

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**VOSSCHEMIE**

## Carsystem 2K Clear VOC HS/SR

Version	Revision Date:	Date of last issue: 27.06.2022
1.2AUS DE / EN	16.10.2023	Date of first issue: 27.06.2022

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

#### 1.1 Product identifier

Trade name : Carsystem 2K Clear VOC HS/SR

Product code : CS153774

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

Use of the Sub-  
stance/Mixture : Paints

Recommended restrictions  
on use : Reserved for industrial and professional use.

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

Company : Vosschemie GmbH  
Esinger Steinweg 50  
25436 Uetersen  
Germany  
info@vosschemie.de

Telephone : 04122 717 0  
Telefax : 04122 717158

**Responsible Department** : Laboratory  
  
04122 717 0  
sds@vosschemie.de

#### 1.4 Emergency telephone

Telephone : Giftinformationszentrum (GIZ)-Nord, Göttingen, Deutschland  
0551 19240

#### **IMPORTED BY:**

**Sydney Automotive Paints & Equipment PTY LTD Unit A3, 366 Edgar St. Condell  
Park NSW 2200 AUSTRALIA, Tel. +02 9772 9000 , +02 9772 9001 .**

**Emergency telephone number: If poisoning occurs contact a doctor or Poisons  
Information Centre. Phone Australia 131 126, New Zealand 0800 764 766**

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### SECTION 2: Hazards identification


#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapor.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

##### Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms	:	
Signal Word	:	Warning
Hazard Statements	:	H226 Flammable liquid and vapor. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.
Precautionary Statements	:	<b>Prevention:</b> P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe mist or vapors.

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P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

### Response:

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

### Disposal:

P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

### Hazardous ingredients which must be listed on the label:

n-butyl acetate

xylene

Hydrocarbons, C9, Aromatics

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

### 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. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) EUH066	>= 10 - < 20
xylene	1330-20-7 215-535-7	Flam. Liq. 3; H226 Acute Tox. 4; H332	>= 10 - <= 25

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	601-022-00-9 01-2119488216-32	Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 (Central nervous system, Liver, Kidney) Asp. Tox. 1; H304 Aquatic Chronic 3; H412	
		Acute toxicity estimate	
		Acute inhalation toxicity (vapor): 11 mg/l	
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 5 - < 10
Hydrocarbons, C9, Aromatics	Not Assigned 918-668-5 01-2119455851-35	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411 EUH066	>= 2,5 - < 10
ethylbenzene	100-41-4 202-849-4 601-023-00-4 01-2119489370-35	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT RE 2; H373 (hearing organs) Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 2,5 - <= 10
2-butoxyethyl acetate	112-07-2 203-933-3 607-038-00-2 01-2119475112-47	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312	>= 1 - <= 5
		Acute toxicity estimate	
		Acute oral toxicity: 1.880 mg/kg Acute inhalation toxicity (vapor): 11 mg/l Acute dermal toxicity: 1.500 mg/kg	

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Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	1065336-91-5 915-687-0 01-2119491304-40	Skin Sens. 1A; H317 Repr. 2; H361f Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,1 - < 0,5
		M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	

For explanation of abbreviations see section 16.

**SECTION 4: First aid measures**

**4.1 Description of first-aid measures**

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
Move out of dangerous area.  
Take off contaminated clothing and shoes immediately.  
Do not leave the victim unattended.  
Symptoms of poisoning may appear several hours later.  
Show this material safety data sheet to the doctor in attendance.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
- If inhaled : Move to fresh air.  
Keep patient warm and at rest.  
If breathing is irregular or stopped, administer artificial respiration.  
Call a physician immediately.
- In case of skin contact : Wash off immediately with soap and plenty of water.  
Call a physician if irritation develops or persists.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Keep eye wide open while rinsing.  
If easy to do, remove contact lens, if worn.  
Consult a physician.
- If swallowed : Do NOT induce vomiting.  
Call a physician immediately.

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

- Risks : Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.

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May cause respiratory irritation.  
May cause drowsiness or dizziness.  
May cause damage to organs through prolonged or repeated exposure.

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

Treatment : Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
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 products : Hazardous decomposition products due to incomplete combustion  
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

### 5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances 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.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.  
Evacuate personnel to safe areas.

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Ensure adequate ventilation, especially in confined areas.  
Remove all sources of ignition.  
Do not smoke.  
Avoid contact with skin, eyes and clothing.  
In the case of vapor formation use a respirator with an approved filter.

### 6.2 Environmental precautions

Environmental precautions : Prevent spreading over a wide area (e.g., by containment or oil barriers).  
Do not flush into surface water or sanitary sewer system.  
Local authorities should be advised if significant spillages cannot be contained.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.  
Do not flush with water.

### 6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Keep container closed when not in use.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Wear personal protective equipment.

Advice on protection against fire and explosion : Vapors may form explosive mixtures with air. Keep away from open flames, hot surfaces and sources of ignition. Do not smoke. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

Further information on storage conditions : Keep away from heat and sources of ignition. Protect from moisture. Keep away from direct sunlight.

Advice on common storage : Keep away from food and drink.  
Incompatible with oxidizing agents.  
Incompatible with strong acids and bases.

Storage class (TRGS 510) : 3

### 7.3 Specific end use(s)

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Specific use(s) : No data available

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
n-butyl acetate	123-86-4	AGW	62 ppm 300 mg/m <sup>3</sup>	DE TRGS 900
		Peak-limit category: 2;(I)		
		Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child		
		STEL	150 ppm 723 mg/m <sup>3</sup>	2019/1831/E U
		Further information: Indicative		
		TWA	50 ppm 241 mg/m <sup>3</sup>	2019/1831/E U
		Further information: Indicative		
xylene	1330-20-7	TWA	50 ppm 221 mg/m <sup>3</sup>	2000/39/EC
		Further information: Identifies the possibility of significant uptake through the skin, Indicative		
		STEL	100 ppm 442 mg/m <sup>3</sup>	2000/39/EC
		Further information: Identifies the possibility of significant uptake through the skin, Indicative		
		AGW	50 ppm 220 mg/m <sup>3</sup>	DE TRGS 900
		Peak-limit category: 2;(II)		
		Further information: Skin absorption		
2-methoxy-1-methylethyl acetate	108-65-6	STEL	100 ppm 550 mg/m <sup>3</sup>	2000/39/EC
		Further information: Identifies the possibility of significant uptake through the skin, Indicative		
		TWA	50 ppm 275 mg/m <sup>3</sup>	2000/39/EC
		Further information: Identifies the possibility of significant uptake through the skin, Indicative		
		AGW	50 ppm 270 mg/m <sup>3</sup>	DE TRGS 900
		Peak-limit category: 1;(I)		
		Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child		
ethylbenzene	100-41-4	TWA	100 ppm 442 mg/m <sup>3</sup>	2000/39/EC
		Further information: Identifies the possibility of significant uptake through the skin, Indicative		



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		STEL	200 ppm 884 mg/m <sup>3</sup>	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		AGW	20 ppm 88 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit category: 2;(II)			
	Further information: Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
2-butoxyethyl acetate	112-07-2	TWA	20 ppm 133 mg/m <sup>3</sup>	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	50 ppm 333 mg/m <sup>3</sup>	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		AGW (Vapour and aerosols)	10 ppm 65 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit category: 2;(I)			
	Further information: Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

### Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
xylene	1330-20-7	methylhippuric acid (all isomers): 2.000 mg/l (Urine)	Immediately after exposure or after working hours	TRGS 903
ethylbenzene	100-41-4	mandelic acid + phenylglyoxylic acid: 250 mg/g Creatinine (Urine)	Immediately after exposure or after working hours	TRGS 903
2-butoxyethyl acetate	112-07-2	butoxy acetic acid: 150 mg/g Creatinine (Urine)	In case of long-term exposure: after more than one shift, Immediately after exposure or after working hours	TRGS 903

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

Substance name	End Use	Routes of exposure	Potential health effects	Value
n-butyl acetate	Workers	Inhalation	Long-term systemic effects, Long-term local effects	300 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	600 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects, Acute sys-	11 mg/kg bw/day

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			temic effects	
	Consumers	Inhalation	Long-term systemic effects, Long-term local effects	35,7 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute systemic effects	300 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects, Acute systemic effects	6 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects, Acute systemic effects	2 mg/kg bw/day
xylene	Workers	Inhalation	Long-term systemic effects, Long-term local effects	221 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects, Acute local effects	442 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	212 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects, Long-term local effects	65,3 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute systemic effects, Acute local effects	260 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	125 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	12,5 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	796 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	33 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	320 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	36 mg/kg bw/day
Hydrocarbons, C9, Aromatics	Workers	Inhalation	Long-term systemic effects	150 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	25 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	11 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	11 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	32 mg/m <sup>3</sup>
Reaction mass of Bis(1,2,2,6,6-	Workers	Inhalation	Long-term systemic effects	0,68 mg/m <sup>3</sup>

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pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate				
	Workers	Dermal	Long-term systemic effects	0,5 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,17 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	0,25 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,05 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
n-butyl acetate	Fresh water	0,18 mg/l
	Sea water	0,018 mg/l
	Fresh water sediment	0,981 mg/kg dry weight (d.w.)
	Sea sediment	0,098 mg/kg dry weight (d.w.)
	Sewage treatment plant (STP)	35,6 mg/l
xylene	Soil	0,09 mg/kg dry weight (d.w.)
	Fresh water	0,327 mg/l
	Sea water	0,327 mg/l
	Fresh water sediment	12,46 mg/kg dry weight (d.w.)
	Sea sediment	12,46 mg/kg dry weight (d.w.)
2-methoxy-1-methylethyl acetate	Soil	2,31 mg/kg dry weight (d.w.)
	Sewage treatment plant (STP)	6,58 mg/l
	Fresh water	0,635 mg/l
	Sea water	0,064 mg/l
	Sewage treatment plant (STP)	100 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Fresh water sediment	3,29 mg/kg dry weight (d.w.)
	Sea sediment	0,329 mg/kg dry weight (d.w.)
	Soil	0,29 mg/kg dry weight (d.w.)
	Fresh water	0,002 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Fresh water sediment	1,05 mg/kg dry weight (d.w.)
	Sea sediment	0,11 mg/kg dry weight (d.w.)
	Soil	0,21 mg/kg dry

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weight (d.w.)

### 8.2 Exposure controls

#### Personal protective equipment

- Eye/face protection : Safety glasses with side-shields conforming to EN166
- Hand protection
- Material : butyl-rubber
- Material : Fluorinated rubber
- Material : PVA
- Material : Nitrile rubber
- Break through time : > 480 min
- Glove thickness :  $\geq 0,7$  mm
- Directive : DIN EN 374
- Protective index : Class 6
- Remarks : Gloves should be discarded and replaced if there is any indication 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
- Respiratory protection : Apply technical measures to comply with the occupational exposure limits.  
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
- Filter type : Combined particulates and organic vapor type (A-P)
- Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
Avoid contact with the skin and the eyes.  
Use only with adequate ventilation.

#### Environmental exposure controls

- Soil : Avoid subsoil penetration.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

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Physical state	:	liquid
Color	:	colorless
Odor	:	characteristic
Odor Threshold	:	not determined not determined
Melting point/range	:	not determined
Boiling point/boiling range	:	124 °C
Upper explosion limit / Upper flammability limit	:	Upper explosion limit 15 %(V)
Lower explosion limit / Lower flammability limit	:	Lower explosion limit 0,7 %(V)
Flash point	:	> 23 °C
Autoignition temperature	:	not determined
pH	:	Not applicable substance/mixture is non-soluble (in water)
Viscosity		
Viscosity, dynamic	:	127 mPa.s (20 °C)
Viscosity, kinematic	:	> 20,5 mm <sup>2</sup> /s (40 °C)
Solubility(ies)		
Water solubility	:	immiscible
Partition coefficient: n-octanol/water	:	not determined
Vapor pressure	:	10,7 hPa (20 °C)
Density	:	0,97 - 0,99 g/cm <sup>3</sup> (20 °C)

### 9.2 Other information

Explosives	:	Not explosive In use, may form flammable/explosive vapor-air mixture.
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if used as directed.

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### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Incompatible with strong acids and bases.  
Reaction with strong oxidizing agents.

### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

### 10.5 Incompatible materials

Materials to avoid : Strong acids and strong bases  
Strong oxidizing agents

### 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).

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## 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

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Calculation method

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

#### Components:

##### **n-butyl acetate:**

Acute oral toxicity : LD50 (Rat): 10.760 mg/kg  
Method: OECD Test Guideline 423

Acute inhalation toxicity : LD50 (Rat): > 21 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Dermal (Rabbit): 14.112 mg/kg  
Method: OECD Test Guideline 402

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### **xylene:**

Acute oral toxicity : LD50 Oral (Rat): 3.523 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 11 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Expert judgment

Acute dermal toxicity : LD50 (Rabbit): > 1.700 mg/kg

### **2-methoxy-1-methylethyl acetate:**

Acute oral toxicity : LD50 Oral (Rat): 6.190 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg  
Method: OECD Test Guideline 402

### **Hydrocarbons, C9, Aromatics:**

Acute oral toxicity : LD50 Oral (Rat, female): ca. 3.492 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 6,193 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit): > 3.160 mg/kg  
Method: OECD Test Guideline 402

### **ethylbenzene:**

Acute oral toxicity : LD50 (Rat): 3.500 mg/kg

### **2-butoxyethyl acetate:**

Acute oral toxicity : LD50 Oral (Rat): 1.880 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : Acute toxicity estimate: 11 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Expert judgment

Acute dermal toxicity : LD50 Dermal (Rabbit): 1.500 mg/kg

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### **Skin corrosion/irritation**

Causes skin irritation.

#### **Components:**

##### **xylene:**

Result : Skin irritation

##### **Hydrocarbons, C9, Aromatics:**

Result : Repeated exposure may cause skin dryness or cracking.

### **Serious eye damage/eye irritation**

Causes serious eye irritation.

#### **Components:**

##### **xylene:**

Result : Moderate eye irritation

### **Respiratory or skin sensitization**

#### **Skin sensitization**

May cause an allergic skin reaction.

#### **Respiratory sensitization**

Not classified based on available information.

#### **Components:**

##### **Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:**

Assessment : The product is a skin sensitizer, sub-category 1A.

### **Germ cell mutagenicity**

Not classified based on available information.

#### **Components:**

##### **Hydrocarbons, C9, Aromatics:**

Germ cell mutagenicity- Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

### **Carcinogenicity**

Not classified based on available information.

#### **Components:**

##### **Hydrocarbons, C9, Aromatics:**

Carcinogenicity - Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)



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### Reproductive toxicity

Not classified based on available information.

### Components:

#### Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:

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

### STOT-single exposure

May cause respiratory irritation.  
May cause drowsiness or dizziness.

### Components:

#### xylene:

Assessment : May cause respiratory irritation.

#### 2-methoxy-1-methylethyl acetate:

Routes of exposure : Oral  
Target Organs : Central nervous system  
Assessment : May cause drowsiness or dizziness.

### Hydrocarbons, C9, Aromatics:

Assessment : May cause respiratory irritation., May cause drowsiness or dizziness.

### STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

### Components:

#### xylene:

Target Organs : Central nervous system, Liver, Kidney  
Assessment : May cause damage to organs through prolonged or repeated exposure.

#### ethylbenzene:

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

### Aspiration toxicity

Not classified based on available information.

### Components:

#### xylene:

May be fatal if swallowed and enters airways.

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### Hydrocarbons, C9, Aromatics:

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

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### **n-butyl acetate:**

Toxicity to fish : (Pimephales promelas (fathead minnow)): 18 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 44 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 647,7 mg/l  
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 23 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

##### **xylene:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2,6 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 4,6 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC: > 1,3 mg/l  
Exposure time: 56 d

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Species: *Oncorhynchus mykiss* (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,96 mg/l  
Exposure time: 7 d  
Species: *Ceriodaphnia dubia* (water flea)  
Method: Regulation (EC) No. 440/2008, Annex, C.20

**2-methoxy-1-methylethyl acetate:**

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 130 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 500 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: Regulation (EC) No. 440/2008, Annex, C.2

Toxicity to algae/aquatic plants : EC50 (*Pseudokirchneriella subcapitata* (green algae)): > 1.000 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC: 47,5 mg/l  
Exposure time: 14 d  
Species: *Oryzias latipes* (Orange-red killifish)  
Method: OECD Test Guideline 204

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC:  $\geq$  100 mg/l  
Exposure time: 21 d  
Species: *Daphnia magna* (Water flea)  
Method: OECD Test Guideline 211

**Hydrocarbons, C9, Aromatics:**

Toxicity to fish : LL50 (*Oncorhynchus mykiss* (rainbow trout)): 9,2 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EL50 (*Daphnia magna* (Water flea)): 3,2 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : NOELR (*Pseudokirchneriella subcapitata* (green algae)): 1 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOELR: 1,228 mg/l  
Exposure time: 28 d  
Species: *Oncorhynchus mykiss* (rainbow trout)

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: 2,144 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

### Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

### ethylbenzene:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4,2 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,8 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Scenedesmus capricornutum (fresh water algae)): 4,6 mg/l  
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1 mg/l  
Species: Ceriodaphnia dubia (water flea)

### 2-butoxyethyl acetate:

Toxicity to fish : LC50 (Fish): 28 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 30 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia dubia (water flea)  
Method: OECD Test Guideline 211

### Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0,9 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

NOEC (Danio rerio (zebra fish)): 0,22 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 1,68 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1,0 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

### 12.2 Persistence and degradability

#### Components:

##### **n-butyl acetate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 83 %  
Exposure time: 28 d

##### **xylene:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301

##### **2-methoxy-1-methylethyl acetate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 90 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

##### **Hydrocarbons, C9, Aromatics:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 78 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

##### **ethylbenzene:**

Biodegradability : Result: rapidly degradable  
Biodegradation: 79 %  
Exposure time: 10 d

##### **2-butoxyethyl acetate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 88 %  
Exposure time: 28 d

##### **Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:**

Biodegradability : Biodegradation: 38 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

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### 12.3 Bioaccumulative potential

#### Components:

##### **n-butyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 2,3 (25 °C)  
Method: OECD Test Guideline 117

##### **xylene:**

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)  
Bioconcentration factor (BCF): 25,9

Partition coefficient: n-octanol/water : log Pow: 3,155 (20 °C)

##### **2-methoxy-1-methylethyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 1,2 (20 °C)  
pH: 6,8  
Method: OECD Test Guideline 117

##### **ethylbenzene:**

Partition coefficient: n-octanol/water : log Pow: 3,6 (20 °C)

##### **2-butoxyethyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 1,51 (20 °C)

##### **Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:**

Bioaccumulation : Bioconcentration factor (BCF): < 9,7

Partition coefficient: n-octanol/water : log Pow: 2,37 - 2,77 (25 °C)  
pH: 7  
Method: OECD Test Guideline 107

### 12.4 Mobility in soil

#### Components:

##### **Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:**

Distribution among environmental compartments : log Koc: 5,31

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### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : 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.

### 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

**Product:**

Additional ecological information : No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : Do not dispose of with domestic refuse.  
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.  
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 handling site for recycling or disposal.  
Store containers and offer for recycling of material when in accordance with the local regulations.  
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 01 11, waste paint and varnish containing organic solvents or other hazardous substances

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## SECTION 14: Transport information

### 14.1 UN number or ID number

ADG : UN 1263

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**ADN** : UN 1263  
**ADR** : UN 1263  
**RID** : UN 1263  
**IMDG** : UN 1263  
**IATA** : UN 1263

### 14.2 UN proper shipping name

**ADG** : PAINT  
**ADN** : PAINT  
**ADR** : PAINT  
**RID** : PAINT  
**IMDG** : PAINT  
**IATA** : PAINT

### 14.3 Transport hazard class(es)

	Class	Subsidiary risks
<b>ADG</b>	: 3	
<b>ADN</b>	: 3	
<b>ADR</b>	: 3	
<b>RID</b>	: 3	
<b>IMDG</b>	: 3	
<b>IATA</b>	: 3	

### 14.4 Packing group

**ADG**  
Packing group : III

**ADN**  
Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3

**ADR**  
Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3  
Tunnel restriction code : (D/E)

**RID**  
Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3



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### IMDG

Packing group : III  
Labels : 3  
EmS Code : F-E, S-E

### IATA (Cargo)

Packing instruction (cargo aircraft) : 366  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

### IATA (Passenger)

Packing instruction (passenger aircraft) : 355  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

## 14.5 Environmental hazards

### ADG

Environmentally hazardous : no

### ADN

Environmentally hazardous : no

### ADR

Environmentally hazardous : no

### RID

Environmentally hazardous : no

### IMDG

Marine pollutant : no

## 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 75, 3

If you intend to use this product as tattoo ink, please contact your ven-

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REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. P5c FLAMMABLE LIQUIDS

Water hazard class (Germany) : WGK 2 obviously hazardous to water  
Classification according to AwSV, Annex 1 (5.2)

Volatile organic compounds : Directive 2004/42/EC  
Volatile organic compounds (VOC) content: < 840 g/l  
VOC content for the product in a ready to use condition.

### Other regulations:

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

### 15.2 Chemical Safety Assessment

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

This Product is considered compliant to AIIC (Australian Inventory of Industrial Chemicals).

## SECTION 16: Other information

### Full text of H-Statements

H225	: Highly flammable liquid and vapor.
H226	: Flammable liquid and vapor.
H302	: Harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
H312	: Harmful in contact with skin.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.

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H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H335	: May cause respiratory irritation.
H336	: May cause drowsiness or dizziness.
H361f	: Suspected of damaging fertility.
H373	: May cause damage to organs through prolonged or repeated exposure.
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.
H412	: Harmful 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
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Repr.	: Reproductive toxicity
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitization
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure
2000/39/EC	: Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2019/1831/EU	: Europe. Commission Directive 2019/1831/EU establishing a fifth list of indicative occupational exposure limit values
DE TRGS 900	: Germany. TRGS 900 - Occupational exposure limit values.
TRGS 903	: c - Biological limit values
2000/39/EC / TWA	: Limit Value - eight hours
2000/39/EC / STEL	: Short term exposure limit
2019/1831/EU / TWA	: Limit Value - eight hours
2019/1831/EU / STEL	: Short term exposure limit
DE TRGS 900 / AGW	: Time Weighted Average

ADG – Australian Dangerous Goods; 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

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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

#### Classification of the mixture:

Flam. Liq. 3	H226
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
STOT SE 3	H336
STOT SE 3	H335
STOT RE 2	H373
Aquatic Chronic 3	H412

#### Classification procedure:

Based on product data or assessment
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

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.

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## Carsystem 2K Hardener HS/SR Standard

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

#### 1.1 Product identifier

Trade name : Carsystem 2K Hardener HS/SR Standard

Product code : CS151910

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

Use of the Sub-  
stance/Mixture : Curing chemical

Recommended restrictions  
on use : Restricted to professional users. Attention - Avoid exposure -  
obtain special instructions before use.

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

Company : Vosschemie GmbH  
Esinger Steinweg 50  
25436 Uetersen  
Germany  
info@vosschemie.de

Telephone : 04122 717 0  
Telefax : 04122 717158

**Responsible Department** : Laboratory  
  
04122 717 0  
sds@vosschemie.de

#### 1.4 Emergency telephone

Telephone : Giftinformationszentrum (GIZ)-Nord, Göttingen, Deutschland  
0551 19240

#### **IMPORTED BY:**

**Sydney Automotive Paints & Equipment PTY LTD Unit A3, 366 Edgar St. Condell  
Park NSW 2200 AUSTRALIA, Tel. +02 9772 9000 , +02 9772 9001 .**

**Emergency telephone number: If poisoning occurs contact a doctor or Poisons  
Information Centre. Phone Australia 131 126, New Zealand 0800 764 766**

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### SECTION 2: Hazards identification



#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapor.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.

#### 2.2 Label elements

##### Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms	:	 
Signal Word	:	Warning
Hazard Statements	:	H226 Flammable liquid and vapor. H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.
Supplemental Hazard Statements	:	EUH066 Repeated exposure may cause skin dryness or cracking.
Precautionary Statements	:	<b>Prevention:</b> P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing mist or vapors. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. <b>Response:</b> P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. <b>Disposal:</b>

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P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

### Hazardous ingredients which must be listed on the label:

n-butyl acetate  
hexamethylene-1,6-diisocyanate homopolymer  
2-methoxy-1-methylethyl acetate  
4-isocyanatosulphonyltoluene

### Additional Labeling

EUH204 Contains isocyanates. May produce an allergic reaction.

### 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 : Paint related material

Mixture  
contains  
Isocyanates

### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) EUH066	>= 25 - <= 50
hexamethylene-1,6-diisocyanate homopolymer	28182-81-2 500-060-2 01-2119488934-20	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system)	>= 25 - <= 50

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		Acute toxicity estimate  Acute inhalation toxicity (dust/mist): 1,5 mg/l Acute inhalation toxicity (vapor): 11 mg/l	
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 10 - <= 25
4-isocyanatosulphonyltoluene	4083-64-1 223-810-8 615-012-00-7 01-2119980050-47	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 STOT SE 3; H335 (Respiratory system) EUH014  specific concentration limit Eye Irrit. 2; H319 >= 5 % STOT SE 3; H335 >= 5 % Skin Irrit. 2; H315 >= 5 %	>= 0,1 - < 0,5

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first-aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
Move out of dangerous area.  
Take off contaminated clothing and shoes immediately.  
Wash contaminated clothing before re-use.  
Do not leave the victim unattended.  
Symptoms of poisoning may appear several hours later.  
Show this material safety data sheet to the doctor in attendance.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
- If inhaled : Move to fresh air.  
Keep patient warm and at rest.  
If breathing is irregular or stopped, administer artificial respira-



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- tion.  
Call a physician immediately.
- In case of skin contact : Wash off immediately with soap and plenty of water.  
Call a physician if irritation develops or persists.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,  
for at least 15 minutes.  
Keep eye wide open while rinsing.  
If easy to do, remove contact lens, if worn.  
Consult a physician.
- If swallowed : Rinse mouth with water.  
Do NOT induce vomiting.  
Call a physician immediately.

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

- Risks : May cause an allergic skin reaction.  
Harmful if inhaled.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Repeated exposure may cause skin dryness or cracking.

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

- Treatment : Treat symptomatically.  
Keep under medical supervision for at least 48 hours.
- 

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Dry powder  
Sand
- Unsuitable extinguishing media : High volume water jet  
Water spray 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.  
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.  
Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Hazardous decomposition products due to incomplete combustion  
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).  
Nitrogen oxides (NO<sub>x</sub>)  
Isocyanates

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### 5.3 Advice for firefighters

- Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Complete suit protecting against chemicals
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- 

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Wear personal protective equipment.  
Evacuate personnel to safe areas.  
Ensure adequate ventilation, especially in confined areas.  
Avoid contact with skin, eyes and clothing.  
In the case of vapor formation use a respirator with an approved filter.

### 6.2 Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

### 6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. After approximately one hour, transfer to waste container and do not seal, due to evolution of carbon dioxide. Waste must NOT be included in a tight way.

### 6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Avoid exposure - obtain special instructions before use. All processes must be supervised by specialists or authorized personnel. Provide sufficient air exchange and/or exhaust in work rooms. Keep container closed when not in use.
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Wear personal protective equipment.  
Avoid formation of aerosol.  
Do not breathe vapors, aerosols.  
Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

Advice on protection against fire and explosion : Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge. Vapors may form explosive mixture with air.

Hygiene measures : General industrial hygiene practice. Persons already sensitized to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. Take off all contaminated clothing immediately. Wash contaminated clothing before re-use.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

Further information on storage conditions : Storage must be in accordance with the BetrSichV (Germany). Keep locked up or in an area accessible only to qualified or authorized persons. Protect from moisture.

Advice on common storage : Keep away from food and drink.  
Incompatible with acids and bases.  
  
Incompatible with oxidizing agents.

Storage class (TRGS 510) : 3

### 7.3 Specific end use(s)

Specific use(s) : No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
n-butyl acetate	123-86-4	AGW	62 ppm 300 mg/m <sup>3</sup>	DE TRGS 900
Peak-limit category: 2;(I)				
Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child				
		STEL	150 ppm 723 mg/m <sup>3</sup>	2019/1831/EU

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	Further information: Indicative			
		TWA	50 ppm 241 mg/m <sup>3</sup>	2019/1831/EU
	Further information: Indicative			
2-methoxy-1-methylethyl acetate	108-65-6	STEL	100 ppm 550 mg/m <sup>3</sup>	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 275 mg/m <sup>3</sup>	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		AGW	50 ppm 270 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit category: 1;(I)			
	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 exposure	Potential health effects	Value
n-butyl acetate	Workers	Inhalation	Long-term systemic effects, Long-term local effects	300 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	600 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects, Acute systemic effects	11 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects, Long-term local effects	35,7 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute systemic effects	300 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects, Acute systemic effects	6 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects, Acute systemic effects	2 mg/kg bw/day
hexamethylene-1,6-diisocyanate homopolymer	Workers	Inhalation	Long-term local effects	0,5 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	1 mg/m <sup>3</sup>
2-methoxy-1-methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	796 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	33 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic	320 mg/kg

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			effects	bw/day
	Consumers	Oral	Long-term systemic effects	36 mg/kg bw/day
4-isocyanatosulphonyltoluene	Workers	Inhalation	Long-term systemic effects	3,24 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	0,92 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0,8 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	0,46 mg/kg
	Consumers	Oral	Long-term systemic effects	0,46 mg/kg

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

Substance name	Environmental Compartment	Value
n-butyl acetate	Fresh water	0,18 mg/l
	Sea water	0,018 mg/l
	Fresh water sediment	0,981 mg/kg dry weight (d.w.)
	Sea sediment	0,098 mg/kg dry weight (d.w.)
	Sewage treatment plant (STP)	35,6 mg/l
	Soil	0,09 mg/kg dry weight (d.w.)
hexamethylene-1,6-diisocyanate homopolymer	Fresh water	0,1 mg/l
	Sea water	0,01 mg/l
	Sewage treatment plant (STP)	100 mg/l
	Fresh water sediment	2530 mg/kg
	Sea sediment	253 mg/kg
	Soil	505 mg/kg
2-methoxy-1-methylethyl acetate	Fresh water	0,635 mg/l
	Sea water	0,064 mg/l
	Sewage treatment plant (STP)	100 mg/l
	Fresh water sediment	3,29 mg/kg dry weight (d.w.)
	Sea sediment	0,329 mg/kg dry weight (d.w.)
	Soil	0,29 mg/kg dry weight (d.w.)
4-isocyanatosulphonyltoluene	Fresh water	0,03 mg/l
	Sea water	0,003 mg/l
	Sewage treatment plant (STP)	0,4 mg/l
	Fresh water sediment	0,172 mg/kg
	Sea sediment	0,017 mg/kg

**8.2 Exposure controls****Personal protective equipment**

Eye/face protection : Safety glasses with side-shields conforming to EN166

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Hand protection	
Material	: Nitrile rubber
Material	: PVA
Material	: butyl-rubber
Break through time	: > 480 min
Glove thickness	: >= 0,7 mm
Directive	: DIN EN 374
Protective index	: Class 6
Remarks	: Gloves should be discarded and replaced if there is any indication 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.
Skin and body protection	: Please wear suitable protective clothing, e.g. made of cotton or heat-resistant synthetic fibres. Long sleeved clothing
Respiratory protection	: In order to avoid inhalation of spray-mist and sanding dust, all spraying and sanding must be done wearing adequate respirator. Apply technical measures to comply with the occupational exposure limits. Equipment should conform to EN 14387
Filter type	: Combined particulates and organic vapor type (A-P)
Protective measures	: Ensure that eye flushing systems and safety showers are located close to the working place. Handle in accordance with good industrial hygiene and safety practice.
<b>Environmental exposure controls</b>	
Soil	: Avoid subsoil penetration.

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state	: liquid
Color	: colorless
Odor	: characteristic
Odor Threshold	: not determined

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not determined

Melting point/range : not determined

Boiling point/boiling range : 124 °C

Upper explosion limit / Upper flammability limit : Upper explosion limit 15 %(V)

Lower explosion limit / Lower flammability limit : Lower explosion limit 1,2 %(V)

Flash point : > 23 °C

Autoignition temperature : not determined

pH : Not applicable substance/mixture reacts with water

Viscosity

    Viscosity, dynamic : not determined

    Viscosity, kinematic : not determined

Solubility(ies)

    Water solubility : Reacts with water.

Partition coefficient: n-octanol/water : not determined

Vapor pressure : 10,7 hPa (20 °C)

Density : 1,0 g/cm<sup>3</sup> (20 °C)

### 9.2 Other information

Explosives : Not explosive  
In use, may form flammable/explosive vapor-air mixture.

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## 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 : Amines and alcohols cause exothermic reactions.  
Mixture reacts slowly with water resulting in evolution of CO<sub>2</sub>.  
Evolution of CO<sub>2</sub> in closed containers causes overpressure

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and produces a risk of bursting.

### 10.4 Conditions to avoid

Conditions to avoid : Avoid moisture.

### 10.5 Incompatible materials

Materials to avoid : Amines  
Alcohols  
Acids and bases  
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 (NO<sub>x</sub>)  
Isocyanates

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## SECTION 11: Toxicological information

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

#### Acute toxicity

Harmful if inhaled.

#### Product:

Acute inhalation toxicity : Acute toxicity estimate: 3 - < 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

#### Components:

##### **n-butyl acetate:**

Acute oral toxicity : LD50 (Rat): 10.760 mg/kg  
Method: OECD Test Guideline 423

Acute inhalation toxicity : LD50 (Rat): > 21 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Dermal (Rabbit): 14.112 mg/kg  
Method: OECD Test Guideline 402

##### **hexamethylene-1,6-diisocyanate homopolymer:**

Acute oral toxicity : LD50 Oral (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 423

Acute inhalation toxicity : Acute toxicity estimate: 1,5 mg/l  
Exposure time: 4 h



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Test atmosphere: dust/mist  
Method: Expert judgment

Acute toxicity estimate: 11 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Expert judgment

Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402

### **2-methoxy-1-methylethyl acetate:**

Acute oral toxicity : LD50 Oral (Rat): 6.190 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg  
Method: OECD Test Guideline 402

### **4-isocyanatosulphonyltoluene:**

Acute oral toxicity : LD50 Oral (Rat): 2.330 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402

### **Skin corrosion/irritation**

Repeated exposure may cause skin dryness or cracking.

### **Components:**

#### **hexamethylene-1,6-diisocyanate homopolymer:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404

### **Serious eye damage/eye irritation**

Not classified based on available information.

### **Components:**

#### **hexamethylene-1,6-diisocyanate homopolymer:**

Species : Rabbit  
Assessment : No eye irritation  
Method : OECD Test Guideline 405

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### Respiratory or skin sensitization

#### Skin sensitization

May cause an allergic skin reaction.

#### Respiratory sensitization

Not classified based on available information.

#### Components:

##### hexamethylene-1,6-diisocyanate homopolymer:

Test Type	: Local lymph node assay (LLNA)
Routes of exposure	: Skin contact
Species	: Mouse
Assessment	: May cause sensitization by skin contact.
Method	: OECD Test Guideline 429
Result	: positive

### Germ cell mutagenicity

Not classified based on available information.

#### Components:

##### hexamethylene-1,6-diisocyanate homopolymer:

Genotoxicity in vitro	: Test Type: Microbial mutagenesis assay (Ames test) Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: Not mutagenic in Ames Test.
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### Carcinogenicity

Not classified based on available information.

### Reproductive toxicity

Not classified based on available information.

### STOT-single exposure

May cause respiratory irritation.  
May cause drowsiness or dizziness.

#### Components:

##### hexamethylene-1,6-diisocyanate homopolymer:

Routes of exposure	: Inhalation
Assessment	: May cause respiratory irritation.

##### 2-methoxy-1-methylethyl acetate:

Routes of exposure	: Oral
Target Organs	: Central nervous system
Assessment	: May cause drowsiness or dizziness.

### STOT-repeated exposure

Not classified based on available information.

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### Repeated dose toxicity

#### Components:

##### hexamethylene-1,6-diisocyanate homopolymer:

Species : Rat, male and female  
NOAEL : 0,0033 mg/l  
Application Route : Inhalation  
Test atmosphere : dust/mist  
Exposure time : 90d  
Number of exposures : 6h / d  
Dose : 0 - 0,0005 - 0,003 - 0,0264  
Method : OECD Test Guideline 413

### Aspiration toxicity

Not classified based on available information.

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

### Further information

#### Product:

Remarks : Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### n-butyl acetate:

Toxicity to fish : (Pimephales promelas (fathead minnow)): 18 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 44 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 647,7 mg/l  
Exposure time: 72 h

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 23 mg/l  
 Exposure time: 21 d  
 Species: Daphnia magna (Water flea)  
 Method: OECD Test Guideline 211

**hexamethylene-1,6-diisocyanate homopolymer:**

Toxicity to fish : LC0 (Danio rerio (zebra fish)): >= 100 mg/l  
 End point: mortality  
 Exposure time: 96 h  
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC0 (Daphnia magna (Water flea)): >= 100 mg/l  
 End point: Immobilization  
 Exposure time: 48 h  
 Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : NOEC (Desmodesmus subspicatus (green algae)): 50 mg/l  
 End point: Growth rate  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201

**2-methoxy-1-methylethyl acetate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 130 mg/l  
 Exposure time: 96 h  
 Test Type: static test  
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 500 mg/l  
 Exposure time: 48 h  
 Test Type: static test  
 Method: Regulation (EC) No. 440/2008, Annex, C.2

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 1.000 mg/l  
 Exposure time: 96 h  
 Test Type: static test  
 Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC: 47,5 mg/l  
 Exposure time: 14 d  
 Species: Oryzias latipes (Orange-red killifish)  
 Method: OECD Test Guideline 204

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 100 mg/l  
 Exposure time: 21 d  
 Species: Daphnia magna (Water flea)  
 Method: OECD Test Guideline 211

**4-isocyanatosulphonyltoluene:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 45 mg/l

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End point: mortality  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 30 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Method: OECD Test Guideline 201

### Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

## 12.2 Persistence and degradability

### Components:

#### **n-butyl acetate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 83 %  
Exposure time: 28 d

#### **hexamethylene-1,6-diisocyanate homopolymer:**

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 2 %  
Exposure time: 28 d  
Method: Regulation (EC) No. 440/2008, Annex, C.4-E

#### **2-methoxy-1-methylethyl acetate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 90 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F

#### **4-isocyanatosulphonyltoluene:**

Biodegradability : Biodegradation: 86 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

## 12.3 Bioaccumulative potential

### Components:

#### **n-butyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 2,3 (25 °C)  
Method: OECD Test Guideline 117

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### hexamethylene-1,6-diisocyanate homopolymer:

Bioaccumulation : Bioconcentration factor (BCF): 706

Partition coefficient: n-octanol/water : log Pow: 8,38

### 2-methoxy-1-methylethyl acetate:

Partition coefficient: n-octanol/water : log Pow: 1,2 (20 °C)  
pH: 6,8  
Method: OECD Test Guideline 117

### 4-isocyanatosulphonyltoluene:

Partition coefficient: n-octanol/water : log Pow: 0,6

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : 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.

## 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

### Product:

Additional ecological information : No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Do not dispose of with domestic refuse.  
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

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Dispose of in accordance with local regulations.  
Dispose of wastes in an approved waste disposal facility.  
Send to a licensed waste management company.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Store containers and offer for recycling of material when in accordance with the local regulations.  
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 05 01, waste isocyanates

### SECTION 14: Transport information

#### 14.1 UN number or ID number

ADG : UN 1263  
ADN : UN 1263  
ADR : UN 1263  
RID : UN 1263  
IMDG : UN 1263  
IATA : UN 1263

#### 14.2 UN proper shipping name

ADG : PAINT RELATED MATERIAL  
ADN : PAINT RELATED MATERIAL  
ADR : PAINT RELATED MATERIAL  
RID : PAINT RELATED MATERIAL  
IMDG : PAINT RELATED MATERIAL  
IATA : PAINT RELATED MATERIAL

#### 14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADG	: 3	
ADN	: 3	
ADR	: 3	
RID	: 3	
IMDG	: 3	
IATA	: 3	

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### 14.4 Packing group

#### ADG

Packing group : III

#### ADN

Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3

#### ADR

Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3  
Tunnel restriction code : (D/E)

#### RID

Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3

#### IMDG

Packing group : III  
Labels : 3  
EmS Code : F-E, S-E

#### IATA (Cargo)

Packing instruction (cargo aircraft) : 366  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

#### IATA (Passenger)

Packing instruction (passenger aircraft) : 355  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

### 14.5 Environmental hazards

#### ADG

Environmentally hazardous : no

#### ADN

Environmentally hazardous : no

#### ADR

Environmentally hazardous : no

#### RID

Environmentally hazardous : no

#### IMDG

Marine pollutant : no



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### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 75, 3

If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. P5c FLAMMABLE LIQUIDS

Water hazard class (Germany) : WGK 1 slightly water endangering  
Classification according to AwSV, Annex 1 (5.2)

#### Other regulations:

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

### 15.2 Chemical Safety Assessment

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

This Product is considered compliant to AIIIC (Australian Inventory of Industrial Chemicals).

### SECTION 16: Other information

#### Full text of H-Statements

H226 : Flammable liquid and vapor.  
H315 : Causes skin irritation.  
H317 : May cause an allergic skin reaction.  
H319 : Causes serious eye irritation.  
H332 : Harmful if inhaled.  
H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 : May cause respiratory irritation.  
H336 : May cause drowsiness or dizziness.  
EUH014 : Reacts violently with water.  
EUH066 : Repeated exposure may cause skin dryness or cracking.

#### Full text of other abbreviations

Acute Tox. : Acute toxicity  
Eye Irrit. : Eye irritation  
Flam. Liq. : Flammable liquids  
Resp. Sens. : Respiratory sensitization  
Skin Irrit. : Skin irritation  
Skin Sens. : Skin sensitization  
STOT SE : Specific target organ toxicity - single exposure  
2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values  
2019/1831/EU : Europe. Commission Directive 2019/1831/EU establishing a fifth list of indicative occupational exposure limit values  
DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.  
2000/39/EC / TWA : Limit Value - eight hours  
2000/39/EC / STEL : Short term exposure limit  
2019/1831/EU / TWA : Limit Value - eight hours  
2019/1831/EU / STEL : Short term exposure limit  
DE TRGS 900 / AGW : Time Weighted Average

ADG – Australian Dangerous Goods; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - 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

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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; TECl - 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

Training advice : Provide adequate information, instruction and training for operators.

### Classification of the mixture:

Flam. Liq. 3	H226
Acute Tox. 4	H332
Skin Sens. 1	H317
STOT SE 3	H336
STOT SE 3	H335

### Classification procedure:

Based on product data or assessment
Expert judgment and weight of evidence determination.
Calculation method
Calculation method
Calculation method

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.

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