



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

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TEROSON BOND ACTIVATOR

SDS No. : 150383  
V010.0

Revision: 16.03.2022  
printing date: 23.05.2022

Replaces version from: 22.02.2022

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

#### 1.1. Product identifier

TEROSON BOND ACTIVATOR

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

Intended use:

initial product of adhesive, solvent-containing

#### 1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

Phone: +49 211 797 0

ua-productsafety.de@henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or [www.henkel-adhesives.com](http://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):

Flammable liquids	Category 2
H225 Highly flammable liquid and vapor.	
Skin irritation	Category 2
H315 Causes skin irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Toxic to reproduction	Category 2
H361f Suspected of damaging fertility.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central nervous system	
Aspiration hazard	Category 1
H304 May be fatal if swallowed and enters airways.	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	

**2.2. Label elements**

**Label elements (CLP):**



<b>Contains</b>	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane  n-Hexane  N-(3-(Trimethoxy silyl)propyl)ethylenediamine
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<b>Signal word:</b>	<b>Danger</b>
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<b>Hazard statement:</b>	H225 Highly flammable liquid and vapor. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H336 May cause drowsiness or dizziness. H361f Suspected of damaging fertility. H411 Toxic to aquatic life with long lasting effects.
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<b>Precautionary statement:</b> <b>Prevention</b>	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing vapors. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection.
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<b>Precautionary statement:</b> <b>Response</b>	P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor. P308+P313 IF exposed or concerned: Get medical advice/attention. P331 Do NOT induce vomiting. P370+P378 In case of fire: Use CO <sub>2</sub> , dry chemical, or foam for extinction.
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<b>Precautionary statement:</b> <b>Storage</b>	P403+P235 Store in a well-ventilated place. Keep cool.
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**2.3. Other hazards**

Solvents contained in the product evaporate during processing and their vapors can form explosive/highly inflammable air/vapor mixtures.  
The solvent vapors are heavier than air and may collect in high concentrations at floor level.  
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**Following substances are present in a concentration  $\geq 0,1\%$  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
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0 921-024-6 01-2119475514-35	80- < 100 %	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411		
cyclohexane 110-82-7 203-806-2 01-2119463273-41	5- < 10 %	Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Flam. Liq. 2, H225 Skin Irrit. 2, H315	M acute = 1 M chronic = 1	EU OEL
n-Hexane 110-54-3 203-777-6 01-2119480412-44	1- < 5 %	Flam. Liq. 2, H225 Repr. 2, H361f Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411	STOT RE 2; H373; C >= 5 %	EU OEL
N-(3-(Trimethoxysilyl)propyl)ethylene diamine 1760-24-3 217-164-6 01-2119970215-39	0,1- < 1 %	Skin Sens. 1A, H317 Eye Dam. 1, H318 Acute Tox. 4, Inhalation, H332 STOT RE 2, Inhalation, H373	inhalation:ATE = 1,49 mg/l;dust/mist	

**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

#### General information:

Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

#### Inhalation:

Move to fresh air, consult doctor if complaint persists.

#### Skin contact:

IF ON SKIN: Wash with plenty of soap and water.

In case of adverse health effects seek medical advice.

#### Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

#### Ingestion:

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

After ingestion or vomit: danger of product entering the lung.

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

SKIN: Rash, Urticaria.

SKIN: Redness, inflammation.

ASPIRATION: Coughing, shortness of breath, nausea. Delayed effect: bronchopneumonia or pulmonary oedema

Vapors may cause drowsiness and dizziness.

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

See section: Description of first aid measures

Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

Do not induce vomiting.

Seek medical attention from a specialist.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media:**

Carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:**

Water jet (solvent-containing product).

**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.

Avoid contact with skin and eyes.

Keep unprotected persons away.

Danger of slipping on spilled product.

**6.2. Environmental precautions**

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

Inform authorities in the event of product spillage to water courses or sewage systems.

**6.3. Methods and material for containment and cleaning up**

Remove with liquid-absorbing material (sand, peat, sawdust).

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**

Avoid open flames and sources of ignition.

Ground/bond container and receiving equipment.

Use explosion proof electric equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

Take off contaminated clothing and wash before reuse.

**7.2. Conditions for safe storage, including any incompatibilities**

Ensure good ventilation/extraction.

Store in a cool, dry place.

Keep away from heat and direct sunlight.

Storage at 15 to 25°C is recommended.

**7.3. Specific end use(s)**

initial product of adhesive, solvent-containing

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure Limits**Valid for  
Germany

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category/ Remarks	Regulatory list
Cyclohexane 110-82-7 [CYCLOHEXANE]	200	700	Time Weighted Average (TWA):	Indicative	ECLTV
Cyclohexane 110-82-7	200	700	Exposure limit(s):	4	TRGS 900
Cyclohexane 110-82-7			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
n-Hexane 110-54-3 [N-HEXANE]	20	72	Time Weighted Average (TWA):	Indicative	ECLTV
n-Hexane 110-54-3	50	180	Exposure limit(s):	8 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
n-Hexane 110-54-3			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
cyclohexane 110-82-7	aqua (freshwater)		0,207 mg/l				
cyclohexane 110-82-7	aqua (marine water)		0,207 mg/l				
cyclohexane 110-82-7	aqua (intermittent releases)		0,207 mg/l				
cyclohexane 110-82-7	sediment (freshwater)				16,68 mg/kg		
cyclohexane 110-82-7	sediment (marine water)				16,68 mg/kg		
cyclohexane 110-82-7	Soil				3,38 mg/kg		
cyclohexane 110-82-7	sewage treatment plant (STP)		3,24 mg/l				
cyclohexane 110-82-7	Air						
cyclohexane 110-82-7	Predator						no potential for bioaccumulation
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	aqua (freshwater)		0,062 mg/l				
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	aqua (marine water)		0,0062 mg/l				
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	aqua (intermittent releases)		0,62 mg/l				
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	sediment (freshwater)				0,22 mg/kg		
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	sediment (marine water)				0,022 mg/kg		
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Soil				0,0085 mg/kg		
N-(3- (Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	sewage treatment plant (STP)		25 mg/l				

**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Workers	dermal	Long term exposure - systemic effects		773 mg/kg	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Workers	inhalation	Long term exposure - systemic effects		2035 mg/m <sup>3</sup>	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	dermal	Long term exposure - systemic effects		699 mg/kg	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	inhalation	Long term exposure - systemic effects		608 mg/m <sup>3</sup>	
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	General population	oral	Long term exposure - systemic effects		699 mg/kg	
cyclohexane 110-82-7	Workers	inhalation	Acute/short term exposure - local effects		700 mg/m <sup>3</sup>	no potential for bioaccumulation
cyclohexane 110-82-7	Workers	inhalation	Acute/short term exposure - systemic effects		700 mg/m <sup>3</sup>	no potential for bioaccumulation
cyclohexane 110-82-7	Workers	inhalation	Long term exposure - systemic effects		700 mg/m <sup>3</sup>	no potential for bioaccumulation
cyclohexane 110-82-7	Workers	inhalation	Long term exposure - local effects		700 mg/m <sup>3</sup>	no potential for bioaccumulation
cyclohexane 110-82-7	Workers	dermal	Long term exposure - systemic effects		2016 mg/kg	no potential for bioaccumulation
cyclohexane 110-82-7	General population	inhalation	Acute/short term exposure - systemic effects		412 mg/m <sup>3</sup>	no potential for bioaccumulation
cyclohexane 110-82-7	General population	inhalation	Acute/short term exposure - local effects		412 mg/m <sup>3</sup>	no potential for bioaccumulation
cyclohexane 110-82-7	General population	dermal	Long term exposure - systemic effects		1186 mg/kg	no potential for bioaccumulation
cyclohexane 110-82-7	General population	oral	Long term exposure - systemic effects		59,4 mg/kg	no potential for bioaccumulation
cyclohexane 110-82-7	General population	inhalation	Long term exposure - systemic effects		206 mg/m <sup>3</sup>	no potential for bioaccumulation
cyclohexane 110-82-7	General population	inhalation	Long term exposure - local effects		206 mg/m <sup>3</sup>	no potential for bioaccumulation
n-Hexane 110-54-3	General population	inhalation	Long term exposure - systemic effects		16 mg/m <sup>3</sup>	
n-Hexane 110-54-3	Workers	dermal	Long term exposure - systemic effects		11 mg/kg	
n-Hexane 110-54-3	General population	dermal	Long term exposure - systemic effects		5,3 mg/kg	
n-Hexane 110-54-3	Workers	inhalation	Long term exposure - systemic effects		75 mg/m <sup>3</sup>	
n-Hexane 110-54-3	General population	oral	Long term exposure - systemic effects		4 mg/kg	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Workers	inhalation	Long term exposure - systemic effects		35,3 mg/m <sup>3</sup>	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Workers	dermal	Long term exposure - systemic effects		5 mg/kg	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Workers	dermal	Acute/short term exposure -		5 mg/kg	

1760-24-3			systemic effects			
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	General population	inhalation	Long term exposure - systemic effects		8,7 mg/m <sup>3</sup>	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	General population	dermal	Long term exposure - systemic effects		2,5 mg/kg	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	General population	oral	Long term exposure - systemic effects		2,5 mg/kg	
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	General population	dermal	Acute/short term exposure - systemic effects		17 mg/kg	

### Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Cyclohexane 110-82-7	1,2-Cyclohexane diol, with hydrolysis	Creatinine in urine	Sampling time period is for long-term exposures, at the end of the shift after several preceding ones./ Sampling time period is at end of exposure or at end of shift.	150 mg/g	DE BGW		
n-Hexane 110-54-3	Hexane-2,5-dione plus 4,5-Dihydroxy-2-hexanone	Urine	Sampling time: End of shift.	5 mg/l	DE BAT		
n-Hexane 110-54-3	Hexane-2,5-dione plus 4,5-Dihydroxy-2-hexanone (with hydrolysis)	Urine	Sampling time: End of shift.	5 mg/l	DE BGW		

### 8.2. Exposure controls:

#### Engineering controls:

Use only in well ventilated areas.

#### Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).

This recommendation should be matched to local conditions.

#### 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):

nitrile rubber (NBR;  $\geq$  0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR;  $\geq$  0.4 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:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.



**Skin protection:**

Wear protective equipment.

Protective clothing that covers arms and legs.

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	liquid
Delivery form	liquid
Colour	clear
Odor	of petrol
Initial boiling point	88,0 °C (190,4 °F)
Flash point	-15 °C (5 °F); flash point, Abel-Pensky
Viscosity, dynamic (; 20 °C (68 °F))	0,5 mPa.s viscosity, Brookfield
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Insoluble
Density (20 °C (68 °F))	0,7 g/cm <sup>3</sup> Dummy

**9.2. Other information**

Other information not applicable for this product

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Oxidizers.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

Heat, flames, sparks and other sources of ignition.

**10.5. Incompatible materials**

See section reactivity.

**10.6. Hazardous decomposition products**

No decomposition if used according to specifications.

## SECTION 11: Toxicological information

### General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

### 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 CAS-No.	Value type	Value	Species	Method
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
cyclohexane 110-82-7	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
n-Hexane 110-54-3	LD50	16.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	LD50	2.295 mg/kg	rat	EPA OPPTS 870.1100 (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 CAS-No.	Value type	Value	Species	Method
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
cyclohexane 110-82-7	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
n-Hexane 110-54-3	LD50	> 2.000 mg/kg	rabbit	not specified
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	LD50	> 2.000 mg/kg	rat	EPA OPPTS 870.1200 (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
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	LC50	> 25,2 mg/l	vapour	4 h	rat	not specified
cyclohexane 110-82-7	LC50	> 32,880 mg/l	vapour	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
n-Hexane 110-54-3	LC50	> 31,86 mg/l	vapour	4 h	rat	not specified
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	LC50	1,49 - 2,44 mg/l	dust/mist	4 h	rat	EPA OPPTS 870.1300 (Acute inhalation toxicity)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Acute toxicity estimate (ATE)	1,49 mg/l	dust/mist			Expert judgement

**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
n-Hexane 110-54-3	not irritating		rabbit	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 CAS-No.	Result	Exposure time	Species	Method
cyclohexane 110-82-7	slightly irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
n-Hexane 110-54-3	not irritating		rabbit	not specified
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	highly 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
cyclohexane 110-82-7	not sensitising	Buehler test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
n-Hexane 110-54-3	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	Sub-Category 1A (sensitising)	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

**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
cyclohexane 110-82-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
cyclohexane 110-82-7	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
n-Hexane 110-54-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
n-Hexane 110-54-3	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
n-Hexane 110-54-3	not carcinogenic	inhalation: vapour	2 y 6 h/d; 5 d/w	mouse	female	OECD Guideline 451 (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
cyclohexane 110-82-7	NOAEL F1 7000 ppm	two-generation study	inhalation: vapour	rat	equivalent or similar to OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
n-Hexane 110-54-3	NOAEL P 9000 ppm NOAEL F1 3000 ppm NOAEL F2 3000 ppm	Two generation study	inhalation: vapour	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

**STOT-single exposure:**

No substance data available.  
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
cyclohexane 110-82-7		inhalation: vapour	13-14 w 6 h/d, 5 d/w	mouse	EPA OPPTS 870.3465 (90-Day Inhalation Toxicity)
n-Hexane 110-54-3	NOAEL 568 mg/kg	oral: gavage	90 d 5 d/w	rat	not specified
n-Hexane 110-54-3	NOAEL 500 ppm	inhalation: vapour	90 d 6 h/d; 5 d/w	mouse	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)

**Aspiration hazard:**

The mixture is classified based on Viscosity data.

<b>Hazardous substances CAS-No.</b>	<b>Viscosity (kinematic) Value</b>	<b>Temperature</b>	<b>Method</b>	<b>Remarks</b>
cyclohexane 110-82-7	0,41 mm <sup>2</sup> /s	40 °C	not specified	
n-Hexane 110-54-3	0,45 mm <sup>2</sup> /s	25 °C	not specified	

**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
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	LL50	11,4 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
cyclohexane 110-82-7	LC50	4,53 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
n-Hexane 110-54-3	LC50	> 1 - 10 mg/l	96 h	not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	LC50	168 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute 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
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	EL50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
cyclohexane 110-82-7	EC50	0,9 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
n-Hexane 110-54-3	EC50	2,1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	EC50	87,4 mg/l	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 CAS-No.	Value type	Value	Exposure time	Species	Method
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	NOEC	0,17 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	NOEC	> 1 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 CAS-No.	Value type	Value	Exposure time	Species	Method
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	EL50	> 30 - 100 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	NOELR	3 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
cyclohexane 110-82-7	EC50	9,317 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
cyclohexane 110-82-7	NOEC	0,95 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
n-Hexane 110-54-3	EC50	> 1 - 10 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	EC50	8,8 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	NOEC	3,1 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

#### Toxicity to microorganisms

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
cyclohexane 110-82-7	IC50	29 mg/l	15 h	other:	not specified
n-Hexane 110-54-3	EC50	> 1 - 10 mg/l	3 h	not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	EC 50	435 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

#### 12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
cyclohexane 110-82-7	readily biodegradable	aerobic	77 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
n-Hexane 110-54-3	readily biodegradable	aerobic	81 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3		aerobic	50 %		OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

#### 12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
cyclohexane 110-82-7	167			Pimephales promelas	QSAR (Quantitative Structure Activity Relationship)

#### 12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
cyclohexane 110-82-7	3,44	25 °C	QSAR (Quantitative Structure Activity Relationship)
n-Hexane 110-54-3	4	20 °C	other guideline:
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	-1,67		not specified

### 12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT/ vPvB
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 92128-66-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
cyclohexane 110-82-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
n-Hexane 110-54-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3	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.

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<b>SECTION 14: Transport information</b>
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**14.1. UN number**

ADR	3295
RID	3295
ADN	3295
IMDG	3295
IATA	3295

**14.2. UN proper shipping name**

ADR	HYDROCARBONS, LIQUID, N.O.S.
RID	HYDROCARBONS, LIQUID, N.O.S.
ADN	HYDROCARBONS, LIQUID, N.O.S.
IMDG	HYDROCARBONS, LIQUID, N.O.S. (Solvent naphtha, Hexane)
IATA	Hydrocarbons, liquid, n.o.s.

**14.3. Transport hazard class(es)**

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

**14.4. Packing group**

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

**14.5. Environmental hazards**

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine pollutant
IATA	not applicable

**14.6. Special precautions for user**

ADR	Special provision 640D Tunnelcode: (D/E)
RID	Special provision 640D
ADN	Special provision 640D
IMDG	not applicable
IATA	not applicable

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

<b>SECTION 15: Regulatory information</b>
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**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 applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EU)	98,9 %

**VOC Paints and Varnishes (EU):**

Product (sub)category:

This product is not a subject of the Directive 2004/42/EC

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

**National regulations/information (Germany):**

WGK:

WGK 2: significantly water endangering (Ordinance on facilities for handling substances that are hazardous to water (AwSV) )  
Classification according to AwSV, Annex 1 (5.2)

BG regulations, rules, infos:

BG data sheet: BGI 621 Solvents

Storage class according to TRGS 510: 3

## 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:

H225 Highly flammable liquid and vapor.  
 H304 May be fatal if swallowed and enters airways.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H332 Harmful if inhaled.  
 H336 May cause drowsiness or dizziness.  
 H361f Suspected of damaging fertility.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H373 May cause damage to organs through prolonged or repeated exposure if inhaled.  
 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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