according to Regulation (EC) No. 1907/2006

Carsystem Uniflex MS grau

Version		Revision Date:	Date of last issue: 13.04.2023
2.1	DE / EN	04.10.2023	Date of first issue: 01.06.2022

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

1.1	Product identifier		
	Trade name	:	Carsystem Uniflex MS grau
	Product code	:	159.108
1.2	Relevant identified uses of th	ie s	substance or mixture and uses advised against
	Use of the Sub- stance/Mixture		Adhesives and/or sealants Sealant
	Recommended restrictions on use	:	Industrial use, professional use
1.3	Details of the supplier of the	e sa	ifety data sheet
	Company	:	JASA AG Müslistrasse 43 8957 Spreitenbach Schweiz
			info@jasa-ag.ch, www.jasa-ag.ch
	Telephone Telefax		+41 (0)44 431 60 70 +41 (0)44 432 63 17
	Responsible Department	: F	Productmanagement, Tel: +41 (0)44 431 60 70, sds@jasa-ag.ch

1.4 Emergency telephone

Telephone	: Tox Info Suisse (STIZ), Tel: 145
relephone	

according to Regulation (EC) No. 1907/2006

Carsystem Uniflex MS grau

Version		Revision Date:	Date of last issue: 13.04.2023
2.1	DE / EN	04.10.2023	Date of first issue: 01.06.2022

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

Additional Labeling

EUH210 Safety data sheet available on request.

- EUH208 Contains N-(3-(trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.
- EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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

Chemical nature : Mixture

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
triethyl phosphate	78-40-0	Acute Tox. 4; H302	>= 1 - < 10
	201-114-5	Eye Irrit. 2; H319	
	015-013-00-7		
	01-2119492852-28	Acute toxicity esti-	

according to Regulation (EC) No. 1907/2006

Carsystem Uniflex MS grau

		te of last issue: 13.04.2023 te of first issue: 01.06.2023	-
Hydrocarbons, C10-C13, n- alkanes, <2% aromatics	Not Assigned 929-018-5	mate Acute oral toxicity: 1.600 mg/kg Asp. Tox. 1; H304 EUH066	>= 1 - < 10
titanium dioxide; [in powder form containing 1 % or more of parti- cles with aerodynamic diameter ≤ 10 µm]	01-2119475608-26 13463-67-7 236-675-5 022-006-00-2 01-2119489379-17	Carc. 2; H351	>= 1 - < 10
N-(3- (trimethoxysi- lyl)propyl)ethylenediamine	1760-24-3 217-164-6 01-2119970215-39	Acute Tox. 4; H332 Eye Dam. 1; H318 Skin Sens. 1B; H317 STOT RE 2; H373 Acute toxicity esti- mate Acute inhalation tox- icity (dust/mist): 1,5 mg/l 1,5 mg/l	>= 0,1 - < 1
bis(2,2,6,6-tetramethyl-4-piperidy sebacate	I) 52829-07-9 258-207-9 01-2119537297-32	Eye Dam. 1; H318 Repr. 2; H361f Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1	>= 0,1 - < 0,2

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	:	If you feel unwell, seek medical advice (show the label where possible). Move out of dangerous area. Take off contaminated clothing and shoes immediately. Do not leave the victim unattended. Wash contaminated clothing before re-use.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection and use the recommended protective clothing
If inhaled	:	Inhalation is not regarded as possible exposure path.
		Remove to fresh air.

Carsystem Uniflex MS grau

SECTION 5: Firefighting measures

Versior 2.1	DE / EN	Revision Date: 04.10.2023	Date of last issue: 13.04.2023 Date of first issue: 01.06.2022
		If symptoms pe	rsist, call a physician.
In	case of skin contact		diately with soap and plenty of water. n if irritation develops or persists.
In case of eye contact		for at least 15 n Keep eye wide	open while rinsing. move contact lens, if worn.
lf :	swallowed	: Clean mouth wi Do NOT induce Call a physiciar	•

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.			

5.1	Extinguishing media		
	Suitable extinguishing media	:	Carbon dioxide (CO2) Dry powder Water spray jet Alcohol-resistant foam
	Unsuitable extinguishing media	:	High volume water jet
5.2	Special hazards arising from	the	substance or mixture
	Specific hazards during fire fighting	:	Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.
	Hazardous combustion prod- ucts	:	Hazardous decomposition products due to incomplete com- bustion Carbon monoxide, carbon dioxide and unburned hydrocar- bons (smoke).
5.3	Advice for firefighters		
	Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
	Specific extinguishing meth- ods	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment.
	Further information	:	Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Carsystem Uniflex MS grau

Version 2.1	DE / EN	Revision Da 04.10.2023	
			idues and contaminated fire extinguishing water must osed of in accordance with local regulations.
		In the ev	vent of fire and/or explosion do not breathe fumes.
SECTIO	N 6: Accidental relea	se measure	2S
6.1 Perso	onal precautions, prote	ctive equipm	nent and emergency procedures
Pers	sonal precautions	Wear pe Evacuat Avoid co Material Forms s	der needs to protect himself. ersonal protective equipment. te personnel to safe areas. ontact with skin, eyes and clothing. I can create slippery conditions. slippery/greasy layers with water. hinated surfaces will be extremely slippery.
6.2 Envir	ronmental precautions		
Envi	ronmental precautions	If the pr	flush into surface water or sanitary sewer system. oduct contaminates rivers and lakes or drains inform ive authorities.
6.3 Meth	ods and material for co	ntainment ar	nd cleaning up
Meth	nods for cleaning up	acid bin	o with inert absorbent material (e.g. sand, silica gel, ider, universal binder, sawdust). up and shovel into suitable containers for disposal.
6.4 Refe	rence to other sections		
For perso	onal protection see sectio	n 8., For disp	oosal considerations see section 13.
SECTIO	N 7: Handling and sto	orage	
7.1 Preca	autions for safe handlin	g	
Tecł	nnical measures		that eyewash stations and safety showers are close to kstation location.
Advi	ce on safe handling	practice sessme	in accordance with good industrial hygiene and safety e, based on the results of the workplace exposure as- ent ersonal protective equipment.
	ce on protection against and explosion	: Normal	measures for preventive fire protection.
7.2 Cond	litions for safe storage,	including ar	ny incompatibilities
Req	uirements for storage as and containers	: Store in	o original container. Keep containers tightly closed in a ol and well-ventilated place.

Keep away from direct sunlight.

Carsystem Uniflex MS grau

Vers 2.1	sion	DE / EN		evision Date: I.10.2023	Date of last issue: 13.04.2023 Date of first issue: 01.06.2022
		er information on stor- anditions	:	Storage must be	in accordance with the BetrSichV (Germany).
	Advice	e on common storage	:	Keep away from	food and drink.
	Storag	je class (TRGS 510)	:	10	
7.3	•	c end use(s) ic use(s)	:	No data available	9

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis		
titanium dioxide; [in powder form con- taining 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	13463-67-7	AGW (Inhalable fraction)	10 mg/m3 (Titanium dioxide)	DE TRGS 900		
	Peak-limit 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 1,25 mg/m3 DE TRGS					
		fraction)	(Titanium dioxide)	900		
	Peak-limit 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					

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

Substance name	End Use	Routes of expo-	Potential health ef-	Value	
		sure	fects		
bis(2,2,6,6- tetramethyl-4- piperidyl) sebacate	Workers	Inhalation	Long-term systemic effects	1,27 mg/m3	
	Workers	Skin contact	Long-term systemic effects	1,8 mg/kg bw/day	
	Consumers	Inhalation	Long-term systemic effects	0,31 mg/m3	
	Consumers	Skin contact	Long-term systemic effects	0,9 mg/kg bw/day	
	Consumers	Oral	Long-term systemic effects	0,18 mg/kg bw/day	

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

 Substance name
 Environmental Compartment
 Value

according to Regulation (EC) No. 1907/2006

Carsystem Uniflex MS grau

ersion 1	DE / EN	Revision Date: 04.10.2023	Date of last issue: 13 Date of first issue: 01	
	(3- imethoxysi-)propyl)ethylenediamine	Fresh water		0,05 mg/l
		Sea water		0,005 mg/l
		Sewage treatr	nent plant (STP)	20 mg/l
		Fresh water se		0,181 mg/kg dry weight (d.w.)
		Sea sediment		0,018 mg/kg dry weight (d.w.)
		Soil		0,007 mg/kg dry weight (d.w.)
	(2,2,6,6-tetramethyl-4- peridyl) sebacate	Fresh water		0,004 mg/l
	• /	Sea water		0,00038 mg/l
		Sewage treatr	nent plant (STP)	1 mg/l
		Fresh water se	ediment	5,9 mg/kg dry weight (d.w.)
		Sea sediment		0,59 mg/kg dry weight (d.w.)
		Soil		1,18 mg/kg dry weight (d.w.)

8.2 Exposure controls

Personal protective equipme	nt
Eye/face protection	: Safety glasses with side-shields conforming to EN166
	 butyl-rubber > 480 min >= 0,4 mm DIN EN 374 Class 6
Glove thickness	 Nitrile rubber > 480 min >= 0,3 mm DIN EN 374 Class 6
Remarks	: Gloves should be discarded and replaced if there is any indi- cation of degradation or chemical breakthrough. The data about break through time/strength of material are standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Preventive skin protection
Skin and body protection	 Please wear suitable protective clothing, e.g. made of cotton or heat-resistant synthetic fibres. Long sleeved clothing

Carsystem Uniflex MS grau

/ersion 2.1	DE / EN	Revision Date: 04.10.2023	Date of last issue: 13.04.2023 Date of first issue: 01.06.2022
Respira	atory protection	exposure limit	Il measures to comply with the occupational s. espiratory protective equipment normally re-
Protect	ive measures	located close i Handle in acco	re flushing systems and safety showers are o the working place. ordance with good industrial hygiene and safety d on the results of the workplace exposure

Environmental exposure controls

Soil :	Avoid subsoil penetration.
--------	----------------------------

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	paste
Color	:	gray
Odor	:	characteristic
Melting point/freezing point	:	Not applicable
Initial boiling point and boiling range	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Flash point	:	Not applicable
Autoignition temperature	:	No data available
рН	:	not determined substance/mixture is non-soluble (in water)
Viscosity Viscosity, dynamic	:	ca. 16.000 mPa.s
Viscosity, kinematic	:	No data available
Solubility(ies) Water solubility	:	insoluble
Partition coefficient: n- octanol/water	:	Not applicable

Carsystem Uniflex MS grau

Version 2.1	DE / EN	Revision Date: 04.10.2023	Date of last issue: 13.04.2023 Date of first issue: 01.06.2022		
Vapo	or pressure	: No data avai	able		
Density		: 1,56 g/cm3 (2	: 1,56 g/cm3 (20 °C)		
Relative vapor density		: Not applicabl	e		
9.2 Other information Flammability (liquids)		: not auto-flam	mable		

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if used as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Water

10.6 Hazardous decomposition products

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Nitrogen oxides (NOx)

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Product:

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

Components:

triethyl phosphate:

Acute oral toxicity	:	LD50 Oral (Rat): 1.600 mg/kg
		Method: OECD Test Guideline 401

Acute inhalation toxicity :: LC50 (Rat): > 8.817 mg/l Exposure time: 4 h Test atmosphere: dust/mist Acute dermal toxicity :: LD50 (Rabbit): > 20.000 mg/kg Method: OECD Test Guideline 402 Hydrocarbons, C10-C13, n-alkanes, <2% aromatics: Acute oral toxicity :: Acute oral toxicity :: LD50 Oral (Rat): > 15.000 mg/kg Method: OECD Test Guideline 402 Acute oral toxicity : LC50 (Rat): > 6.100 mg/l Exposure time: 4 h Test atmosphere: vapor Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhala- tion toxicity Acute dermal toxicity : LD50 Dermal (Rabbit): >= 3.160 mg/kg Method: OECD Test Guideline 402 titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter \$ 10 µm]: Acute oral toxicity Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg Acute oral toxicity : LD50 (Rat): > 6.82 mg/l Exposure time: 4 h Test atmosphere: dust/mist Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LD50 Oral (Rat): 2.20	Version 2.1 DE / EN	Revision Date:Date of last issue: 13.04.202304.10.2023Date of first issue: 01.06.2022
Method: OECD Test Guideline 402 Hydrocarbons, C10-C13, n-alkanes, <2% aromatics:	Acute inhalation toxicity	Exposure time: 4 h
Acute oral toxicity : LD50 Oral (Rat): > 15.000 mg/kg Method: OECD Test Guideline 423 Acute inhalation toxicity : LC50 (Rat): > 6.100 mg/l Exposure time: 4 h Test atmosphere: vapor Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhala- tion toxicity Acute dermal toxicity : LD50 Dermal (Rabbit): >= 3.160 mg/kg Method: OECD Test Guideline 402 titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]: Acute oral toxicity Acute inhalation toxicity : LD50 Oral (Rat): > 5.000 mg/kg Acute inhalation toxicity : LD50 (Rat): > 6.82 mg/l Exposure time: 4 h Test atmosphere: dust/mist Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LC50 (Rat): > 1,49 - < 2,44 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Acute inhalation toxicity : LC50 (Rat): > 1,49 - < 2,244 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Acute toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg	Acute dermal toxicity	
Acute oral toxicity : LD50 Oral (Rat): > 15.000 mg/kg Method: OECD Test Guideline 423 Acute inhalation toxicity : LC50 (Rat): > 6.100 mg/l Exposure time: 4 h Test atmosphere: vapor Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhala- tion toxicity Acute dermal toxicity : LD50 Dermal (Rabbit): >= 3.160 mg/kg Method: OECD Test Guideline 402 titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 μm]: Acute oral toxicity Acute inhalation toxicity : LD50 Oral (Rat): > 5.000 mg/kg Acute inhalation toxicity : LD50 (Rat): > 6.82 mg/l Exposure time: 4 h Test atmosphere: dust/mist N-(3-(trimethoxysilyl)propyl)ethylenediamine: Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LD50 Oral (Rat): 2.295 mg/kg . Acute inhalation toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LC50 (Rat): > 1.49 - < 2.44 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Acute toxicity estimate: 1.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method . Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: .	Hydrocarbons, C10-C13,	n-alkanes, <2% aromatics:
Exposure time: 4 h Test atmosphere: vapor Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhala- tion toxicityAcute dermal toxicity:LD50 Dermal (Rabbit): >= 3.160 mg/kg Method: OECD Test Guideline 402titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]: Acute oral toxicity:LD50 Oral (Rat): > 5.000 mg/kgAcute oral toxicity:LD50 (Rat): > 6.82 mg/l Exposure time: 4 h Test atmosphere: dust/mistN-(3-(trimethoxysilyl)propyl)ethylenediamine: Acute oral toxicity:LD50 Oral (Rat): 2.295 mg/kgAcute inhalation toxicity:LD50 Oral (Rat): 2.295 mg/kgAcute inhalation toxicity:LC50 (Rat): 2.44 mg/l Exposure time: 4 h Test atmosphere: dust/mistM-(3-(trimethoxysilyl)propyl)ethylenediamine: Acute oral toxicity:LC50 (Rat): > 1.49 - < 2.44 mg/l Exposure time: 4 h Test atmosphere: dust/mistAcute inhalation toxicity:LC50 (Rat): > 1.49 - < 2.44 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403Acute toxicity estimate: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation methodAcute dermal toxicity:LD50 Dermal (Rabbit): > 2.000 mg/kgbis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity:LD50 Oral (Rat): 3.700 mg/kg	-	: LD50 Oral (Rat): > 15.000 mg/kg
Method: OECD Test Guideline 402 titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter < 10 µm]:	Acute inhalation toxicity	Exposure time: 4 h Test atmosphere: vapor Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhala-
diameter ≤ 10 µm]: Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg Acute inhalation toxicity : LD50 (Rat): > 6,82 mg/l Exposure time: 4 h Test atmosphere: dust/mist N-(3-(trimethoxysilyl)propyl)ethylenediamine: Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LC50 (Rat): > 1,49 - < 2,44 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Acute toxicity estimate: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity : LD50 Oral (Rat): 3.700 mg/kg	Acute dermal toxicity	
Acute inhalation toxicity : LD50 (Rat): > 6,82 mg/l Exposure time: 4 h Test atmosphere: dust/mist N-(3-(trimethoxysilyl)propyl)ethylenediamine: Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LC50 (Rat): > 1,49 - < 2,44 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Acute toxicity estimate: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity : LD50 Oral (Rat): 3.700 mg/kg		der form containing 1 % or more of particles with aerodynamic
Exposure time: 4 h Test atmosphere: dust/mist N-(3-(trimethoxysilyl)propyl)ethylenediamine: Acute oral toxicity Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LC50 (Rat): > 1,49 - < 2,44 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Acute toxicity estimate: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity : LD50 Oral (Rat): 3.700 mg/kg	Acute oral toxicity	: LD50 Oral (Rat): > 5.000 mg/kg
Acute oral toxicity : LD50 Oral (Rat): 2.295 mg/kg Acute inhalation toxicity : LC50 (Rat): > 1,49 - < 2,44 mg/l	Acute inhalation toxicity	Exposure time: 4 h
Acute oral toxicity:LD50 Oral (Rat): 2.295 mg/kgAcute inhalation toxicity:LC50 (Rat): > 1,49 - < 2,44 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403Acute toxicity estimate: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation methodAcute dermal toxicity:LD50 Dermal (Rabbit): > 2.000 mg/kgbis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity:LD50 Oral (Rat): 3.700 mg/kg	N-(3-(trimethoxysilyl)pro	pyl)ethylenediamine:
Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Acute toxicity estimate: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity : LD50 Oral (Rat): 3.700 mg/kg		
Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity : LD50 Oral (Rat): 3.700 mg/kg	Acute inhalation toxicity	Exposure time: 4 h Test atmosphere: dust/mist
bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate: Acute oral toxicity : LD50 Oral (Rat): 3.700 mg/kg		Exposure time: 4 h Test atmosphere: dust/mist
Acute oral toxicity : LD50 Oral (Rat): 3.700 mg/kg	Acute dermal toxicity	: LD50 Dermal (Rabbit): > 2.000 mg/kg
	bis(2,2,6,6-tetramethyl-4	-piperidyl) sebacate:
	Acute oral toxicity	
Acute dermal toxicity : LD50 Dermal (Rat): > 3.170 mg/kg Method: OECD Test Guideline 402	Acute dermal toxicity	

according to Regulation (EC) No. 1907/2006

Carsystem Uniflex MS grau

Version		Revision Date:	Date of last issue: 13.04.2023
2.1	DE / EN	04.10.2023	Date of first issue: 01.06.2022

Skin corrosion/irritation

Not classified based on available information.

Components:

triethyl phosphate:

Result : No skin irritation

Hydrocarbons, C10-C13, n-alkanes, <2% aromatics:

Result : Repeated exposure may cause skin dryness or cracking.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter \leq 10 µm]:

Remarks : No skin irritation

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

triethyl phosphate:

Result : Moderate eye irritation

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter \leq 10 µm]:

Remarks : Dust contact with the eyes can lead to mechanical irritation.

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Result : Irreversible effects on the eye

bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate:

Result : Irreversible effects on the eye

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Carsystem Uniflex MS grau

Version		Revision Date:	Date of last issue: 13.04.2023
2.1	DE / EN	04.10.2023	Date of first issue: 01.06.2022

Components:

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter \leq 10 μm]:

Remarks : No known sensitising effect.

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Result : The product is a skin sensitizer, sub-category 1B.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Components:

bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate:

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Components:

N-(3-(trimethoxysilyl)propyl)ethylenediamine:

Assessment : May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

Components:

Hydrocarbons, C10-C13, n-alkanes, <2% aromatics:

2

May be fatal if swallowed and enters airways.

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

Carsystem Uniflex MS grau

Version 2.1	DE / EN	Revision Date: 04.10.2023	Date of last issue: 13.04.2023 Date of first issue: 01.06.2022	

(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Hydrocarbons, C10-C13, n-alkanes, <2% aromatics:						
Toxicity to fish :	LL50 (Oncorhynchus mykiss (rainbow trout)): > 10 - < 30 mg/l Exposure time: 96 h Method: OECD Test Guideline 203					
Toxicity to daphnia and other : aquatic invertebrates	EL50 (Daphnia magna (Water flea)): ca. 100 mg/l Exposure time: 48 h					
Toxicity to algae/aquatic : plants	EL50 (Pseudokirchneriella subcapitata (algae)): > 1.000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201					
Toxicity to fish (Chronic tox- : icity)	NOELR: 0,139 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout)					
Toxicity to daphnia and other : aquatic invertebrates (Chron- ic toxicity)	NOELR: 0,361 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)					
Ecotoxicology Assessment Chronic aquatic toxicity :	This product has no known ecotoxicological effects.					
titanium dioxide; [in powder fo diameter ≤ 10 μm]:	rm containing 1 % or more of particles with aerodynamic					
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 1.000 mg/l Exposure time: 48 h					
N-(3-(trimethoxysilyl)propyl)etl	hylenediamine:					
Toxicity to fish	LC50 (Danio rerio (zebra fish)): 597 mg/l Exposure time: 96 h Method: Regulation (EC) No. 440/2008, Annex, C.1					
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 81 mg/l Exposure time: 48 h Method: Regulation (EC) No. 440/2008, Annex, C.2					
Toxicity to algae/aquatic : plants	EC50 (Pseudokirchneriella subcapitata (algae)): 8,8 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201					

according to Regulation (EC) No. 1907/2006

Version 2.1 DE / EN	Revision Date:Date of last issue: 13.04.202304.10.2023Date of first issue: 01.06.2022
	NOEC (Pseudokirchneriella subcapitata (algae)): 3,1 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to microorganisms	: EC50 (Pseudomonas putida): 67 mg/l End point: Growth rate Exposure time: 16 h
Ecotoxicology Assessmen	t
Chronic aquatic toxicity	: This product has no known ecotoxicological effects.
bis(2,2,6,6-tetramethyl-4-pi	neridyl) sehacate
Toxicity to fish	 LC50 (Lepomis macrochirus (Bluegill sunfish)): 4,4 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and othe aquatic invertebrates	 NOEC (Daphnia magna (Water flea)): 4 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	 EC50 (Pseudokirchneriella subcapitata (green algae)): 0,705 mg/l End point: Growth rate Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic tox- icity)	: 1
Toxicity to microorganisms	: IC50 (Bacteria): > 100 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to daphnia and othe aquatic invertebrates (Chron ic toxicity)	
Ecotoxicology Assessmen Chronic aquatic toxicity	t : Toxic to aquatic life with long lasting effects.
12.2 Persistence and degradab	lity
Components:	
Hydrocarbons, C10-C13, n	alkanes, <2% aromatics:
Biodegradability	: Biodegradation: 89,8 % Exposure time: 28 d

Versic 2.1	on DE / EN	Revision Date: 04.10.2023	Date of last issue: 13.04.2023 Date of first issue: 01.06.2022
		Method: OECD	Test Guideline 301F
N	I-(3-(trimethoxysilyl)propy	I)ethylenediamine:	
	Biodegradability	: Result: Not read Biodegradation: Exposure time: 2	
b	is(2,2,6,6-tetramethyl-4-pi	peridyl) sebacate:	
	Biodegradability	: Result: Not read Biodegradation: Exposure time: 2	
12.3 E	Bioaccumulative potential		
<u>c</u>	Components:		
tı	riethyl phosphate:		
	Partition coefficient: n- ctanol/water	: log Pow: 1,11 (2	0 °C)
н	lydrocarbons, C10-C13, n-	alkanes, <2% aroma	tics:
В	Bioaccumulation	: Bioconcentration	n factor (BCF): 144,3
	itanium dioxide; [in powde liameter ≤ 10 μm]:	r form containing 1	% or more of particles with aerodynamic
	Partition coefficient: n- ctanol/water	: Remarks: Not a	oplicable
N	I-(3-(trimethoxysilyl)propy	I)ethylenediamine:	
Р	Partition coefficient: n- octanol/water	: log Pow: -0,82	
b	is(2,2,6,6-tetramethyl-4-pi	peridyl) sebacate:	
	Partition coefficient: n-	: log Pow: 0,35 (2	5 °C)
12.4 N	Aobility in soil		
	lo data available		
12.5 F	Results of PBT and vPvB a	ssessment	
<u>P</u>	Product:		
А	ssessment	to be either pers	mixture contains no components considered istent, bioaccumulative and toxic (PBT), or and very bioaccumulative (vPvB) at levels of

according to Regulation (EC) No. 1907/2006

Carsystem Uniflex MS grau

Version		Revision Date:	Date of last issue: 13.04.2023
2.1	DE / EN	04.10.2023	Date of first issue: 01.06.2022

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

Pr	od	uc	t:

Additional ecological infor-	:	No data available
mation		

SECTION 13: Disposal considerations

13.1 Waste treatment methods		
Product	:	Do not dispose of with domestic refuse. Dispose of in accordance with local regulations. Send to a licensed waste management company.
Contaminated packaging	:	Empty containers should be taken to an approved waste han- dling site for recycling or disposal. Packaging that is not properly emptied must be disposed of as the unused product. Dispose of in accordance with local regulations.
Waste Code	:	The following Waste Codes are only suggestions: 08 04 09, waste adhesives and sealants containing organic solvents or other hazardous substances 08 04 10, waste adhesives and sealants other than those mentioned in 08 04 09 08 04 11, adhesive and sealant sludges containing organic solvents or other hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good

Version 2.1 DE / EN	Revision Date: 04.10.2023	Date of last issue: 13.04.2023 Date of first issue: 01.06.2022
14.2 UN proper shipping name		
ADN	: Not regulated as	a dangerous good
ADR	: Not regulated as	a dangerous good
RID	: Not regulated as	a dangerous good
IMDG	: Not regulated as	a dangerous good
ΙΑΤΑ	: Not regulated as	a dangerous good
14.3 Transport hazard class(es)	
ADN	: Not regulated as	a dangerous good
ADR	: Not regulated as	a dangerous good
RID	: Not regulated as	a dangerous good
IMDG	: Not regulated as	a dangerous good
ΙΑΤΑ	: Not regulated as	a dangerous good
14.4 Packing group		
ADN	: Not regulated as	a dangerous good
ADR	: Not regulated as	a dangerous good
RID	: Not regulated as	a dangerous good
IMDG	: Not regulated as	a dangerous good
IATA (Cargo)	: Not regulated as	a dangerous good
IATA (Passenger)	: Not regulated as	a dangerous good
14.5 Environmental hazards		
Not regulated as a dangerou	-	
14.6 Special precautions for us Not applicable	ser	
14.7 Maritime transport in bulk Not applicable for product as	-	ruments
SECTION 15: Regulatory inf	ormation	
15.1 Safety, health and environ ture	mental regulations/leg	gislation specific for the substance or mix-
REACH - Restrictions on the the market and use of certai mixtures and articles (Anne)	n dangerous substance	
REACH - Candidate List of S Concern for Authorization (A		h : Not applicable
Regulation (EC) No 1005/20 plete the ozone layer	09 on substances that o	de- : Not applicable

Carsystem Uniflex MS grau

Versi 2.1	on DE / EN	Revision Date: 04.10.2023	Date of last issue: 13.04.2023 Date of first issue: 01.06.2022	
	Regulation (EU) 2019/1021 ants (recast)	on persistent organic	pollu- : Not applicable	
	REACH - List of substances Annex XIV)	subject to authorisati	on : Not applicable	
r C	Seveso III: Directive 2012/18 bean Parliament and of the control of major-accident ha langerous substances.	Council on the	Not applicable	
	Water hazard class (Germa- iy)		sly hazardous to water ccording to AwSV, Annex 1 (5.2)	

15.2 Chemical Safety Assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

SECTION 16: Other information

Full text of H-Statements				
H302	:	Harmful if swallowed.		
H304	:	May be fatal if swallowed and enters airways.		
H317	:	May cause an allergic skin reaction.		
H318	:	Causes serious eye damage.		
H319	:	Causes serious eye irritation.		
H332	:	Harmful if inhaled.		
H351	:	Suspected of causing cancer if inhaled.		
H361f	:	Suspected of damaging fertility.		
H373	:	May cause damage to organs through prolonged or repeated exposure.		
H400	:	Very toxic to aquatic life.		
H411	:	Toxic to aquatic life with long lasting effects.		
EUH066	:	Repeated exposure may cause skin dryness or cracking.		
Full text of other abbreviations				
Acute Tox.	:	Acute toxicity		
Aquatic Acute	:	Short-term (acute) aquatic hazard		
Aquatic Chronic	:	Long-term (chronic) aquatic hazard		
Asp. Tox.	:	Aspiration hazard		
Carc.	:	Carcinogenicity		
Eye Dam.	:	Serious eye damage		
Eye Irrit.	:	Eye irritation		
Repr.	:	Reproductive toxicity		
Skin Sens.	:	Skin sensitization		
STOT RE	:	Specific target organ toxicity - repeated exposure		
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.		
DE TRGS 900 / AGW	:	Time Weighted Average		

Carsystem Uniflex MS grau

Version		Revision Date:	Date of last issue: 13.04.2023
2.1	DE / EN	04.10.2023	Date of first issue: 01.06.2022

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

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

DE / EN