



Rudolf Hensel GmbH  
21039 Börnsen

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

### 1.1 Product identifier

**HENSOTOP 2K PU Stamm**

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

#### 1.2.1 Relevant uses

Top coat

#### 1.2.2 Uses advised against

None known.

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

#### Company

Rudolf Hensel GmbH  
Lauenburger Landstr. 11  
21039 Börnsen / GERMANY  
Phone +49 (0)40-72 10 62 10  
Fax +49 (0)40-72 10 62 52  
Homepage [www.rudolf-hensel.de](http://www.rudolf-hensel.de)  
E-mail [info@rudolf-hensel.de](mailto:info@rudolf-hensel.de)

#### Address enquiries to

#### Technical information

[info@rudolf-hensel.de](mailto:info@rudolf-hensel.de)

#### Safety Data Sheet

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de) (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

### 1.4 Emergency telephone number

#### Company

+49 (0)40-72 10 62 10 (7:00 - 17:00 CET), +49 (0)172 4115390 (17:00 - 07:00 CET)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Flam. Liq. 3: H226 Flammable liquid and vapour.

Skin Irrit. 2: H315 Causes skin irritation.

Eye Irrit. 2: H319 Causes serious eye irritation.

STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.

Skin Sens. 1: H317 May cause an allergic skin reaction.

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

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## 2.2 Label elements

### Hazard pictograms



### Signal word

WARNING

### Contains:

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

Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine

Reaction mass of ethylbenzene and xylene

### Hazard statements

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P260 Do not breathe vapours / spray.

P271 Use only outdoors or in a well-ventilated area.

P362+P364 Take off contaminated clothing and wash it before reuse.

P314 Get medical advice / attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/national regulation.

### Special labelling

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

### 2004/42/CE

< 500 g/l II A j SB Two-pack reactive performance coatings (max. 500 g/l)

## 2.3 Other hazards

### Human health dangers

If swallowed or in the event of vomiting, risk of product entering the lungs.

Contains no ingredients with endocrine-disrupting properties.

It is essential for pregnant women to avoid inhaling the product and not to let it come in contact with the skin.

### Environmental hazards

Does not contain any PBT or vPvB substances.

### Other hazards

Further hazards were not determined with the current level of knowledge.

## SECTION 3: Composition / Information on ingredients

### 3.1 Substances

not applicable

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### 3.2 Mixtures

Range [%]	Substance
10 - < 20	n-Butyl acetate
	CAS: 123-86-4, EINECS/ELINCS: 204-658-1, EU-INDEX: 607-025-00-1, Reg-No.: 01-2119485493-29-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - STOT SE 3: H336 - EUH066
5 - 15	Titanium dioxide
	CAS: 13463-67-7, EINECS/ELINCS: 236-675-5, Reg-No.: 01-2119489379-17-XXXX
5 - 15	Reaction mass of ethylbenzene and xylene
	EINECS/ELINCS: 905-588-0, Reg-No.: 01-2119488216-32-XXXX, 01-2119486136-34-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H312 H332 - Asp. Tox. 1: H304 - Skin Irrit. 2: H315 - Eye Irrit. 2: H319 - STOT SE 3: H335 - STOT RE 2: H373
	SCL [%]: >= 10: STOT RE 2: H373
<1	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
	CAS: 1065336-91-5, EINECS/ELINCS: 915-687-0, Reg-No.: 01-2119491304-40-XXXX
	GHS/CLP: Skin Sens. 1A: H317 - Repr. 2: H361f - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M-Factor (acute): 1, M-Factor (chronic): 1
<1	Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine
	CAS: 162627-17-0, EINECS/ELINCS: 605-296-0, Reg-No.: 01-2119970640-38-XXXX GHS/CLP: Skin Sens. 1A: H317

Comment on component parts

For full text of H-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

Take off contaminated clothing and wash before reuse.

#### Inhalation

Remove the victim into fresh air and keep him calm.  
In the event of symptoms seek medical treatment.

#### Skin contact

In case of contact with skin wash off immediately with soap and water.  
Consult a doctor if skin irritation persists.

#### Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

#### Ingestion

Consult a doctor immediately.  
Do not induce vomiting.  
Rinse out mouth and give plenty of water to drink.

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

Irritant effects  
Vertigo  
Allergic reactions

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

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water spray jet.  
Carbon dioxide.  
Foam.  
Dry powder.

#### Extinguishing media that must not be used

Full water jet.



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## 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

## 5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

Collect contaminated firefighting water separately, must not be discharged into the drains.

## SECTION 6: Accidental release measures

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

Keep away from all sources of ignition.

Ensure adequate ventilation.

Use breathing apparatus if exposed to vapours.

Use personal protective equipment (protective gloves, safety glasses, protective clothing).

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

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

Take up mechanically.

Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).

Dispose of absorbed material in accordance with the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provide suitable vacuuming at the processing machines and in the processing area.

Provide good room ventilation even at ground level (vapours are heavier than air).

Vapours can form an explosive mixture with air.

Take precautionary measures against static discharges.

Keep away from all sources of ignition - Refrain from smoking.

Ignitable mixtures can be formed in the empty container.

Apparates and equipments must be conform in accordance to standard of storage and handling of flammable products.

Do not eat, drink, smoke or take drugs at work.

Take off contaminated clothing and wash before reuse.

After worktime and before work breaks the affected skin areas must be thoroughly cleaned.

Use barrier skin cream.

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

Provide solvent-resistant and impermeable floor.

Keep only in original container.

Prevent penetration into the ground.

Provide floor with bunding.

Do not store together with oxidizing agents.

Keep container tightly closed.

Keep container in a well-ventilated place.

Protect from heat/overheating.

Keep in a cool place.

storage class (TRGS 510)

Storage class 3 (TRGS 510)



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### 7.3 Specific end use(s)

See product use, SECTION 1.2



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**SECTION 8: Exposure controls / personal protection**

**8.1 Control parameters**

**Ingredients with occupational exposure limits to be monitored DE (TRGS 900)**

Substance
n-Butyl acetate
CAS: 123-86-4, EINECS/ELINCS: 204-658-1, EU-INDEX: 607-025-00-1, Reg-No.: 01-2119485493-29-XXXX
Exposure limit: 62 ppm, 300 mg/m <sup>3</sup> , Y, AGS, EU
Factor: 2(I)
Xylene, mixture of isomers
CAS: 1330-20-7, EINECS/ELINCS: 215-535-7, EU-INDEX: 601-022-00-9, Reg-No.: 01-2119488216-32-XXXX
Exposure limit: 50 ppm, 220 mg/m <sup>3</sup> , DFG, EU, H
Factor: 2(II)
Ethylbenzene
CAS: 100-41-4, EINECS/ELINCS: 202-849-4, EU-INDEX: 601-023-00-4, Reg-No.: 01-2119489370-35-XXXX
Exposure limit: 20 ppm, 88 mg/m <sup>3</sup> , H, Y, DFG
Factor: 2(II)
Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )
CAS: 14807-96-6, EINECS/ELINCS: 238-877-9
Exposure limit: 1,25A mg/m <sup>3</sup> , Allgemeiner Staubgrenzwert, Alveolengängige Fraktion. Einatembare Fraktion: 10E mg/m <sup>3</sup> . AGS, DFG, Y.
Factor: 2(II)

**Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)**

Substance / EC LIMIT VALUES
n-Butyl acetate
CAS: 123-86-4, EINECS/ELINCS: 204-658-1, EU-INDEX: 607-025-00-1, Reg-No.: 01-2119485493-29-XXXX
Eight hours: 50 ppm, 241 mg/m <sup>3</sup>
Short-term (15-minute): 150 ppm, 723 mg/m <sup>3</sup>
Xylene, mixture of isomers
CAS: 1330-20-7, EINECS/ELINCS: 215-535-7, EU-INDEX: 601-022-00-9, Reg-No.: 01-2119488216-32-XXXX
Eight hours: 50 ppm, 221 mg/m <sup>3</sup> , H
Short-term (15-minute): 100 ppm, 442 mg/m <sup>3</sup>
Ethylbenzene
CAS: 100-41-4, EINECS/ELINCS: 202-849-4, EU-INDEX: 601-023-00-4, Reg-No.: 01-2119489370-35-XXXX
Eight hours: 100 ppm, 442 mg/m <sup>3</sup> , H
Short-term (15-minute): 200 ppm, 884 mg/m <sup>3</sup>

**DNEL**

Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
Industrial, inhalative, Long-term - systemic effects, 1,27 mg/m <sup>3</sup>
Industrial, dermal, Long-term - systemic effects, 1,8 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 0,31 mg/m <sup>3</sup>
general population, dermal, Long-term - systemic effects, 0,9 mg/kg bw/day
general population, oral, Long-term - systemic effects, 0,18 mg/kg bw/day
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0



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There are no DNEL values established for the substance.
Reaction mass of ethylbenzene and xylene
Industrial, dermal, Long-term - systemic effects, 212 mg/kg bw/day
Industrial, inhalative (vapor), Acute - local effects, 442 mg/m <sup>3</sup>
Industrial, inhalative (vapor), Long-term - local effects, 221 mg/m <sup>3</sup>
Industrial, inhalative (vapor), Acute - systemic effects, 442 mg/m <sup>3</sup>
Industrial, inhalative (vapor), Long-term - systemic effects, 221 mg/m <sup>3</sup>
general population, oral, Long-term - systemic effects, 12,5 mg/kg bw/day
general population, dermal, Acute - local effects, 125 mg/kg bw/day
general population, inhalative (vapor), Acute - local effects, 260 mg/m <sup>3</sup>
general population, inhalative (vapor), Long-term - local effects, 65,3 mg/m <sup>3</sup>
general population, inhalative (vapor), Acute - systemic effects, 260 mg/m <sup>3</sup>
general population, inhalative (vapor), Long-term - systemic effects, 65,3 mg/m <sup>3</sup>
n-Butyl acetate, CAS: 123-86-4
Industrial, inhalative, Acute - local effects, 600 mg/m <sup>3</sup>
Industrial, inhalative, Long-term - systemic effects, 300 mg/m <sup>3</sup>
Industrial, inhalative, Long-term - local effects, 300 mg/m <sup>3</sup>
Industrial, inhalative, Acute - systemic effects, 600 mg/m <sup>3</sup>
Industrial, dermal, Long-term - systemic effects, 11 mg/kg bw/day
Industrial, dermal, Acute - systemic effects, 11 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 35,7 mg/m <sup>3</sup>
general population, inhalative, Acute - systemic effects, 300 mg/m <sup>3</sup>
general population, inhalative, Long-term - local effects, 35,7 mg/m <sup>3</sup>
general population, dermal, Long-term - systemic effects, 6 mg/kg bw/day
general population, dermal, Acute - systemic effects, 6 mg/kg bw/day
general population, oral, Long-term - systemic effects, 2 mg/kg bw/day
general population, oral, Acute - systemic effects, 2 mg/kg bw/day
general population, inhalative, Acute - local effects, 300 mg/m <sup>3</sup>
Titanium dioxide, CAS: 13463-67-7
There are no DNEL values established for the substance.

**PNEC**

Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
freshwater, 0,002 mg/l
seawater, 0 mg/l
sediment (freshwater), 1,05 mg/kg
sediment (seawater), 0,11 mg/kg
sewage treatment plants (STP), 1 mg/l
soil, 0,21 mg/kg
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
soil, 5,8 mg/kg soil dw
Reaction mass of ethylbenzene and xylene
freshwater, 0,327 mg/L
seawater, 0,327 mg/L
sewage treatment plants (STP), 6,58 mg/L
sediment (freshwater), 12,46 mg/kg sediment dw
sediment (seawater), 12,46 mg/kg sediment dw



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soil, 2,31 mg/kg soil dw
n-Butyl acetate, CAS: 123-86-4
freshwater, 0,18 mg/L (AF= 100)
seawater, 0,018 mg/L (AF= 1000)
sewage treatment plants (STP), 35,6 mg/L (AF= 10)
sediment (freshwater), 0,981 mg/kg/ dw
sediment (seawater), 0,098 mg/kg/ dw
soil, 0,09 mg/kg/ dw
Titanium dioxide, CAS: 13463-67-7
There are no PNEC values established for the substance.

## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
<b>Eye protection</b>	Safety glasses. (EN 166:2001)
<b>Hand protection</b>	For short-term contact: 0,4mm Butyl rubber, >480 min (EN 374-1/-2/-3). 0,4mm Nitrile rubber, >480 min (EN 374-1/-2/-3). In full contact: 0,4mm Viton, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	Solvent-resistant protective clothing (EN 340)
<b>Other</b>	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Avoid contact during pregnancy/ while nursing.
<b>Respiratory protection</b>	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
<b>Thermal hazards</b>	none
<b>Delimitation and monitoring of the environmental exposition</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.



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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	liquid
Color	various
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point or initial boiling point and boiling range [°C]	> 100
Flash point [°C]	27
Flammability	yes
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/cm <sup>3</sup> ]	1,2 - 1,3 (20 °C / 68,0 °F)
Relative density	not determined
Bulk density [kg/m <sup>3</sup> ]	not applicable
Solubility in water	virtually insoluble
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	not determined
Kinematic viscosity	1800 - 2500 mPa.s (20 °C)
Relative vapour density	not determined
Melting point [°C]	not determined
Auto-ignition temperature [°C]	not self-igniting
Decomposition temperature [°C]	not determined
Particle characteristics	not applicable

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.  
Uncleaned empty vessels may contain product gases which can form explosive mixtures with air.  
Reactions with oxidizing agents.



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#### **10.4 Conditions to avoid**

Strong heating.  
See SECTION 7

#### **10.5 Incompatible materials**

Oxidizing agent

#### **10.6 Hazardous decomposition products**

No hazardous decomposition products known.



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**SECTION 11: Toxicological information**

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

**Acute oral toxicity**

Product
ATE-mix, oral, > 2000 mg/kg
Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
LD50, oral, Rat, 3230 mg/kg
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
LD50, oral, Rat, 10 000 mg/kg
Reaction mass of ethylbenzene and xylene
LD50, oral, Rat, 3523 - 4000 mg/kg
n-Butyl acetate, CAS: 123-86-4
LD50, oral, Rat, 10760 mg/kg (OECD 423)
Titanium dioxide, CAS: 13463-67-7
LD50, oral, Rat, > 10000 mg/kg

**Acute dermal toxicity**

Product
ATE-mix, dermal, > 2000 mg/kg
Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
LD50, dermal, Rat, 3170 mg/kg
Reaction mass of ethylbenzene and xylene
LD50, dermal, Rabbit, 12126 mg/kg
n-Butyl acetate, CAS: 123-86-4
LD50, dermal, Rabbit, >14112 mg/kg (OECD 402)

**Acute inhalational toxicity**

Product
ATE-mix, inhalation (vapour ), > 20 mg/l 4h
Substance
Reaction mass of ethylbenzene and xylene
LC50, inhalation (vapour ), Rat, 6350 - 6700 ppm 4h
n-Butyl acetate, CAS: 123-86-4
LC50, inhalative, Rat, 23,4 mg/l (4h) (OECD 403)
Titanium dioxide, CAS: 13463-67-7
LD50, inhalative, Rat, > 6,8 mg/l (4 h)

**Serious eye damage/irritation**

Irritant  
Based on the available information, the classification criteria are fulfilled.  
Toxicological data of complete product are not available.  
Calculation method



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Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
Eye, non-irritating
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
Eye, non-irritating
Reaction mass of ethylbenzene and xylene
Eye, irritant
n-Butyl acetate, CAS: 123-86-4
Eye, Rabbit, OECD 405, non-irritating
Titanium dioxide, CAS: 13463-67-7
Eye, non-irritating

**Skin corrosion/irritation**

Irritant  
Based on the available information, the classification criteria are fulfilled.  
Toxicological data of complete product are not available.  
Calculation method

Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
dermal, non-irritating
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
dermal, non-irritating
Reaction mass of ethylbenzene and xylene
dermal, irritant
n-Butyl acetate, CAS: 123-86-4
dermal, Rabbit, OECD 404, non-irritating
Titanium dioxide, CAS: 13463-67-7
dermal, non-irritating

**Respiratory or skin sensitisation**

May cause an allergic skin reaction.  
Based on the available information, the classification criteria are fulfilled.  
Toxicological data of complete product are not available.  
Calculation method

Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
dermal, sensitising
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
dermal, sensitising
Reaction mass of ethylbenzene and xylene
dermal, non-sensitizing
n-Butyl acetate, CAS: 123-86-4
dermal, Guinea pig, In vivo study, non-sensitizing
Titanium dioxide, CAS: 13463-67-7
dermal, non-sensitizing
inhalative, non-sensitizing

**Specific target organ toxicity — single exposure**

Based on the available information, the classification criteria are not fulfilled.  
Toxicological data of complete product are not available.



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Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
inhalative, non-irritating
Reaction mass of ethylbenzene and xylene
inhalative, irritant
n-Butyl acetate, CAS: 123-86-4
No information available.
Titanium dioxide, CAS: 13463-67-7
inhalative, non-irritating

**Specific target organ toxicity — repeated exposure** — May cause damage to organs through prolonged or repeated exposure. Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Calculation method

Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
NOAEL, oral, Rat, 36 mg/kg bw/day (subchronic), The effects observed are not sufficient for classification.
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
NOAEL, oral, Rat, 1000 mg/kg bw/day (subchronic), no adverse effect observed
Reaction mass of ethylbenzene and xylene
NOAEL, oral, Rat, 250 mg/kg bw/day (chronic), adverse effect observed
NOAEC, inhalative, Rat, 3515 mg/m³ (subchronic), adverse effect observed
n-Butyl acetate, CAS: 123-86-4
NOAEL, oral, Rat, 196 mg/kg bw/day, In vivo study, negativ
NOAEC, inhalative, Rat, 2400 mg/m³, In vivo study, negativ

**Mutagenicity** — Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
in vitro, no adverse effect observed
in vivo, no adverse effect observed
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
in vitro, no adverse effect observed
Reaction mass of ethylbenzene and xylene
in vivo, no adverse effect observed
n-Butyl acetate, CAS: 123-86-4
Ames-test, negativ
Titanium dioxide, CAS: 13463-67-7
in vitro, no adverse effect observed
in vivo, no adverse effect observed

**Reproduction toxicity** — Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

- Fertility

Substance
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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
NOAEL, oral, Rat, 109 mg/kg bw/day (subchronic), adverse effect observed
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
NOAEL, oral, Rat, 1000 mg/kg bw/day (subacute), no adverse effect observed
n-Butyl acetate, CAS: 123-86-4
NOAEC, inhalative, Rat, 9640 mg/m <sup>3</sup> , OECD 416, negativ
Titanium dioxide, CAS: 13463-67-7
NOAEL, oral, Rat, 1000 mg/kg bw/day (subchronic), no adverse effect observed

**- Development**

Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
NOAEL, oral, Rat, 109 mg/kg bw/day (subchronic), adverse effect observed
Fatty acids, C18-unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine, CAS: 162627-17-0
NOAEL, oral, Rat, 1000 mg/kg bw/day (subacute), no adverse effect observed
Reaction mass of ethylbenzene and xylene
inhalative, Rat, 4698 mg/m <sup>3</sup> , no adverse effect observed
n-Butyl acetate, CAS: 123-86-4
LOAEC, inhalation (vapour ), Rat, 7230 mg/m <sup>3</sup> , OECD 414, adverse effect observed
Titanium dioxide, CAS: 13463-67-7
NOAEL, oral, Rat, 1000 mg/kg bw/day (subchronic), no adverse effect observed

**Carcinogenicity**

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Substance
Reaction mass of ethylbenzene and xylene
NOAEL, oral, Rat, 500 mg/kg bw/day (chronic), no adverse effect observed

**Aspiration hazard**

Based on the available information, the classification criteria are not fulfilled.

**General remarks**

none

**11.2 Information on other hazards**

**11.2.1 Endocrine disrupting properties**

Contains no ingredients with endocrine-disrupting properties.

**11.2.2 Other information**

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## SECTION 12: Ecological information

### 12.1 Toxicity

Substance
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
LC50, (96h), <i>Lepomis macrochirus</i> , 0,97 mg/l OECD 203
EC50, (24h), <i>Daphnia magna</i> , 20 mg/l OECD 202
NOEC, (21d), <i>Daphnia magna</i> , 1 mg/l OECD 211
Reaction mass of ethylbenzene and xylene
LC50, (96h), <i>Oncorhynchus mykiss</i> , 2,6 mg/l OECD 203
LC50, (24h), <i>Daphnia magna</i> , 1 mg/l OECD 202
EC50, (72h), <i>Selenastrum capricornutum</i> , 2,2 mg/l OECD 201
NOEC, (21d), Invertebrates, 1,57 mg/l
n-Butyl acetate, CAS: 123-86-4
LC50, (96h), <i>Pimephales promelas</i> , 18 mg/l (OECD 203)
EC50, (48h), <i>Daphnia magna</i> , 44 mg/l
EC50, (72h), <i>Desmodesmus subspicatus</i> , 647,7 mg/l
IC50, Bacteria, 356 mg/l (40 h)
NOEC, <i>Desmodesmus subspicatus</i> , 200 mg/l
Titanium dioxide, CAS: 13463-67-7
LC0, (48h), <i>Leuciscus idus</i> , > 1000 mg/l

### 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	not determined
<b>Behaviour in sewage plant</b>	not determined
<b>Biological degradability</b>	not determined

### 12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

### 12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

### 12.7 Other adverse effects

None known.

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**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

**Product**

Dispose of as hazardous waste.  
Disposal in an incineration plant in accordance with the regulations of the local authorities.

**Waste no. (recommended)** 080111\*

**Contaminated packaging**

Untaminated packaging may be taken for recycling.  
Packaging that cannot be cleaned should be disposed of as for product.

**Waste no. (recommended)** 150110\* packaging containing residues of or contaminated by hazardous substances

**SECTION 14: Transport information**

**14.1 UN number or ID number**

**Transport by land according to ADR/RID** 1263

**Inland navigation (ADN)** 1263

**Marine transport in accordance with IMDG** 1263

**Air transport in accordance with IATA** 1263

**14.2 UN proper shipping name**

**Transport by land according to ADR/RID** Paint (No dangerous goods, according ADR 2.2.3.1.5 to max. 450 l)

- Label 

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 3 (D/E)

**Inland navigation (ADN)** Paint (No dangerous goods, according ADR 2.2.3.1.5 to max. 450 l)

- Label 

**Marine transport in accordance with IMDG** Paint (No dangerous goods, according IMDG 2.3.2.5 to max. 30 l (see 5.4.1.5.10) - "transport in compliance with 2.3.2.5 of the IMDG Code")

- EMS F-E, S-E

- Label 

**Air transport in accordance with IATA** Paint

- Label 

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#### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID 3

Inland navigation (ADN) 3

Marine transport in accordance with IMDG 3

Air transport in accordance with IATA 3

#### 14.4 Packing group

Transport by land according to ADR/RID III

Inland navigation (ADN) III

Marine transport in accordance with IMDG III

Air transport in accordance with IATA III

#### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

not applicable



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## SECTION 15: Regulatory information

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

<b>EEC-REGULATIONS</b>	2008/98/EG (2000/532/EC ); 2010/75/EU; 2004/42/EG; (EG) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EWG ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148; (EU) 2019/1021, (EU) 2023/707
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex I (REACH)	The product is not subject to Annex I restrictions.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq$ 0.1% that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains $\geq$ 0.1% of substances with the following restrictions. 40, 75  According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is subject to the following restrictions. 3
<b>TRANSPORT-REGULATIONS</b>	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2024)
<b>NATIONAL REGULATIONS (DE):</b>	Hazardous Substances Ordinance - GefStoffV 21.07.2021; Detergent and Cleaning Agents Act - WRMG; Federal Water Act - WHG; Technical Rule for Hazardous Substances - TRGS: 200, 220, 615, 900, 905.
- Water hazard class	2, conf. AwSV, 18.04.2017
- Decree for case of interference, observe limits	yes
- Class. according to TA-Luft	5.2.5.
<b>Storage class (TRGS 510)</b>	Storage class 3 (TRGS 510)
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	< 500 g/l
- Other regulations	Principles of industrial medicine Occupational Safety Regulations G29: Toluene, Xylene. DGUV Information 213-079: Tätigkeiten mit Gefahrstoffen - Informationen für Beschäftigte. DGUV Information 213-072: Lösemittel (Merkblatt M 017 der Reihe "Gefahrstoffe") TRGS 401: Gefährdung durch Hautkontakt. - Ermittlung, Beurteilung, Maßnahmen. TRGS 510: Storage of hazardous substances in non-stationary containers

### 15.2 Chemical safety assessment

not applicable

## SECTION 16: Other information

### 16.1 Hazard statements (SECTION 3)

H373 May cause damage to organs through prolonged or repeated exposure through inhalation.  
H335 May cause respiratory irritation.  
H319 Causes serious eye irritation.  
H315 Causes skin irritation.  
H304 May be fatal if swallowed and enters airways.  
H312+H332 Harmful in contact with skin or if inhaled.  
H410 Very toxic to aquatic life with long lasting effects.  
H400 Very toxic to aquatic life.  
H361f Suspected of damaging fertility.  
H317 May cause an allergic skin reaction.  
EUH066 Repeated exposure may cause skin dryness or cracking.  
H336 May cause drowsiness or dizziness.  
H226 Flammable liquid and vapour.

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## 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ATE = acute toxicity estimate  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
EL50 = Median effective loading  
ELINCS = European List of Notified Chemical Substances  
EmS = Emergency Schedules  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
IVIS = In vitro irritation score  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
LC0 = lethal concentration, 0%  
LOAEL = lowest-observed-adverse-effect level  
LL50 = Median lethal loading  
LQ = Limited Quantities  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
NOAEL = No Observed Adverse Effect Level  
NOEC = No Observed Effect Concentration  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
STP = Sewage Treatment Plant  
TLV@TWA = Threshold limit value – time-weighted average  
TLV@STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

## 16.3 Other information

### Classification procedure

Flam. Liq. 3: H226 Flammable liquid and vapour. (On basis of test data)  
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)  
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)  
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Calculation method)  
Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)  
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

### Modified position

none

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