

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Product name: kLine Seal and Bond

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

Intended use: One component, methoxy silane-based, adhesive for generic industrial applications.

Identified Uses	Industrial	Professional	Consumer
SEALANTS AND ADHESIVES FORMULATIONS IN INDUSTRY	✓	-	-
INDUSTRIAL APPLICATIONS OF SEALANTS AND ADHESIVES	✓	✓	-
CHEMICAL SUBSTANCE USE IN LABORATORY, INDUSTRIAL	✓	-	-

1.3. Details of the supplier of the safety data sheet

Name: DKS Technik GmbH
Full address: Gnadenwald 90a
District and Country: A-6069 Gnadenwald
Tel.: +43 5223 48488
e-mail address of the competent person responsible for the Safety Data Sheet: office@dks.at

1.4. Emergency telephone number

For urgent inquiries refer to: Vergiftungsinformationszentrale Österreich, Tel.: +43 1 406 4343

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2020/878.

Hazard classification and indication: --

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:

EUH210: Safety data sheet available on request.
EUH208: Contains: N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE.
VINYLTRIMETHOXYSILANE.
May produce an allergic reaction.

Precautionary statements: --

SECTION 2. Hazards identification .../ >>

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

The product reacts slowly in the presence of water (through the ambient humidity) becoming a rubbery solid and producing METHANOL.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
TITANIUM DIOXIDE		
INDEX	$3,5 \leq x < 4$	
EC	236-675-5	
CAS	13463-67-7	
REACH Reg.	01-2119489379-17-XXXX	
REACTION MASS OF: N,N'-ETHANE- 1,2-DIYLBIS(HEXANAMIDE); 12-HYDROXY-N-[2-[(1-OXYHEXYL)AMINO]ETHYL]OCTADECANAMIDE; N,N'-ETHANE-1,2-DIYLBIS(12-HYDROXYOCTADECANAMIDE)		
INDEX	$616-200-00-1$	$3 \leq x < 3,5$ Aquatic Chronic 4 H413
EC	432-430-3	
CAS		
REACH Reg.	01-0000017860-69-XXXX	
CARBON BLACK.		
INDEX	$1 \leq x < 1,5$	
EC	215-609-9	
CAS	1333-86-4	
REACH Reg.	01-2119384822-32	
VINYLTRIMETHOXYSILANE.		
INDEX	$0,89 \leq x < 1$	Flam. Liq. 3 H226, Acute Tox. 4 H332, Skin Sens. 1B H317 LC50 Inhalation vapours: 16,8 mg/l/4h
EC	220-449-8	
CAS	2768-02-7	
REACH Reg.	01-2119513215-52-XXXX	
N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE.		
INDEX	$0,708 \leq x < 0,808$	Acute Tox. 4 H332, STOT RE 2 H373, Eye Dam. 1 H318, Skin Sens. 1 H317 STA Inhalation vapours: 11 mg/l
EC	217-164-6	
CAS	1760-24-3	
REACH Reg.	01-2119970215-39-XXXX	
BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE		
INDEX	$0,2 \leq x < 0,25$	Repr. 2 H361f, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411
EC	258-207-9	
CAS	52829-07-9	
REACH Reg.	01-2119537297-32-XXXX	
METHANOL		
INDEX	$603-001-00-X$	$0 \leq x < 0,05$ Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370 STOT SE 2 H371: $\geq 3\%$ STA Oral: 100 mg/kg, STA Dermal: 300 mg/kg, STA Inhalation mists/powders: 0,501 mg/l, STA Inhalation vapours: 3 mg/l
EC	200-659-6	
CAS	67-56-1	
REACH Reg.	01-2119433307-44-XXXX	

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: remove immediately with a clean cloth or paper and wash affected area with soap and water.

SKIN: take off contaminated clothing. Wash immediately with plenty of water. If irritation persists, consult a doctor. Wash contaminated clothing before reuse.

INHALATION: In case of feeling unwell remove patient to fresh air and seek medical attention if breathing difficulty succeeding.

INGESTION: eject the product and rinse mouth with water

SECTION 4. First aid measures ... / >>

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

Information not available

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

Consult a doctor if symptoms are severe or in the case of persistent irritation of the skin.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

SECTION 7. Handling and storage ... / >>

S storage class TRGS 510 (Germany): 10

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÄRDSMINISTERIETS PUBLIKATIONER 2020:25
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ "σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία"»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

SECTION 8. Exposure controls/personal protection

... / >>

VINYLTRIMETHOXSILANE.

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,34	mg/l
Normal value in marine water	0,034	mg/l
Normal value for fresh water sediment	0,27	mg/kg
Normal value for water, intermittent release	3,4	mg/l
Normal value of STP microorganisms	110	mg/l
Normal value for the terrestrial compartment	0,046	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,3 mg/kg/d				
Inhalation	VND	93,4 mg/m3	VND	1,04 mg/m3			VND	4,9 mg/m3
Skin	VND	26,9 mg/kg/d	VND	0,3 mg/kg/d			VND	0,69 mg/kg/d

N-[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE.

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,062	mg/l
Normal value in marine water	0,0062	mg/l
Normal value for fresh water sediment	0,22	mg/kg
Normal value for marine water sediment	0,022	mg/kg
Normal value for water, intermittent release	0,62	mg/l
Normal value of STP microorganisms	25	mg/l
Normal value for the terrestrial compartment	0,0085	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation	NPI		NPI	8,7 mg/m3	NPI		NPI	35,3 mg/m3
Skin		17 mg/kg bw/d		2,5 mg/kg bw/d		5 mg/kg bw/d		5 mg/kg bw/d

CARBON BLACK.

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	2				
MAK	DEU	4				INHAL
MAK	DEU	1,5				RESP
VLA	ESP	3,5				
VLEP	FRA	3,5				INHAL
HTP	FIN	3,5		7		
VLEP	ITA	3				INHAL
TLV	NOR	3,5				
NGV/KGV	SWE	3				
WEL	GBR	3,5		7		INHAL

SECTION 8. Exposure controls/personal protection ... / >>

BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE

Predicted no-effect concentration - PNEC								
Normal value in fresh water					0,005			mg/l
Normal value in marine water					0,0005			mg/l
Normal value for fresh water sediment					8,02			mg/kg
Normal value for marine water sediment					0,802			mg/kg
Normal value of STP microorganisms					1			mg/l
Normal value for the terrestrial compartment					1,6			mg/kg
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	1 mg/kg	VND	1 mg/kg				
Inhalation	VND	1,4 mg/m3	VND	1,4 mg/m3	VND	5,6 mg/m3	VND	5,6 mg/m3
Skin	VND	1 mg/kg	VND	1 mg/kg	VND	2 mg/kg	VND	2 mg/kg

TITANIUM DIOXIDE

Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	10				RESP
TLV	DNK	6				Som Ti
VLA	ESP	10				
VLEP	FRA	10				
TLV	GRC		10			
GVI/KGVI	HRV	10				INHAL
GVI/KGVI	HRV	4				RESP
TLV	NOR	5				
NDS/NDSch	POL	10				INHAL
TLV	ROU	10		15		
NGV/KGV	SWE	5				Totaldamm
NPEL	SVK	5				
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		2,5				RESP

METHANOL

Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	260	200			SKIN
TLV	CZE	250	187,75	1000	751	SKIN
AGW	DEU	270	200	1080	800	SKIN
MAK	DEU	130	100	260	200	SKIN
TLV	DNK	260	200			SKIN E
VLA	ESP	266	200			SKIN
VLEP	FRA	260	200	1300	1000	SKIN 11
HTP	FIN	270	200	330	250	SKIN
TLV	GRC	260	200	325	250	
AK	HUN	260				SKIN
GVI/KGVI	HRV	260	200			SKIN
VLEP	ITA	260	200			SKIN
TLV	NOR	130	100			SKIN
TGG	NLD	133				SKIN
VLE	PRT	260	200			SKIN
NDS/NDSch	POL	100		300		SKIN
TLV	ROU	260	200			SKIN
NGV/KGV	SWE	250	200	350 (C)	250 (C)	SKIN
NPEL	SVK	260	200			SKIN
MV	SVN	260	200	1040	800	SKIN
WEL	GBR	266	200	333	250	SKIN
OEL	EU	260	200			
TLV-ACGIH		262	200	328	250	SKIN

Legend:

SECTION 8. Exposure controls/personal protection ... / >>

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect your hands with work gloves, category III (ref. standard EN 374). For the final choice of material you need to assess the type of use. In case of contact for the short term or as protection against splashes, use gloves made of nitrile (0.3mm thickness, permeation time >480 min.). In the event of continued exposure use butyl rubber gloves (0.4mm thickness, permeation time > 480 min.). Contaminated gloves should be removed.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

In case of exceeding the threshold value (eg, TLV-TWA) of the substance or one or more of the substances present in the product, it is advisable to wear a mask with filter type A for organic vapors, the class (1, 2 or 3) must be chosen according to the limit concentration of use (1000, 5000 or 10000 ppm) (ref. standard EN 14387).

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	paste	
Colour	various	
Odour	characteristic	
Melting point / freezing point	not applicable	Reason for missing data:Determination is not technically possible.
Initial boiling point	not applicable	Reason for missing data:Determination is not technically possible.
Boiling range	not applicable	Reason for missing data:Determination is not technically possible.
Flammability	not flammable	Method:A10 regulation EC 440/2008
Lower explosive limit	not applicable	
Upper explosive limit	not applicable	
Flash point	not applicable	
Auto-ignition temperature	not available	
Decomposition temperature	not applicable	
pH	not applicable	Reason for missing data:Insoluble in water.
Kinematic viscosity	not available	
Dynamic viscosity	100000 - 140000 cps	Method:UNI EN ISO 3219 - Rotational viscometer
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not applicable	
Vapour pressure	not available	
Density and/or relative density	1,47 - 1,51	Method:ISO 1183-1 A
Relative vapour density	not applicable	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Evaporation rate not applicable

SECTION 9. Physical and chemical properties ... / >>

VOC (Directive 2010/75/EU) 0
Explosive properties not applicable

SECTION 10. Stability and reactivity

10.1. Reactivity

Product reacts slowly with water (ambient humidity) turning into a rubbery solid and producing METHANOL.

10.2. Chemical stability

Product stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions

Under conditions of normal use and storage not hazardous reactions are foreseeable.

10.4. Conditions to avoid

Humidity.

10.5. Incompatible materials

Water.

10.6. Hazardous decomposition products

Carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

METHANOL

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

METHANOL

The minimum lethal dose for humans by ingestion is considered to be in the range from 300 to 1000 mg/kg. Ingestion of 4-10 ml of the substance may cause permanent blindness in adult humans (IPCS).

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

VINYLTRIMETHOXYSILANE.

LD50 (Dermal): 3200 mg/kg *Oryctolagus* sp.

LD50 (Oral): 7178 mg/kg *Rattus* sp.

LC50 (Inhalation vapours): 16,8 mg/l/4h *Rattus* sp.

SECTION 11. Toxicological information ... / >>

N-[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE.
LD50 (Dermal): > 2000 mg/kg Oryctolagus sp.
LD50 (Oral): 2295 mg/kg Rattus sp.
LC50 (Inhalation vapours): 1,49 mg/l/4h Rattus sp.

CARBON BLACK.
LD50 (Dermal): > 3000 mg/kg Oryctolagus sp.
LD50 (Oral): > 8000 mg/kg Rattus sp.
LC50 (Inhalation mists/powders): > 27 mg/l/1h Rattus sp.

BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE
LD50 (Dermal): > 3170 mg/kg Rattus sp.
LD50 (Oral): 3700 mg/kg Rattus sp.
LC50 (Inhalation mists/powders): 0,5 mg/l Rattus sp.

TITANIUM DIOXIDE
LD50 (Oral): > 10000 mg/kg Rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

N-[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE.
VINYLTRIMETHOXSILANE.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

SECTION 12. Ecological information ... / >>

VINYLTRIMETHOXYSILANE.	
LC 50 - for Fish	191 mg/l/96h Oncorhynchus mykiss
EC 50 - for Crustacea	1687 mg/l/48h Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	25 mg/l Selenastrum capricornutum
N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE.	
LC 50 - for Fish	344 mg/l/96h Brachydanio rerio
EC 50 - for Crustacea	81 mg/l/48h Daphnia magna
EC 50 - for Algae / Aquatic Plants	126 mg/l/72h Scenedesmus subspicatus
CARBON BLACK.	
LC 50 - for Fish	> 1000 mg/l/96h Brachydanio rerio
EC 50 - for Algae / Aquatic Plants	> 10000 mg/l/72h Scenedesmus subspicatus
BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE	
LC 50 - for Fish	4,4 mg/l/96h Brachydanio rerio
EC 50 - for Crustacea	0,57 mg/l/48h Daphnia sp.
EC 50 - for Algae / Aquatic Plants	1,9 mg/l/72h Scenedesmus subspicatus

12.2. Persistence and degradability

VINYLTRIMETHOXYSILANE.	
NOT rapidly degradable	
N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE.	
NOT rapidly degradable	
BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE	
NOT rapidly degradable	
TITANIUM DIOXIDE	
Solubility in water	< 0,001 mg/l
Degradability: information not available	
METHANOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

12.3. Bioaccumulative potential

METHANOL	
Partition coefficient: n-octanol/water	-0,77
BCF	0,2

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: _____ None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006 _____

Product

Point 40

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors _____

not applicable

Substances in Candidate List (Art. 59 REACH) _____

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH) _____

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012: _____

None

Substances subject to the Rotterdam Convention: _____

None

Substances subject to the Stockholm Convention: _____

None

Healthcare controls _____

SECTION 15. Regulatory information ... / >>

Information not available

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

VINYLTRIMETHOXYISILANE.

N-[3-(TRIMETHOXYISILYL)PROPYL]ETHYLENEDIAMINE.

BIS(2,2,6,6-TETRAMETHYL-4-PIPERIDYL)SEBACATE

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H361f	Suspected of damaging fertility.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH210	Safety data sheet available on request.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

SECTION 16. Other information ... / >>

- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 08 / 11 / 12.