

Safety Data Sheet according to (EC) No 1907/2006 as amended

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TEROSON MS 9380 WH

SDS No. : 633028 V009.0 Revision: 04.11.2022 printing date: 23.12.2022 Replaces version from: 26.05.2022

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

- **1.1. Product identifier** TEROSON MS 9380 WH
- **1.2. Relevant identified uses of the substance or mixture and uses advised against** Intended use: MS Adhesive
- **1.3.** Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA Henkelstr. 67 40589 Düsseldorf

Germany

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For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Chronic hazards to the aquatic environment H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):

Hazard statement:	H412 Harmful to aquatic life with long lasting effects.
Supplemental information	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Precautionary statement: Prevention	P273 Avoid release to the environment.

Category 3

2.3. Other hazards

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration >= 0,1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in concentration \geq the concentration limit that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7 236-675-5 01-2119489379-17	5- < 10 %			
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9 258-207-9 01-2119537297-32	0,1-< 1 %	Repr. 2, H361f Eye Dam. 1, H318 Aquatic Chronic 2, H411 Aquatic Acute 1, H400	M acute = 1	
ethylenebis(oxyethylene) bis[3- (5-tert-butyl-4-hydroxy-m- tolyl)propionate] 36443-68-2 253-039-2 01-2119956160-44	0,01-< 0,25 %	Aquatic Chronic 1, H410	M chronic = 10	

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact: Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

No data available.

4.3. Indication of any immediate medical attention and special treatment needed See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons: High pressure waterjet

5.2. Special hazards arising from the substance or mixture In case of fire toxic gases can be released.5.3. Advice for firefighters

Wear self-contained breathing apparatus. Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Wear protective equipment.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up Remove mechanically.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Temperatures between + 10 °C and + 25 °C

7.3. Specific end use(s) MS Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Germany

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Calcium carbonate 471-34-1			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Calcium carbonate 471-34-1		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Calcium carbonate 471-34-1		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Titanium dioxide 13463-67-7			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Titanium dioxide 13463-67-7		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Titanium dioxide 13463-67-7		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5		4	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Silicon dioxide 112945-52-5		10	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Silicon dioxide 112945-52-5		1,25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	aqua (freshwater)		0,004 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	aqua (marine water)		0,00038 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Freshwater - intermittent		0,007 mg/l				
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	sediment (freshwater)				5,9 mg/kg		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	sediment (marine water)				0,59 mg/kg		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Soil				1,18 mg/kg		
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	sewage treatment plant (STP)		1 mg/l				
Ethylenebis(oxyethylene) bis[3-(5-tert-butyl- 4-hydroxy-m-tolyl)propionate] 36443-68-2	sewage treatment plant (STP)		1 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9		dermal	Long term exposure - systemic effects		1,8 mg/kg	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Workers	Inhalation	Long term exposure - systemic effects		1,27 mg/m3	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	General population	Inhalation	Long term exposure - systemic effects		0,31 mg/m3	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	General population	dermal	Long term exposure - systemic effects		0,9 mg/kg	
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	General population	oral	Long term exposure - systemic effects		0,18 mg/kg	
Ethylenebis(oxyethylene) bis[3-(5-tert-butyl- 4-hydroxy-m-tolyl)propionate] 36443-68-2	Workers	inhalation	Long term exposure - systemic effects		23,5 mg/m3	
Ethylenebis(oxyethylene) bis[3-(5-tert-butyl- 4-hydroxy-m-tolyl)propionate] 36443-68-2	Workers	dermal	Long term exposure - systemic effects		6,7 mg/kg	
Ethylenebis(oxyethylene) bis[3-(5-tert-butyl- 4-hydroxy-m-tolyl)propionate] 36443-68-2	General population	dermal	Long term exposure - systemic effects		3,3 mg/kg	
Ethylenebis(oxyethylene) bis[3-(5-tert-butyl- 4-hydroxy-m-tolyl)propionate] 36443-68-2	General population	oral	Long term exposure - systemic effects		3,3 mg/kg	
Ethylenebis(oxyethylene) bis[3-(5-tert-butyl- 4-hydroxy-m-tolyl)propionate] 36443-68-2	General population	inhalation	Long term exposure - systemic effects		5,8 mg/m3	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls: Ensure good ventilation/extraction.

Respiratory protection: Ensure good ventilation/suction at the workplace.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Protective goggles Protective eye equipment should conform to EN166.

Skin protection:

Wear protective equipment.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway), or equivalent.

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	solid
Delivery form	paste
Colour	white
Odor	alcohol-like
Melting point	Not applicable, Determination technically not possible
Solidification temperature	Not applicable, Product is a solid.
Initial boiling point	> 250 °C (> 482 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, Product is a solid.
Flash point	Not applicable, Product is a solid.
Auto-ignition temperature	Not applicable, Product is a solid.
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no
	organic peroxide and does not decompose under foreseen
	conditions of use
pH	Not applicable, Product reacts with water.
Viscosity (kinematic)	Not applicable, Product is a solid.
Solubility (qualitative)	Reacts with water.
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable
	Mixture
Vapour pressure	< 0,1 hPa
(20 °C (68 °F))	
Density	1,49 g/cm3 no method
(20 °C (68 °F))	
Bulk density	1,49 g/cm3
Relative vapour density:	Not applicable, Product is a solid.
Particle characteristics	Not applicable, mixture is a paste.

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

No decomposition if used according to specifications.

SECTION 11: Toxicological information

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

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Titanium dioxide $< 1\%$ particles with diameter $\le 10 \ \mu m$ 13463-67-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	LD50	3.700 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4- hydroxy-m- tolyl)propionate] 36443-68-2	LD50	> 7.000 mg/kg	rat	equivalent or similar to OECD Guideline 423 (Acute Oral toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Titanium dioxide $< 1\%$ particles with diameter $\le 10 \ \mu m$ 13463-67-7	LD50	>= 10.000 mg/kg	hamster	not specified
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	LD50	> 3.170 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4- hydroxy-m- tolyl)propionate] 36443-68-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Titanium dioxide $< 1\%$ particles with diameter $\le 10 \ \mu m$ 13463-67-7	LC50	> 6,82 mg/l	dust	4 h	rat	not specified

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Titanium dioxide $< 1\%$ particles with diameter $\le 10 \ \mu m$ 13463-67-7	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	not irritating	24 h	rabbit	EPA OPP 81-5 (Acute Dermal Irritation)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4- hydroxy-m- tolyl)propionate] 36443-68-2	not irritating	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Titanium dioxide $< 1\%$ particles with diameter $\le 10 \ \mu m$ 13463-67-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	corrosive	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4- hydroxy-m- tolyl)propionate] 36443-68-2	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Titanium dioxide < 1% particles with diameter \leq 10 µm 13463-67-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4- hydroxy-m- tolyl)propionate] 36443-68-2	not sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)

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Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Titanium dioxide $< 1\%$ particles with diameter $\le 10 \ \mu m$ 13463-67-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Titanium dioxide < 1% particles with diameter \leq 10 µm 13463-67-7	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Titanium dioxide < 1% particles with diameter \leq 10 µm 13463-67-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Titanium dioxide < 1% particles with diameter ≤ 10 µm 13463-67-7	not carcinogenic	inhalation	24 m 6 h/d; 5 d/w	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Titanium dioxide $< 1\%$ particles with diameter $\le 10 \ \mu m$ 13463-67-7	NOAEL P > 1.000 mg/kg NOAEL F1 > 1.000 mg/kg		oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	NOAEL P 109 mg/kg NOAEL F1 121 mg/kg	two- generation study	oral: feed	rat	OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Titanium dioxide < 1% particles with diameter \leq 10 μ m 13463-67-7	NOAEL 1.000 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	NOAEL 36 mg/kg	oral: feed	daily	rat	other guideline:

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Titanium dioxide $< 1\%$ particles with diameter ≤ 10 μ m 13463-67-7	LC50	Toxicity > Water solubility	48 h	Danio rerio	other guideline:
Titanium dioxide $< 1\%$ particles with diameter ≤ 10 μ m 13463-67-7	NOEC	Toxicity > Water solubility	8 d	Danio rerio	OECD Guideline 212 (Fish, Short-term Toxicity Test on Embryo and Sac-Fry Stages)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	LC50	4,4 mg/l	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	LC50	Toxicity > Water solubility	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	NOEC	0,0088 mg/l	32 d	Pimephales promelas	OECD Guideline 210 (fish early lite stage toxicity test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Titanium dioxide < 1% particles with diameter ≤ 10 μ m 13463-67-7	EC50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	EC50	8,58 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	EC50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	NOEC	0,23 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	NOEC	0,0055 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide $< 1\%$ particles with diameter ≤ 10 μ m 13463-67-7	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Titanium dioxide $< 1\%$ particles with diameter ≤ 10 μ m 13463-67-7	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	EC50	0,705 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	EC10	0,188 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	EC50	Toxicity > Water solubility	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	EU Method C.3 (Algal Inhibition test)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	EC10	Toxicity > Water solubility	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	EU Method C.3 (Algal Inhibition test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide $< 1\%$ particles with diameter ≤ 10 µm 13463-67-7	EC50	Toxicity > Water solubility	3 h	C	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	EC50	> 100 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	IC50	Toxicity > Water solubility	3 h	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	not readily biodegradable.	aerobic	24 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	not readily biodegradable.	aerobic	8 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	> 0,11 - 2,45	56 d		Cyprinus carpio	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Bis(2,2,6,6-tetramethyl-4- piperidyl) sebacate 52829-07-9	0,35	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy- m-tolyl)propionate] 36443-68-2	4,7	23 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Titanium dioxide < 1% particles with diameter ≤ 10 μm 13463-67-7	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 52829-07-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4- hydroxy-m-tolyl)propionate] 36443-68-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09.

SECTION 14: Transport information		
14.1.	UN number or ID number	
	Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.	
14.2.	UN proper shipping name	
	Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.	
14.3.	Transport hazard class(es)	
	Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.	
14.4.	Packing group	
	Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.	
14.5.	Environmental hazards	
	Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.	
14.6.	Special precautions for user	
	Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.	
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		
Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable	
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Not app		
Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable		
VOC content 0 %		
(2010/75/EU)		

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

National regulations/information (Germany):

WGK 1: slightly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510: 11

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H318 Causes serious eye damage.

H361f Suspected of damaging fertility.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very
	bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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