (hnací plyn)
Boiling point or initial boiling point and boiling range	>100 °C
Boiling point or initial boiling point and boiling range	-42-0 °C (hnací plyn)
Flammability	data not available
Lower and upper explosion limit	
bottom	1,5 % (hnací plyn)
upper	10,9 % (hnací plyn)
Flash point	>63 °C (ISO 3679)
Flash point	-104--60 °C (hnací plyn)
Auto-ignition temperature	365-470 °C (hnací plyn)
Decomposition temperature	data not available
pH	non-soluble (in water)
Kinematic viscosity	data not available
Solubility in water	insoluble
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	2200-8400 hPa at 20 °C (hnací plyn)
Density and/or relative density	
Density	1,314 g/cm³ at 20 °C (DIN 51757)
Density	0,5-0,58 g/cm³ at 20 °C (hnací plyn)
Relative vapour density	data not available

Particle characteristics	data not available
Form	cream / paste

9.2. Other information

not available

SECTION 10: Stability and reactivity

10.1. Reactivity

When used in the standard way, there is not any dangerous reaction with other substances.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

Protect against flames, sparks, overheating. No smoking. Take action to prevent static discharges. Pressurised container: May burst if heated.

10.5. Incompatible materials

Strong oxidizing agents. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire. Aldehydes.

SECTION 11: Toxicological information

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

No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

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

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}		>5000 mg/kg		Rat			
Dermal	LD_{50}		>5000 mg/kg		Rat			
Inhalation (dust/mist)	LD_{50}		>5 mg/l	4 hours	Rat			
Inhalation (dust/mist)	ATE		5 mg/l					
Dermal	ATE		5000 mg/kg bw					
Oral	ATE		5000 mg/kg bw					

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

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}		>16000 mg/kg		Rat		Literary studies	1981 Section 772.112 -21 CFR 40
Dermal	LD_{50}		>4000 mg/kg		Rabbit		Literary studies	1986 40 CFR, Section 163.81-2, Federal
Inhalation (dust/mist)	LC_{50}		>5 mg/l	4 hours	Rat			

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

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Inhalation (dust/mist)	ATE		5 mg/l					
Dermal	ATE		4000 mg/kg bw					
Oral	ATE		16000 mg/kg bw					

Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}		>10000-<20000 mg/kg		Rat		Literary studies	1972 Adult albino male Sprague-Dawley rats we
Dermal	LD_{50}	OECD 402	>2000 mg/kg		Rat		Literary studies	1989
Dermal	ATE		2000 mg/kg bw					
Oral	ATE		10000 mg/kg bw					

Sulfonic acids, petroleum, calcium salts

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}		>16000 mg/kg		Rat		Literary studies	1981 Section 772.112 -21 CFR 40
Dermal	LD_{50}	OECD 402	>5000 mg/kg		Rabbit		Literary studies	1981
Inhalation (dust/mist)	LC_{50}		5 mg/kg		Rat			
Inhalation (dust/mist)	ATE		5 mg/l					

titanium dioxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD_{50}		>10000 mg/kg		Rat			
Dermal	LD_{50}		>10000 mg/kg		Rabbit			
Inhalation (dust/mist)	LC_{50}		>6.8 mg/l	4 hours	Rat			
Inhalation (dust/mist)	ATE		6.8 mg/l					
Dermal	ATE		10000 mg/kg bw					
Oral	ATE		10000 mg/kg bw					

Skin corrosion/irritation

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation
Based on available data the classification criteria are not met.
Germ cell mutagenicity
Carcinogenicity
Based on available data the classification criteria are not met.
Reproductive toxicity
Based on available data the classification criteria are not met.
Toxicity for specific target organ - single exposure
Based on available data the classification criteria are not met.
Toxicity for specific target organ - repeated exposure
Based on available data the classification criteria are not met.
Aspiration hazard
Based on available data the classification criteria are not met.

11.2. Information on other hazards
The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

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

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}		>10000 mg/kg	96 hours	Fish (Oncorhynchus mykiss)			
ErC_{50}		>1000 mg/kg	96 hours	Algae (Scenedesmus subspicatus)			
EC_{50}		>1000 mg/kg	48 hours	Daphnia (Daphnia magna)			

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

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}		>10000 mg/l	96 hours	Fish (Oncorhynchus mykiss)			
ErC_{50}	EPA OTS 797.1050	>1000 mg/l	72 hours	Algae (Selenastrum capricornutum)			REACH registration dossier
EC_{50}	EPA OTS 797.1300	>1000 mg/l	48 hours	Daphnia (Daphnia magna)			REACH registration dossier
EC_{50}	OECD 209	>10000 mg/l	3 hours	Bacteria	Activated sludge		REACH registration dossier

Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}		>100 mg/l	96 hours	Fish (Oncorhynchus mykiss)			

Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
ErC_{50}	EPA OTS 797.1050	>1000 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)		Literary studies	1994
EC_{50}	EPA OTS 797.1300	>1000 mg/l	48 hours	Daphnia (Daphnia magna)		Literary studies	1993
EC_{50}	OECD 209	>10000 mg/l	3 hours	Bacteria	Activated sludge	Literary studies	1994

butane

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}		49.9 mg/l	96 hours	Fish			
EC_{50}		19.37 mg/l	96 hours	Algae			

isobutane

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}		49.9 mg/l	96 hours	Fish			
EC_{50}		19.37 mg/l	96 hours	Algae			

propane

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}		49.9 mg/l	96 hours	Fish			
EC_{50}		19.37 mg/l	96 hours	Algae			

Sulfonic acids, petroleum, calcium salts

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}		>10000 mg/kg	96 hours	Fish (Pimephales promelas)			
ErC_{50}	EPA OTS 797.1050	>1000 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)		Literary studies	1994
EC_{50}	EPA OTS 797.1300	>1000 mg/l	48 hours	Daphnia (Daphnia magna)		Literary studies	1993
EC_{50}	OECD 209	>10000 mg/l	48 hours	Bacteria	Activated sludge	Literary studies	1994

titanium dioxide

Parameter	Method	Value	Exposure time	Species	Environment	Value determination	Source
LC_{50}		>100 mg/l	96 hours	Fish (Oncorhynchus mykiss)			
ErC_{50}		61 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)			
EC_{50}		>10 mg/l	48 hours	Daphnia (Daphnia pulex)			

Chronic toxicity

titanium dioxide

Parameter	Value	Exposure time	Species	Environment
NOEC	>1000 mg/l	2 days	Fish (Leuciscus idus)	
NOEC	1 mg/l	3 days	Algae (Pseudokirchneriella subcapitata)	
NOEC	>3 mg/l	30 days	Daphnia (Daphnia magna)	

12.2. Persistence and degradability

not available

12.3. Bioaccumulative potential

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

Parameter	Value	Exposure time	Species	Environment	Temperature [°C]	Value determination	Source
Log Pow	18.08						

Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts

Parameter	Value	Exposure time	Species	Environment	Temperature [°C]	Value determination	Source
Log Pow	>6.91						
BCF	70.8 mg/kg	96 hours	Fish			Literary studies	2013

Sulfonic acids, petroleum, calcium salts

Parameter	Value	Exposure time	Species	Environment	Temperature [°C]	Value determination	Source
Log Pow	>4.46						

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

12 01 12 spent waxes and fats *

Packaging waste type code

15 01 10 packaging containing residues of or contaminated by hazardous substances *

(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information

14.1. UN number or ID number

UN 1950

14.2. UN proper shipping name

AEROSOLS

14.3. Transport hazard class(es)

2 Gases

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

Additional information

Hazard identification No.	
UN number	1950
Classification code	5F
Safety signs	2.1

Marine transport - IMDG

EmS (emergency plan)	F-D, S-U

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

not available

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H224	Extremely flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.

H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

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.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C.

A list of additional standard phrases used in the safety data sheet

EUH066	Repeated exposure may cause skin dryness or cracking.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC_{50}	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC_{50}	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD_{50}	Lethal dose of a substance in which it can be expected death of 50% of the population
log Kow	Octanol-water partition coefficient
NOEC	No observed effect concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
Press. Gas (Comp.)	Gas under pressure: compressed gas
Press. Gas (Diss.)	Gas under pressure: dissolved gas
Press. Gas (Liq.)	Gas under pressure: liquefied gas
Press. Gas (Ref. Liq.)	Gas under pressure: refrigerated liquefied gas
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds

vPvB	Very Persistent and very Bioaccumulative
Aerosol	Aerosol
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Asp. Tox.	Aspiration hazard
Carc.	Carcinogenicity
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
Press. Gas	Gases under pressure
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

More information

Classification procedure - calculation method.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.