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



LOCTITE PC 7255 GN Part B

SDS No. : 431278
V007.0
Revision: 09.10.2023
printing date: 09.10.2023
Replaces version from: 08.08.2022

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

**1.1. Product identifier**
LOCTITE PC 7255 GN Part B

**1.2. Relevant identified uses of the substance or mixture and uses advised against**
Intended use:
Epoxy Hardener

**1.3. Details of the supplier of the safety data sheet**
Henkel AG & Co. KGaA
Henkelstr. 67
40589 Düsseldorf

Germany

Phone: +49 211 797 0

SDSinfo.Adhesive@henkel.com
For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

**1.4. Emergency telephone number**
The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

## SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture**

**Classification (CLP):**

| | |
|---|---|
| Acute toxicity | Category 4 |
| H302 Harmful if swallowed. | |
| Route of Exposure: Oral | |
| Skin corrosion | Sub-category 1B |
| H314 Causes severe skin burns and eye damage. | |
| Serious eye damage | Category 1 |
| H318 Causes serious eye damage. | |
| Skin sensitizer | Category 1 |
| H317 May cause an allergic skin reaction. | |
| Specific target organ toxicity - repeated exposure | Category 2 |
| H373 May cause damage to organs through prolonged or repeated exposure. | |
| Chronic hazards to the aquatic environment | Category 2 |
| H411 Toxic to aquatic life with long lasting effects. | |

**2.2. Label elements**

**Label elements (CLP):**

| | |
|---|---|
| **Hazard pictogram:** |  |
| **Contains** | 4,4'-Methylenebis(cyclohexylamine)<br><br>Formaldehyde, polymer with benzenamine, hydrogenated m-Phenylenebis(methylamine)<br><br>N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br><br>2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br><br>1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]-, homopolymer |
| **Signal word:** | Danger |
| **Hazard statement:** | H302 Harmful if swallowed.<br>H314 Causes severe skin burns and eye damage.<br>H317 May cause an allergic skin reaction.<br>H373 May cause damage to organs through prolonged or repeated exposure.<br>H411 Toxic to aquatic life with long lasting effects. |
| **Precautionary statement: Prevention** | P280 Wear protective gloves/protective clothing/eye protection/face protection.<br>P273 Avoid release to the environment. |
| **Precautionary statement: Response** | P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].<br>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P310 Immediately call a POISON CENTER or doctor. |

### 2.3. Other hazards

None if used properly.

**Following substances are present in a concentration ≥ the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):**

| | |
|---|---|
| 4-tert-butylphenol<br>98-54-4 | ED |

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

| Hazardous components<br>CAS-No.<br>EC Number<br>REACH-Reg No. | Concentration | Classification | Specific Conc. Limits, M-factors and ATEs | Add. Information |
|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3<br>217-168-8<br>01-2119541673-38<br>01-2119979542-27 | 25- 50 % | Acute Tox. 4, Oral, H302<br>Skin Corr. 1B, H314<br>Skin Sens. 1, H317<br>STOT RE 2, Oral, H373<br>Eye Dam. 1, H318 | | |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2<br>603-894-6<br>01-2119983522-33 | 5- 10 % | Acute Tox. 3, Oral, H301<br>Skin Corr. 1C, H314<br>STOT RE 2, H373<br>Aquatic Chronic 3, H412<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317 | dermal:ATE = > 2.000 mg/kg | |
| benzyl alcohol<br>100-51-6<br>202-859-9<br>01-2119492630-38 | 5- 10 % | Acute Tox. 4, Oral, H302<br>Acute Tox. 4, Inhalation, H332<br>Eye Irrit. 2, H319 | dermal:ATE = 2.500 mg/kg<br>inhalation:ATE = 4,17 mg/l;dust/mist | |
| m-Phenylenebis(methylamine)<br>1477-55-0<br>216-032-5<br>01-2119480150-50 | 1- < 3 % | Acute Tox. 4, Oral, H302<br>Skin Corr. 1B, H314<br>Skin Sens. 1B, H317<br>Acute Tox. 4, Inhalation, H332<br>Aquatic Chronic 3, H412<br>Eye Dam. 1, H318 | | |
| 4-tert-butylphenol<br>98-54-4<br>202-679-0<br>01-2119489419-21 | 1- < 3 % | Eye Dam. 1, H318<br>Skin Irrit. 2, H315<br>Repr. 2, H361f<br>Aquatic Chronic 1, H410 | M chronic = 1 | SVHC<br>ED |
| N-(3-(Trimethoxysilyl)propyl)ethylene diamine<br>1760-24-3<br>217-164-6<br>01-2119970215-39 | 0,1- < 1 % | Skin Sens. 1A, H317<br>Eye Dam. 1, H318<br>Acute Tox. 4, Inhalation, H332<br>STOT RE 2, Inhalation, H373 | inhalation:ATE = 1,49 mg/l;dust/mist | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8<br>247-063-2<br>01-2119560598-25 | 0,1- < 1 % | Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Skin Corr. 1A, H314<br>Acute Tox. 4, Oral, H302 | | |
| Salicylic acid<br>69-72-7<br>200-712-3<br>01-2119486984-17 | 0,1- < 1 % | Repr. 2, H361d<br>Acute Tox. 4, Oral, H302<br>Eye Dam. 1, H318 | | |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5<br>229-962-1<br>01-2119497829-12 | 0,1- < 1 % | Acute Tox. 2, Inhalation, H330<br>Acute Tox. 3, Dermal, H311<br>Acute Tox. 4, Oral, H302<br>STOT RE 2, H373<br>Skin Corr. 1A, H314<br>Aquatic Chronic 2, H411 | dermal:ATE = 201 mg/kg<br>oral:ATE = 320 mg/kg | |
| 1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]-, homopolymer<br>29226-47-9 | 0,01- < 0,1 % | Skin Sens. 1A, H317<br>Eye Dam. 1, H318<br>Acute Tox. 4, Inhalation, H332<br>STOT RE 2, Inhalation, H373 | inhalation:ATE = 1,49 mg/l;dust/mist | |

**If no ATE values are displayed, please refer to LD/LC50 values in Section 11.**
**For full text of the H - statements and other abbreviations see section 16 "Other information".**

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

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

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

**4.2. Most important symptoms and effects, both acute and delayed**
Causes burns.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

SKIN: Rash, Urticaria.

**4.3. Indication of any immediate medical attention and special treatment needed**
See section: Description of first aid measures

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**
**Suitable extinguishing media:**
water, carbon dioxide, foam, powder

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

**5.2. Special hazards arising from the substance or mixture**
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

**5.3. Advice for firefighters**
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**Additional information:**
In case of fire, keep containers cool with water spray.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Avoid contact with skin and eyes.
Wear protective equipment.
Ensure adequate ventilation.
Keep away from sources of ignition.

**6.2. Environmental precautions**
Do not empty into drains / surface water / ground water.

**6.3. Methods and material for containment and cleaning up**
Dispose of contaminated material as waste according to Section 13.
For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.

**6.4. Reference to other sections**
See advice in section 8

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Avoid skin and eye contact.
See advice in section 8

Hygiene measures:

Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
Good industrial hygiene practices should be observed.

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

Store in sealed original container.
Store in a cool, well-ventilated place.
Refer to Technical Data Sheet

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

Epoxy Hardener

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Occupational Exposure Limits**

Valid for
Germany

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| Silicon carbide<br>409-21-2 | | | Short Term Exposure Classification: | Category II: substances with a resorptive effect. | TRGS 900 |
| Silicon carbide<br>409-21-2 | | 1,25 | Exposure limit(s): | If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Silicon carbide<br>409-21-2 | | 10 | Exposure limit(s): | 2<br>If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Benzyl alcohol<br>100-51-6 | | | Short Term Exposure Classification: | Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages. | TRGS 900 |
| Benzyl alcohol<br>100-51-6 | 5 | 22 | Exposure limit(s): | 2<br>If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Benzyl alcohol<br>100-51-6 | | | Skin designation: | Can be absorbed through the skin. | TRGS 900 |
| Natural compound of quartz and kaolinite<br>1020665-14-8 | | 4 | Exposure limit(s): | If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Kaolinite<br>1318-74-7<br>[ALLGEMEINER STAUBGRENZWERT] | | | Explanations and basis for exposure limits in the workplace air - Number: | | TRGS 901 |
| 4-tert-Butylphenol<br>98-54-4 | 0,08 | 0,5 | Exposure limit(s): | 2 | TRGS 900 |
| 4-tert-Butylphenol<br>98-54-4 | | | Skin designation: | Can be absorbed through the skin. | TRGS 900 |
| 4-tert-Butylphenol<br>98-54-4 | | | Short Term Exposure Classification: | Category II: substances with a resorptive effect. | TRGS 900 |
| Silicon dioxide<br>112926-00-8 | | 10 | Exposure limit(s): | 2<br>If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Silicon dioxide<br>112926-00-8 | | | Short Term Exposure Classification: | Category II: substances with a resorptive effect. | TRGS 900 |
| Silicon dioxide<br>112926-00-8 | | 1,25 | Exposure limit(s): | If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Silicon dioxide<br>112926-00-8 | | 4 | Exposure limit(s): | If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |

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

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | mg/l | ppm | mg/kg | others | |
| 4,4'-Methylenebis(cyclohexylamine) 1761-71-3 | aqua (intermittent releases) | | 0,08 mg/l | | | | |
| 4,4'-Methylenebis(cyclohexylamine) 1761-71-3 | sediment (freshwater) | | | | 136,6 mg/kg | | |
| 4,4'-Methylenebis(cyclohexylamine) 1761-71-3 | aqua (marine water) | | 0,008 mg/l | | | | |
| 4,4'-Methylenebis(cyclohexylamine) 1761-71-3 | sediment (marine water) | | | | 13,7 mg/kg | | |
| 4,4'-Methylenebis(cyclohexylamine) 1761-71-3 | sewage treatment plant (STP) | | 3,2 mg/l | | | | |
| 4,4'-Methylenebis(cyclohexylamine) 1761-71-3 | Soil | | | | 27,3 mg/kg | | |
| 4,4'-Methylenebis(cyclohexylamine) 1761-71-3 | aqua (freshwater) | | 0,08 mg/l | | | | |
| Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2 | aqua (freshwater) | | 0,015 mg/l | | | | |
| Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2 | aqua (marine water) | | 0,002 mg/l | | | | |
| Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2 | aqua (intermittent releases) | | 0,15 mg/l | | | | |
| Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2 | sewage treatment plant (STP) | | 1,9 mg/l | | | | |
| Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2 | sediment (freshwater) | | | | 15 mg/kg | | |
| Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2 | sediment (marine water) | | | | 1,5 mg/kg | | |
| Formaldehyde, polymer with benzenamine, hydrogenated 135108-88-2 | Soil | | | | 1,8 mg/kg | | |
| Benzyl alcohol 100-51-6 | Soil | | | | 0,456 mg/kg | | |
| Benzyl alcohol 100-51-6 | sewage treatment plant (STP) | | 39 mg/l | | | | |
| Benzyl alcohol 100-51-6 | sediment (freshwater) | | | | 5,27 mg/kg | | |
| Benzyl alcohol 100-51-6 | sediment (marine water) | | | | 0,527 mg/kg | | |
| Benzyl alcohol 100-51-6 | aqua (marine water) | | 0,1 mg/l | | | | |
| Benzyl alcohol 100-51-6 | aqua (intermittent releases) | | 2,3 mg/l | | | | |
| Benzyl alcohol 100-51-6 | aqua (freshwater) | | 1 mg/l | | | | |
| Benzyl alcohol 100-51-6 | Predator | | | | | | no potential for bioaccumulation |
| m-Phenylenebis(methylamine) 1477-55-0 | aqua (freshwater) | | 0,094 mg/l | | | | |
| m-Phenylenebis(methylamine) 1477-55-0 | aqua (marine water) | | 0,009 mg/l | | | | |
| m-Phenylenebis(methylamine) 1477-55-0 | Freshwater - intermittent | | 0,152 mg/l | | | | |
| m-Phenylenebis(methylamine) 1477-55-0 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| m-Phenylenebis(methylamine) 1477-55-0 | sediment (freshwater) | | | | 12,4 mg/kg | | |
| m-Phenylenebis(methylamine) 1477-55-0 | sediment (marine water) | | | | 1,24 mg/kg | | |
| m-Phenylenebis(methylamine) | Soil | | | | 2,44 mg/kg | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1477-55-0 | | | | | | | |
| 4-tert-butylphenol 98-54-4 | aqua (marine water) | | 0,001 mg/l | | | | |
| 4-tert-butylphenol 98-54-4 | aqua (freshwater) | | 0,01 mg/l | | | | |
| 4-tert-butylphenol 98-54-4 | Freshwater - intermittent | | 0,048 mg/l | | | | |
| 4-tert-butylphenol 98-54-4 | sediment (marine water) | | | | 0,027 mg/kg | | |
| 4-tert-butylphenol 98-54-4 | sediment (freshwater) | | | | 0,27 mg/kg | | |
| 4-tert-butylphenol 98-54-4 | sewage treatment plant (STP) | | 1,5 mg/l | | | | |
| 4-tert-butylphenol 98-54-4 | Soil | | | | 0,25 mg/kg | | |
| 4-tert-butylphenol 98-54-4 | oral | | | | 46,67 mg/kg | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3 | aqua (freshwater) | | 0,05 mg/l | | | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3 | aqua (marine water) | | 0,005 mg/l | | | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3 | Freshwater - intermittent | | 0,072 mg/l | | | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3 | sediment (freshwater) | | | | 0,181 mg/kg | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3 | sediment (marine water) | | | | 0,018 mg/kg | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3 | Soil | | | | 0,007 mg/kg | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine 1760-24-3 | sewage treatment plant (STP) | | 20 mg/l | | | | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | aqua (freshwater) | | 0,102 mg/l | | | | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | aqua (marine water) | | 0,01 mg/l | | | | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | sediment (freshwater) | | | | 0,622 mg/kg | | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | sediment (marine water) | | | | 0,062 mg/kg | | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | Sewage treatment plant | | 72 mg/l | | | | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | Soil | | | | 10 mg/kg | | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | Freshwater - intermittent | | 0,315 mg/l | | | | |
| Salicylic acid 69-72-7 | aqua (freshwater) | | 0,2 mg/l | | | | |
| Salicylic acid 69-72-7 | aqua (marine water) | | 0,02 mg/l | | | | |
| Salicylic acid 69-72-7 | aqua (intermittent releases) | | 1 mg/l | | | | |
| Salicylic acid 69-72-7 | sewage treatment plant (STP) | | 162 mg/l | | | | |
| Salicylic acid 69-72-7 | sediment (freshwater) | | | | 1,42 mg/kg | | |
| Salicylic acid 69-72-7 | sediment (marine water) | | | | 0,142 mg/kg | | |
| Salicylic acid 69-72-7 | Soil | | | | 0,166 mg/kg | | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine) 6864-37-5 | aqua (freshwater) | | 0,1 mg/l | | | | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine) 6864-37-5 | aqua (marine water) | | 0,01 mg/l | | | | |
| 2,2'-Dimethyl-4,4'- | aqua | | 0,046 mg/l | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| methylenebis(cyclohexylamine)<br>6864-37-5 | (intermittent releases) | | | | | | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | sewage treatment plant (STP) | | 1,6 mg/l | | | | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | sediment (freshwater) | | | | 4,34 mg/kg | | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | sediment (marine water) | | | | 0,434 mg/kg | | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | Soil | | | | 4,56 mg/kg | | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | oral | | | | 0,556 mg/kg | | |

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

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | Workers | inhalation | Long term exposure - systemic effects | | 0,13 mg/m3 | |
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | Workers | dermal | Long term exposure - systemic effects | | 0,053 mg/kg | |
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | Workers | inhalation | Long term exposure - local effects | | | |
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | Workers | inhalation | Acute/short term exposure - local effects | | | |
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | Workers | dermal | Long term exposure - local effects | | | |
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | Workers | dermal | Long term exposure - local effects | | | |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | Workers | inhalation | Long term exposure - systemic effects | | 0,2 mg/m3 | |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | Workers | inhalation | Acute/short term exposure - systemic effects | | 2 mg/m3 | |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | Workers | dermal | Long term exposure - systemic effects | | 2 mg/kg | |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | Workers | dermal | Acute/short term exposure - systemic effects | | 6 mg/kg | |
| Benzyl alcohol<br>100-51-6 | General population | oral | Acute/short term exposure - systemic effects | | 20 mg/kg | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | General population | oral | Long term exposure - systemic effects | | 4 mg/kg | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | Workers | inhalation | Acute/short term exposure - systemic effects | | 110 mg/m3 | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | Workers | inhalation | Long term exposure - systemic effects | | 22 mg/m3 | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | General population | inhalation | Acute/short term exposure - systemic effects | | 27 mg/m3 | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | General population | inhalation | Long term exposure - systemic effects | | 5,4 mg/m3 | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | Workers | dermal | Acute/short term exposure - systemic effects | | 40 mg/kg | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | Workers | dermal | Long term exposure - systemic effects | | 8 mg/kg | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | General population | dermal | Acute/short term exposure - systemic effects | | 20 mg/kg | no potential for bioaccumulation |
| Benzyl alcohol<br>100-51-6 | General population | dermal | Long term exposure - systemic effects | | 4 mg/kg | no potential for bioaccumulation |
| m-Phenylenebis(methylamine)<br>1477-55-0 | Workers | dermal | Long term exposure - systemic effects | | 0,33 mg/kg | |
| m-Phenylenebis(methylamine)<br>1477-55-0 | Workers | inhalation | Long term exposure - systemic effects | | 1,2 mg/m3 | |
| m-Phenylenebis(methylamine)<br>1477-55-0 | Workers | inhalation | Long term exposure - local effects | | 0,2 mg/m3 | |
| 4-tert-butylphenol<br>98-54-4 | General population | dermal | Long term exposure - | | 0,026 mg/kg | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | systemic effects | | | |
| 4-tert-butylphenol<br>98-54-4 | General population | inhalation | Long term exposure - systemic effects | | 0,09 mg/m3 | |
| 4-tert-butylphenol<br>98-54-4 | General population | oral | Long term exposure - systemic effects | | 0,026 mg/kg | |
| 4-tert-butylphenol<br>98-54-4 | Workers | dermal | Long term exposure - systemic effects | | 0,071 mg/kg | |
| 4-tert-butylphenol<br>98-54-4 | Workers | inhalation | Long term exposure - systemic effects | | 0,5 mg/m3 | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | Workers | inhalation | Long term exposure - systemic effects | | 130 mg/m3 | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | Workers | inhalation | Acute/short term exposure - local effects | | 5,36 mg/m3 | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | General population | inhalation | Long term exposure - systemic effects | | 26 mg/m3 | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | General population | oral | Long term exposure - systemic effects | | 4 mg/kg | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | General population | inhalation | Acute/short term exposure - local effects | | 4 mg/m3 | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | Workers | inhalation | Long term exposure - local effects | | 0,6 mg/m3 | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | General population | inhalation | Long term exposure - local effects | | 0,1 mg/m3 | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | General population | inhalation | Acute/short term exposure - systemic effects | | 26400 mg/m3 | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | Workers | dermal | Long term exposure - local effects | | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | Workers | dermal | Acute/short term exposure - local effects | | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | General population | dermal | Long term exposure - local effects | | | |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | General population | dermal | Acute/short term exposure - local effects | | | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | General population | oral | Long term exposure - systemic effects | | 0,05 mg/kg | |
| Salicylic acid<br>69-72-7 | Workers | dermal | Long term exposure - systemic effects | | 2,3 mg/kg | |
| Salicylic acid<br>69-72-7 | Workers | inhalation | Long term exposure - systemic effects | | 5 mg/m3 | |
| Salicylic acid<br>69-72-7 | General population | oral | Acute/short term exposure - systemic effects | | 4 mg/kg | |
| Salicylic acid<br>69-72-7 | General population | dermal | Long term exposure - systemic effects | | 1 mg/kg | |
| Salicylic acid<br>69-72-7 | General population | inhalation | Long term exposure - systemic effects | | 4 mg/m3 | |
| Salicylic acid<br>69-72-7 | General population | oral | Long term exposure - systemic effects | | 1 mg/kg | |
| Salicylic acid<br>69-72-7 | Workers | inhalation | Long term exposure - local effects | | 5 mg/m3 | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | Workers | inhalation | Long term exposure - systemic effects | | 0,6 mg/m3 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine) 6864-37-5 | Workers | inhalation | Long term exposure - local effects | | 0,96 mg/m3 | |
| 2,2'-Dimethyl-4,4'-methylenebis(cyclohexylamine) 6864-37-5 | Workers | dermal | Long term exposure - systemic effects | | 0,06 mg/kg | |

**Biological Exposure Indices:**

| Ingredient [Regulated substance] | Parameters | Biological specimen | Sampling time | Conc. | Basis of biol. exposure index | Remark | Additional Information |
|---|---|---|---|---|---|---|---|
| Kaolinite 1318-74-7 | Aluminum | Urine | Sampling time: End of shift. | 200 µg/l | DE BAT | | |
| 4-tert-Butylphenol 98-54-4 | PTBP (with hydrolysis) | Urine | Sampling time: End of shift. | 2 mg/l | DE BGW | | |

**8.2. Exposure controls:**

Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Filter type: A (EN 14387)

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:
The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.
Personal protective equipment should conform to the relevant EN standard.

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

| | |
|---|---|
| Delivery form | liquid |
| Colour | blue |
| Odor | ammoniacal |
| Physical state | liquid |
| Melting point | Not applicable, Product is a liquid |
| Solidification temperature | < 5 °C (< 41 °F) |
| Initial boiling point | > 180 °C (> 356 °F)no method / method unknown |
| Flammability | The product is not flammable. |
| Explosive limits | Not applicable, The product is not flammable. |

| | |
|---|---|
| Flash point | > 100 °C (> 212 °F) |
| Auto-ignition temperature | > 140 °C (> 284 °F) |
| Decomposition temperature | Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use |
| pH<br>(25 °C (77 °F); Conc.: 100 g/l; Solvent: Water) | 11,3 |
| Viscosity (kinematic)<br>(25 °C (77 °F); ) | 880 mm2/s |
| Solubility (qualitative)<br>(20 °C (68 °F); Solvent: Water) | Insoluble |
| Partition coefficient: n-octanol/water | Not applicable<br>Mixture |
| Vapour pressure<br>(50 °C (122 °F)) | < 700 mbar;no method / method unknown |
| Vapour pressure<br>(21 °C (69.8 °F)) | < 13,3 hPa |
| Density<br>(20 °C (68 °F)) | 1,47 g/cm3 None |
| Relative vapour density:<br>(20 °C) | > 1 |
| Particle characteristics | Not applicable<br>Product is a liquid |

**9.2. Other information**

Other information not applicable for this product

## SECTION 10: Stability and reactivity

**10.1. Reactivity**
Reacts with strong oxidants.
Acids.
Reaction with strong acids.
Strong bases.

**10.2. Chemical stability**
Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**
See section reactivity

**10.4. Conditions to avoid**
Stable under normal conditions of storage and use.

**10.5. Incompatible materials**
See section reactivity.

**10.6. Hazardous decomposition products**
carbon oxides.
Rapid polymerisation may generate excessive heat and pressure.
May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.

## SECTION 11: Toxicological information

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

**Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | LD50 | 380 mg/kg | rat | EPA OPP 81-1 (Acute Oral Toxicity) |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | LD50 | 300 mg/kg | rat | OECD Guideline 423 (Acute Oral toxicity) |
| benzyl alcohol<br>100-51-6 | LD50 | 1.620 mg/kg | rat | not specified |
| m-Phenylenebis(methylamine)<br>1477-55-0 | LD50 | 980 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| 4-tert-butylphenol<br>98-54-4 | LD50 | 4.000 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | LD50 | 2.295 mg/kg | rat | EPA OPPTS 870.1100 (Acute Oral Toxicity) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | LD50 | 910 mg/kg | rat | not specified |
| Salicylic acid<br>69-72-7 | LD50 | 891 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | LD50 | 320 - 460 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | Acute toxicity estimate (ATE) | 320 mg/kg | | Expert judgement |
| 1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]-, homopolymer<br>29226-47-9 | LD50 | 2.295 mg/kg | rat | EPA OPPTS 870.1100 (Acute Oral Toxicity) |

**Acute dermal toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | LD50 | 2.110 mg/kg | rabbit | not specified |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | Acute toxicity estimate (ATE) | > 2.000 mg/kg | rabbit | Expert judgement |
| benzyl alcohol<br>100-51-6 | Acute toxicity estimate (ATE) | 2.500 mg/kg | | Expert judgement |
| m-Phenylenebis(methylamine)<br>1477-55-0 | LD50 | > 3.100 mg/kg | rat | not specified |
| 4-tert-butylphenol<br>98-54-4 | LD50 | > 16.000 mg/kg | rabbit | OECD Guideline 402 (Acute Dermal Toxicity) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | LD50 | > 2.000 mg/kg | rat | EPA OPPTS 870.1200 (Acute Dermal Toxicity) |
| Salicylic acid<br>69-72-7 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | LD50 | > 200 - < 400 mg/kg | rabbit | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | Acute toxicity estimate (ATE) | 201 mg/kg | | Expert judgement |
| 1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]-, homopolymer<br>29226-47-9 | LD50 | > 2.000 mg/kg | rat | EPA OPPTS 870.1200 (Acute Dermal Toxicity) |

**Acute inhalative toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Test atmosphere | Exposure time | Species | Method |
|---|---|---|---|---|---|---|
| benzyl alcohol<br>100-51-6 | Acute toxicity estimate (ATE) | 4,17 mg/l | dust/mist | | | Expert judgement |
| benzyl alcohol<br>100-51-6 | LC50 | > 4,178 mg/l | dust/mist | 4 h | rat | OECD Guideline 403 (Acute Inhalation Toxicity) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | LC50 | 1,34 mg/l | dust/mist | 4 h | rat | OECD Guideline 403 (Acute Inhalation Toxicity) |
| 4-tert-butylphenol<br>98-54-4 | LC50 | > 5,6 mg/l | dust/mist | 4 h | rat | not specified |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | LC50 | 1,49 - 2,44 mg/l | dust/mist | 4 h | rat | EPA OPPTS 870.1300 (Acute inhalation toxicity) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | Acute toxicity estimate (ATE) | 1,49 mg/l | dust/mist | | | Expert judgement |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | LC50 | 0,42 mg/l | dust/mist | 4 h | rat | equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) |
| 1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]-, homopolymer<br>29226-47-9 | Acute toxicity estimate (ATE) | 1,49 mg/l | dust/mist | | | Expert judgement |

**Skin corrosion/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | corrosive | 2,75 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | Category 1C (corrosive) | | Corrositex Biobarrier Membrane (reconstituted collagen matrix) | OECD Guideline 435 (In Vitro Membrane Barrier Test Method for Skin Corrosion) |
| benzyl alcohol<br>100-51-6 | not irritating | 4 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 4-tert-butylphenol<br>98-54-4 | irritating | 5 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | mildly irritating | 4 h | rabbit | EPA OPPTS 870.2500 (Acute Dermal Irritation) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | corrosive | 3 min | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Salicylic acid<br>69-72-7 | slightly irritating | | rabbit | not specified |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | corrosive | 3 min | rabbit | equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

**Serious eye damage/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | Category 1 (irreversible effects on the eye) | | rabbit | not specified |
| benzyl alcohol<br>100-51-6 | irritating | 24 h | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 4-tert-butylphenol<br>98-54-4 | Category 1 (irreversible effects on the eye) | 1 s | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | highly irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Salicylic acid<br>69-72-7 | highly irritating | | rabbit | Draize Test |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | corrosive | | rabbit | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

**Respiratory or skin sensitization:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Result | Test type | Species | Method |
|---|---|---|---|---|
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | sensitising | Buehler test | guinea pig | Buehler test |
| m-Phenylenebis(methylamine)<br>1477-55-0 | Sub-Category 1B (sensitising) | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| 4-tert-butylphenol<br>98-54-4 | not sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | Sub-Category 1A (sensitising) | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Salicylic acid<br>69-72-7 | not sensitising | Mouse local lymphnode assay (LLNA) | mouse | equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | not sensitising | Guinea pig maximisation test | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |

**Germ cell mutagenicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|---|---|---|---|---|---|
| benzyl alcohol 100-51-6 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| m-Phenylenebis(methylamine) 1477-55-0 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | not specified |
| m-Phenylenebis(methylamine) 1477-55-0 | negative | in vitro mammalian chromosome aberration test | with and without | | not specified |
| 4-tert-butylphenol 98-54-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | EU Method B.13/14 (Mutagenicity) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine 25513-64-8 | negative | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Salicylic acid 69-72-7 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Salicylic acid 69-72-7 | negative | in vitro mammalian chromosome aberration test | with and without | | equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Salicylic acid 69-72-7 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine) 6864-37-5 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine) 6864-37-5 | negative | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine) 6864-37-5 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |

**Carcinogenicity**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous components CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Sex | Method |
|---|---|---|---|---|---|---|
| benzyl alcohol 100-51-6 | not carcinogenic | oral: gavage | 104 weeks once daily, 5 days/week | rat | male/female | equivalent or similar OECD Guideline 451 (Carcinogenicity Studies) |
| Salicylic acid 69-72-7 | not carcinogenic | oral: feed | 2 years daily | rat | male/female | not specified |

**Reproductive toxicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Result / Value | Test type | Route of application | Species | Method |
|---|---|---|---|---|---|
| benzyl alcohol<br>100-51-6 | NOAEL P 200 mg/kg | screening | oral: gavage | mouse | not specified |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | NOAEL P 10 mg/kg<br><br>NOAEL F1 10 mg/kg<br><br>NOAEL F2 10 mg/kg | two-generation study | oral: gavage | rat | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| Salicylic acid<br>69-72-7 | NOAEL P 250 mg/kg | three-generation study | oral: feed | rat | equivalent or similar to OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | NOAEL P 1,5 mg/kg<br><br>NOAEL F1 1,5 mg/kg | one-generation study | oral: gavage | rat | OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study) |

**STOT-single exposure:**

No data available.

**STOT-repeated exposure:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Result / Value | Route of application | Exposure time / Frequency of treatment | Species | Method |
|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | NOAEL 15 mg/kg | oral: gavage | M: 36 d / F: 48-52 d<br>daily | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | NOAEL 15 mg/kg | oral: gavage | 28 d<br>daily | rat | OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |
| benzyl alcohol<br>100-51-6 | NOAEL 400 mg/kg | oral: gavage | 13 weeks<br>once daily, 5 days/week | rat | equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | LOAEL >= 600 mg/kg | oral: gavage | 28 days<br>daily | rat | Guidelines for 28-Day Repeat Dose Toxicity Test (Japan) |
| 4-tert-butylphenol<br>98-54-4 | LOAEL >= 200 mg/kg | oral: gavage | daily | rat | not specified |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | NOAEL 10 mg/kg | oral: gavage | 13 weeks<br>daily | rat | FDA Guideline |
| Salicylic acid<br>69-72-7 | NOAEL 50 mg/kg | oral: feed | 2 years<br>daily | rat | not specified |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | NOAEL 2,5 mg/kg | oral: gavage | 3 m<br>5 d/w | rat | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | NOAEL 12 mg/m3 | inhalation | 3 m<br>6 h/d, 5 d/w | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable

## SECTION 12: Ecological information

**General ecological information:**
Do not empty into drains / surface water / ground water.

**12.1. Toxicity**

**Toxicity (Fish):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | LC50 | > 100 mg/l | 96 h | Leuciscus idus | DIN 38412-15 |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | LC50 | 96 mg/l | 96 h | Poecilia reticulata | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| benzyl alcohol<br>100-51-6 | LC50 | 460 mg/l | 96 h | Pimephales promelas | EPA OPP 72-1 (Fish Acute Toxicity Test) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | LC50 | 87,6 mg/l | 96 h | Oryzias latipes | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 4-tert-butylphenol<br>98-54-4 | LC50 | 5,14 mg/l | 96 h | Pimephales promelas | EU Method C.1 (Acute Toxicity for Fish) |
| 4-tert-butylphenol<br>98-54-4 | NOEC | > 0,01 - 0,1 mg/l | 128 d | Pimephales promelas | OECD Guideline 210 (fish early lite stage toxicity test) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | LC50 | 168 mg/l | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | LC50 | 174 mg/l | 48 h | Leuciscus idus | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | NOEC | 10,9 mg/l | 30 d | Danio rerio | OECD Guideline 210 (fish early lite stage toxicity test) |
| Salicylic acid<br>69-72-7 | LC50 | 1.370 mg/l | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | LC50 | 22,4 mg/l | 96 h | Oryzias latipes | OECD Guideline 203 (Fish, Acute Toxicity Test) |

**Toxicity (aquatic invertebrates):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | EC50 | 7,07 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | EC50 | 15,4 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| benzyl alcohol<br>100-51-6 | EC50 | 230 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | EC50 | 15,2 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 4-tert-butylphenol<br>98-54-4 | EC50 | 4,8 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| N-(3- | EC50 | 87,4 mg/l | 48 h | Daphnia magna | OECD Guideline 202 |

| | | | | | |
|---|---|---|---|---|---|
| (Trimethoxysilyl)propyl)ethyl enediamine<br>1760-24-3 | | | | | (Daphnia sp. Acute Immobilisation Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | EC50 | 31,5 mg/l | 24 h | Daphnia magna | DIN 38412, part 11 |
| Salicylic acid<br>69-72-7 | EC50 | 870 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | EC50 | 4,57 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

**Chronic toxicity (aquatic invertebrates):**

The table below presents the data of the classified substances present in the mixture.

| **Hazardous substances<br>CAS-No.** | **Value type** | **Value** | **Exposure time** | **Species** | **Method** |
|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | NOEC | 4 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| benzyl alcohol<br>100-51-6 | NOEC | 51 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | NOEC | 4,7 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| 4-tert-butylphenol<br>98-54-4 | NOEC | 0,73 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| N-(3-(Trimethoxysilyl)propyl)ethyl enediamine<br>1760-24-3 | NOEC | > 1 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | NOEC | 1,02 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| Salicylic acid<br>69-72-7 | NOEC | 10 mg/l | 21 d | Daphnia magna | OECD Guideline 202 (Daphnia sp. Chronic Immobilisation Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | NOEC | 4 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |

**Toxicity (Algae):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | EC50 | > 140 - 200 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | DIN 38412-09 |
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | EC10 | 100 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | DIN 38412-09 |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | EC10 | 1,2 mg/l | 72 h | Desmodesmus subspicatus | EU Method C.3 (Algal Inhibition test) |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | EC50 | 43,94 mg/l | 72 h | Desmodesmus subspicatus | EU Method C.3 (Algal Inhibition test) |
| benzyl alcohol<br>100-51-6 | EC50 | 770 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| benzyl alcohol<br>100-51-6 | NOEC | 310 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | EC50 | 33,3 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | NOEC | 22,9 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 4-tert-butylphenol<br>98-54-4 | EC50 | 11,2 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | DIN 38412-09 |
| 4-tert-butylphenol<br>98-54-4 | NOEC | 0,32 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | DIN 38412-09 |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | EC50 | 8,8 mg/l | 96 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | NOEC | 3,1 mg/l | 96 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | EC50 | 43,5 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | NOEC | 16 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Salicylic acid<br>69-72-7 | EC50 | > 100 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | EC50 | 7,9 mg/l | 72 h | not specified | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | NOEC | 0,13 mg/l | 72 h | not specified | OECD Guideline 201 (Alga, Growth Inhibition Test) |

**Toxicity (microorganisms):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | EC20 | > 1.000 mg/l | 3 h | activated sludge, industrial | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| benzyl alcohol<br>100-51-6 | EC10 | 658 mg/l | 17 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | Zellvermehrungshemm-Test) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | EC50 | > 1.000 mg/l | 30 min | activated sludge | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| 4-tert-butylphenol<br>98-54-4 | EC50 | > 10 mg/l | 3 h | activated sludge of a predominantly domestic sewage | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | EC 50 | 435 mg/l | 3 h | | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | EC10 | 72 mg/l | 16 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test) |
| Salicylic acid<br>69-72-7 | EC50 | > 1.000 mg/l | 3 h | not specified | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | EC20 | 160 mg/l | 30 min | activated sludge, domestic | ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge) |

**12.2. Persistence and degradability**

The table below presents the data of the classified substances present in the mixture.

| **Hazardous substances<br>CAS-No.** | **Result** | **Test type** | **Degradability** | **Exposure time** | **Method** |
|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | not readily biodegradable. | aerobic | 0 % | 28 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| benzyl alcohol<br>100-51-6 | readily biodegradable | aerobic | 92 - 96 % | 14 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | not readily biodegradable. | aerobic | 49 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| 4-tert-butylphenol<br>98-54-4 | readily biodegradable, but failing 10-day window | aerobic | 60 % | 28 day | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | | aerobic | 50 % | | OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test) |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | not readily biodegradable. | aerobic | 7 % | 28 d | EU Method C.4-A (Determination of the "Ready" BiodegradabilityDissolved Organic Carbon (DOC) Die-Away Test) |
| Salicylic acid<br>69-72-7 | readily biodegradable | aerobic | 88,1 % | 15 d | EU Method C.4-F (Determination of the "Ready" BiodegradabilityMITI Test) |
| Salicylic acid<br>69-72-7 | inherently biodegradable | aerobic | 100 % | 4 d | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | not inherently biodegradable | aerobic | 0 % | 28 d | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | not readily biodegradable. | aerobic | 0 % | 28 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |

**12.3. Bioaccumulative potential**

The table below presents the data of the classified substances present in the mixture.

| **Hazardous substances CAS-No.** | **Bioconcentration factor (BCF)** | **Exposure time** | **Temperature** | **Species** | **Method** |
|---|---|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | < 60 | 60 d | 24 °C | Cyprinus carpio | OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish) |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | 18 - 219 | 56 d | | Cyprinus carpio | OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish) |
| 4-tert-butylphenol<br>98-54-4 | 20 - 48 | 56 d | | Cyprinus carpio | OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | > 6 - < 60 | 60 d | | Cyprinus carpio | OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish) |

**12.4. Mobility in soil**

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | LogPow | Temperature | Method |
|---|---|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | 2,2 | 23 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | 2,68 | 21 °C | EU Method A.8 (Partition Coefficient) |
| benzyl alcohol<br>100-51-6 | 1,05 | 20 °C | EU Method A.8 (Partition Coefficient) |
| m-Phenylenebis(methylamine)<br>1477-55-0 | 0,18 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| 4-tert-butylphenol<br>98-54-4 | 3 | 23 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | -1,67 | | not specified |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | -0,3 | 25 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Salicylic acid<br>69-72-7 | 2,26 | 20 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | 1,8 - 2,3 | 23 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |

**12.5. Results of PBT and vPvB assessment**

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | PBT / vPvB |
|---|---|
| 4,4'-Methylenebis(cyclohexylamine)<br>1761-71-3 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Formaldehyde, polymer with benzenamine, hydrogenated<br>135108-88-2 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| benzyl alcohol<br>100-51-6 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| m-Phenylenebis(methylamine)<br>1477-55-0 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| 4-tert-butylphenol<br>98-54-4 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| N-(3-(Trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine<br>25513-64-8 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Salicylic acid<br>69-72-7 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)<br>6864-37-5 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |

**12.6. Endocrine disrupting properties**

not applicable

**12.7. Other adverse effects**
Not available.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

Product disposal:
Do not empty into drains / surface water / ground water.
Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09* waste adhesives and sealants containing organic solvents and other dangerous substances
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

## SECTION 14: Transport information

**14.1. UN number or ID number**

| | |
|---|---|
| ADR | 2735 |
| RID | 2735 |
| ADN | 2735 |
| IMDG | 2735 |
| IATA | 2735 |

**14.2. UN proper shipping name**

| | |
|---|---|
| ADR | AMINES, LIQUID, CORROSIVE, N.O.S. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated) |
| RID | AMINES, LIQUID, CORROSIVE, N.O.S. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated) |
| ADN | AMINES, LIQUID, CORROSIVE, N.O.S. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated) |
| IMDG | AMINES, LIQUID, CORROSIVE, N.O.S. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated) |
| IATA | Amines, liquid, corrosive, n.o.s. (4,4-methylenebis-cyclohexylamine,Formaldehyde, polymer with benzenamine, hydrogenated) |

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

| | |
|---|---|
| ADR | 8 |
| RID | 8 |
| ADN | 8 |
| IMDG | 8 |
| IATA | 8 |

**14.4. Packing group**

| | |
|---|---|
| ADR | II |
| RID | II |
| ADN | II |
| IMDG | II |
| IATA | II |

**14.5. Environmental hazards**

| | |
|---|---|
| ADR | not applicable |
| RID | not applicable |
| ADN | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

**14.6. Special precautions for user**

| | |
|---|---|
| ADR | not applicable |

| | |
|---|---|
| | Tunnelcode: (E) |
| RID | not applicable |
| ADN | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

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

not applicable

## SECTION 15: Regulatory information

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

| | |
|---|---|
| Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): | Not applicable |
| Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): | Not applicable |
| Persistent organic pollutants (Regulation (EU) 2019/1021): | Not applicable |
| VOC content (2010/75/EC) | < 3 % |

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

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

| | |
|---|---|
| WGK: | WGK 3: highly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV) )<br>Classification according to AwSV, Annex 1 (5.2) |
| Storage class according to TRGS 510: | 8B |

## SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H361d Suspected of damaging the unborn child.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
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.

| | |
|---|---|
| ED: | Substance identified as having endocrine disrupting properties |
| EU OEL: | Substance with a Union workplace exposure limit |
| EU EXPLD 1: | Substance listed in Annex I, Reg (EC) No. 2019/1148 |
| EU EXPLD 2 | Substance listed in Annex II, Reg (EC) No. 2019/1148 |
| SVHC: | Substance of very high concern (REACH Candidate List) |
| PBT: | Substance fulfilling persistent, bioaccumulative and toxic criteria |
| PBT/vPvB: | Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria |
| vPvB: | Substance fulfilling very persistent and very bioaccumulative criteria |

**Further information:**

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel´s Product Safety and Regulatory Affairs Department (SDSinfo.Adhesive@henkel.com) prior to export to other territories than the European Union.

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Dear Customer,
Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).

**Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.**