

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

### 1.1 Product identifier

#### Trade name/designation

WEBAC 4270 Comp. A  
Special Epoxy Primer

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

Restricted to professional users.

#### Relevant identified uses

epoxy resin component

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

#### supplier

WEBAC-Chemie GmbH  
Fahrenberg 22  
22885 Barsbüttel  
Germany

Telephone: +49 40 670570  
Telefax: +49 40 6703227

#### Department responsible for information

E-mail (competent person) msds@webac.de

### 1.4 Emergency telephone number

#### Giftinformationszentrum-Nord

Emergency telephone number: +49 551 192 40  
available 24h/365days; Information will be provided in German and English

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Eye Irrit. 2; Serious eye damage/eye irritation; H319 Causes serious eye irritation.

\* Repr. 1B; Reproductive toxicity; H360F May damage fertility.

Skin Irrit. 2; Skin corrosion/irritation; H315 Causes skin irritation.

Skin Sens. 1; Skin sensitisation; H317 May cause an allergic skin reaction.

Aquatic Chronic 2; Hazardous to the aquatic environment; H411 Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

#### Hazard pictograms



GHS07 GHS08 GHS09

#### Signal word

\* Danger

#### Hazard statements

|       |  |
|-------|--|
| H319  | Causes serious eye irritation.                   |
| H360F | May damage fertility.                            |
| H315  | Causes skin irritation.                          |
| H317  | May cause an allergic skin reaction.             |
| H411  | Toxic to aquatic life with long lasting effects. |

#### Precautionary statements

|             |  |
|-------------|--|
| P201        | Obtain special instructions before use.                    |
| P273        | Avoid release to the environment.                          |
| P280        | Wear protective gloves and eye protection/face protection. |
| P308 + P313 | IF exposed or concerned: Get medical advice/attention.     |
| P391        | Collect spillage.  |

**Hazard components for labelling**

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane  
Hydrocarbons, C9-unsaturated, polymerized  
Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)

**Supplemental hazard information**

EUH205 Contains epoxy constituents. May produce an allergic reaction.

**Other labelling**

Restricted to professional users.

**2.3 Other hazards**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**SECTION 3: Composition/information on ingredients.**

**3.2 Mixtures**

**Description**

epoxy resin component

**Hazardous ingredients**

| CAS No.<br>EC No.<br>Index No.              | Substance name<br>REACH No.<br>Classification according to Regulation (EC) No 1272/2008 [CLP]  | weight-%     |
|---|--|--------------|
| *<br>933999-84-9<br>618-939-5<br>-          | <b>reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)</b><br>01-2119463471-41-xxxx<br>Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Eye Irrit. 2 H319 / Repr. 1B H360F<br>ATE (oral): = 2,190 mg/kg  | 25,0 <= 50,0 |
| *<br>1675-54-3<br>216-823-5<br>603-073-00-2 | <b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane</b><br>01-2119456619-26-xxxx<br>Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Eye Irrit. 2 H319 / Aquatic Chronic 2 H411<br>Specific concentration limit (SCL)<br>Eye Irrit. 2 H319: >= 5,00 / Skin Irrit. 2 H315: >= 5,00<br>ATE (dermal): = 23,000 mg/kg<br>ATE (oral): = 15,000 mg/kg               | 25,0 <= 50,0 |
| *<br>-<br>701-263-0<br>-                    | <b>Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane</b><br>01-2119454392-40-xxxx<br>Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411<br>ATE (oral): > 5,000 mg/kg<br>ATE (dermal): > 2,000 mg/kg | 10,0 <= 25,0 |
| *<br>71302-83-5<br>701-299-7<br>-           | <b>Hydrocarbons, C9-unsaturated, polymerized</b><br>01-2119555292-40-xxxx<br>Asp. Tox. 1 H304 / Skin Sens. 1A H317 / Aquatic Chronic 3 H412  | 2,50 <= 10,0 |

**Remark**

Full text of H- and EUH-statements: see section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

**Following inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**Following ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

**Self-protection of the first aider**

First aider: Pay attention to self-protection!

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

**Symptoms**

In all cases of doubt, or when symptoms persist, seek medical advice.

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

First Aid, decontamination, treatment of symptoms.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Powder, spray mist, (water)

**Unsuitable extinguishing media**

Strong water jet

**5.2 Special hazards arising from the substance or mixture**

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

**5.3 Advice for firefighters**

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

**SECTION 6: Accidental release measures**

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

Ventilate affected area. Do not breathe vapours.

**6.2 Environmental precautions**

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

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

**For containment**

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

**For cleaning up**

Clean using cleansing agents. Do not use solvents.

**6.4 Reference to other sections**

Safe handling: see section 7

Personal protection equipment: refer to section 8

Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

**Advices on safe handling**

\* Avoid contact with skin, eyes and clothes. Avoid breathing spray.

Personal protection equipment: see section 8

Follow the legal protection and safety regulations.

**Advices on general occupational hygiene**

When using do not eat, drink or smoke.

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

**Requirements for storage rooms and vessels**

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrsiVO). Access only for authorised persons. Smoking is forbidden.

Always keep in containers that correspond to the material of the original container. Store carefully closed containers upright to prevent any leaks. Do not empty containers with pressure - no pressure vessel!

**Hints on joint storage**

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Do not store together with: Food and feedingstuffs

**Storage class** LGK6.1C - Combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects

**Further information on storage conditions**

\* Store in a well-ventilated and dry room at temperatures between 5 °C and 30 °C.

**7.3 Specific end use(s)**

Observe technical data sheet.

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

**8.1 Control parameters**

**Occupational exposure limit values**

No data available

**Biological limit values**

No data available

**DNEL worker**

| CAS No.       | Substance name  | DNEL type                             | DNEL value              |
|---------------|---|---------------------------------------|-------------------------|
| * 1675-54-3   | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane   | DNEL long-term dermal (systemic)      | 0.75 mg/kg bw/day       |
| * 1675-54-3   | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane   | DNEL long-term inhalative (systemic)  | 4.93 mg/m <sup>3</sup>  |
| * 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | DNEL long-term inhalative (systemic)  | 3.3 mg/m <sup>3</sup>   |
| * 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | DNEL long-term dermal (systemic)      | 4.7 mg/kg               |
| * -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | DNEL long-term dermal (systemic)      | 104.15 mg/kg bw/day     |
| * -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | DNEL long-term inhalative (systemic)  | 29.39 mg/m <sup>3</sup> |
| * 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | DNEL long-term dermal (systemic)      | 2.8 mg/kg bw/day        |
| * 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | DNEL long-term inhalative (systemic)  | 4.9 mg/m <sup>3</sup>   |
| * 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | DNEL acute inhalative (systemic)      | 4.9 mg/m <sup>3</sup>   |
| * 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | DNEL acute dermal, short-term (local) | 22.6 µg/cm <sup>2</sup> |
| * 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | DNEL long-term dermal (local)         | 22.6 µg/cm <sup>2</sup> |

**PNEC**

| CAS No.   | Substance name  | PNEC type                         | PNEC Value |
|-----------|---|-----------------------------------|------------|
| 1675-54-3 | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane | PNEC Secondary Poisoning          | 11 mg/kg   |
| 1675-54-3 | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane | PNEC sewage treatment plant (STP) | 10 mg/L    |

**Safety Data Sheet**  
**according to Regulation (EC) No. 1907/2006 (REACH)**  
**according to Regulation (EU) 2020/878**



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|   |             |   |                                    |             |
|---|-------------|---|------------------------------------|-------------|
| * | 1675-54-3   | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane   | PNEC aquatic, freshwater           | 0.006 mg/L  |
| * | 1675-54-3   | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane   | PNEC aquatic, marine water         | 0.001 mg/L  |
| * | 1675-54-3   | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane   | PNEC sediment, marine water        | 0.034 mg/kg |
| * | 1675-54-3   | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane   | PNEC sediment, freshwater          | 0.341 mg/kg |
| * | 1675-54-3   | 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane   | PNEC soil, freshwater              | 0.065 mg/kg |
| * | 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | PNEC aquatic, freshwater           | 0.026 mg/L  |
| * | 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | PNEC aquatic, intermittent release | 0.54 mg/L   |
| * | 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | PNEC aquatic, marine water         | 0.003 mg/L  |
| * | 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | PNEC sewage treatment plant (STP)  | 0.26 mg/L   |
| * | 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | PNEC sediment, marine water        | 196 mg/kg   |
| * | 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | PNEC sediment, freshwater          | 1,960 mg/kg |
| * | 71302-83-5  | Hydrocarbons, C9-unsaturated, polymerized   | PNEC soil, freshwater              | 391 mg/kg   |
| * | -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | PNEC aquatic, marine water         | 0 mg/L      |
| * | -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | PNEC aquatic, freshwater           | 0.003 mg/L  |
| * | -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | PNEC aquatic, intermittent release | 0.025 mg/L  |
| * | -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | PNEC sewage treatment plant (STP)  | 10 mg/L     |
| * | -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | PNEC sediment, marine water        | 0.029 mg/kg |
| * | -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | PNEC sediment, freshwater          | 0.294 mg/kg |
| * | -           | Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane | PNEC soil, freshwater              | 0.237 mg/kg |
| * | 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | PNEC aquatic, marine water         | 0.001 mg/L  |
| * | 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | PNEC aquatic, freshwater           | 0.011 mg/L  |
| * | 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | PNEC aquatic, intermittent release | 0.115 mg/L  |
| * | 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)   | PNEC sewage treatment plant (STP)  | 1 mg/L      |

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|   |             |   |                             |             |
|---|-------------|---|-----------------------------|-------------|
| * | 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2) | PNEC sediment, marine water | 0.028 mg/kg |
| * | 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2) | PNEC sediment, freshwater   | 0.283 mg/kg |
| * | 933999-84-9 | reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2) | PNEC soil, freshwater       | 0.223 mg/kg |

## 8.2 Exposure controls

Provide good ventilation. This can be achieved with local or room suction.

### Personal protection equipment

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### Hand protection

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material  $\geq$  0.4 mm

Breakthrough time  $\geq$  480 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.

Recommended glove articles: EN ISO 374

#### Skin protection

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

#### Eye/face protection

Eye glasses with side protection: EN 166

Wear closely fitting protective glasses in case of splashes.

#### Body protection

Wear suitable protective clothing. Change contaminated, saturated clothing.

#### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|   |                           |
|---|---------------------------|
| Physical state                          | Liquid                    |
| Colour                                  | colourless                |
| Odour                                   | characteristic            |
| pH                                      | not applicable            |
| Melting point/freezing point            | not determined            |
| Initial boiling point and boiling range | not determined            |
| Flash point                             | > 101 °C                  |
| flammability                            | not applicable            |
| Lower explosion limit at 20°C           | not determined            |
| Upper explosion limit at 20°C           | not determined            |
| Vapour pressure at 20°C                 | 0.354 mbar                |
| Relative vapour density                 | not applicable            |
| Density at 20 °C                        | 1.1 kg/l                  |
| Water solubility at 20°C                | not determined            |
| Partition coefficient: n-octanol/water  | see section 12            |
| Ignition temperature in °C              | not determined            |
| Decomposition temperature               | not determined            |
| Viscosity at 20 °C:                     | > 20.5 mm <sup>2</sup> /s |
| particle characteristics                | not applicable            |



## 9.2 Other information

not applicable

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions.  
Please note the expiry date.

### 10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

### 10.4 Conditions to avoid

Protect from moisture. Avoid high temperatures or direct sunlight.

### 10.5 Incompatible materials

No further relevant information available.

### 10.6 Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures e.g.: Carbon dioxide (CO<sub>2</sub>), Carbon monoxide, smoke.

## SECTION 11: Toxicological information

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

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### \* 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane

LD50: dermal (Rabbit): = 23,000 mg/kg

#### \* LD50: oral (Rat): = 15,000 mg/kg

#### \* Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane

LD50: oral (Rat): > 5,000 mg/kg

#### \* LD50: dermal (Rat): > 2,000 mg/kg

#### \* reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)

LD50: oral (Rat): = 2,190 mg/kg

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction.

#### Overall assessment on CMR properties

#### \* May damage fertility.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### \* STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

### 11.2 Information on other hazards

#### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxic to aquatic life with long lasting effects.

#### *Algae toxicity*

**2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane**

ErC50: = 11 mg/L (72 h)

**Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane**

ErC50: = 1.8 mg/L (72 h)

**reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)**

ErC50: 23.1 mg/L (48 h)

#### *Daphnia toxicity*

**2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane**

EC50 = 1.8 mg/L (48 h)

**Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane**

EC50 = 2.55 mg/L (48 h)

**reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)**

EC50 47 mg/L (48 h)

#### *Fish toxicity*

**2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane**

LC50: (Oncorhynchus mykiss (Rainbow trout)): = 2 mg/L (96 h)

**Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane**

LC50: = 2.54 mg/L (96 h)

**reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)**

LC50: (Leuciscus idus (golden orfe)): 30 mg/L (96 h)

### 12.2 Persistence and degradability

No information available.

### 12.3 Bioaccumulative potential

**reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)**

\* Partition coefficient: n-octanol/water = 0.822  
Method: OECD 107

### 12.4 Mobility in soil

\* **Hydrocarbons, C9-unsaturated, polymerized**  
= 5.5

### 12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7 Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### **Product/Packaging disposal**

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

#### **Waste codes/waste designations according to EWC/AVV**

080409\* - Waste adhesives and sealants containing organic solvents or other dangerous substances  
Hazardous waste according to Directive 2008/98/EC (waste framework directive).

#### **Other disposal recommendations**



Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

## SECTION 14: Transport information

### 14.1 UN number or ID number

UN 3082

### 14.2 UN proper shipping name

#### Land transport (ADR/RID)

UMWELTGEFÄHRDENDER STOFF, FLÜSSIG, N.A.G. (enthält BIPHENOL-A-EPICHLORHYDRINHARZE, BIPHENOL-F-EPICHLORHYDRINHARZE)

#### Sea transport (IMDG)

- \* Environmentally hazardous substance, liquid, n.o.s. (contains BIPHENOL-A-EPICHLORHYDRIN RESINS, BIPHENOL-F-EPICHLORHYDRIN RESINS)

#### Air transport (ICAO-TI / IATA-DGR)

- \* Environmentally hazardous substance, liquid, n.o.s. (contains BIPHENOL-A-EPICHLORHYDRIN RESINS, BIPHENOL-F-EPICHLORHYDRIN RESINS)

### 14.3 Transport hazard class(es)

|                                    |   |
|------------------------------------|---|
| Land transport (ADR/RID)           | 9 |
| Sea transport (IMDG)               | 9 |
| Air transport (ICAO-TI / IATA-DGR) | 9 |

### 14.4 Packing group

|                                    |     |
|------------------------------------|-----|
| Land transport (ADR/RID)           | III |
| Sea transport (IMDG)               | III |
| Air transport (ICAO-TI / IATA-DGR) | III |

### 14.5 Environmental hazards

- |                          |  |
|--------------------------|--|
| Land transport (ADR/RID) | ENVIRONMENTALLY HAZARDOUS  |
| * Sea transport (IMDG)   | Marine pollutant / 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane |

### 14.6 Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

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

No transport as bulk according to IBC Code.

### 14.8 Additional information

#### Land transport (ADR/RID)

Tunnel restriction code: -  
Limited quantity (LQ): 5 ltr  
Hazard identification number (Kemler No.): 90

#### Sea transport (IMDG)

EmS-No.: F-A S-F  
Limited quantity (LQ): 5 ltr

#### Air transport (ICAO-TI / IATA-DGR)

not applicable

## SECTION 15: Regulatory information

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

#### EU legislation

#### Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.  
Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

#### Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC value: 0 g/l

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]**

**Hazard categories / Named dangerous substances**

E2 Hazardous to the aquatic environment in Category Chronic 2

Quantity 1: 200t; Quantity 2: 500t

**National regulations**

Observe in addition any national regulations!

**15.2 Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**List of relevant hazard statements and/or precautionary statements from sections 2 to 15**

|         |  |
|---------|--|
| H304    | May be fatal if swallowed and enters airways.      |
| H315    | Causes skin irritation.                            |
| H317    | May cause an allergic skin reaction.               |
| H319    | Causes serious eye irritation.                     |
| * H360F | May damage fertility.                              |
| H411    | Toxic to aquatic life with long lasting effects.   |
| H412    | Harmful to aquatic life with long lasting effects. |

**Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]**

|                   |                     |
|-------------------|---------------------|
| * Eye Irrit. 2    | Calculation method. |
| * Repr. 1B        | Calculation method. |
| Skin Irrit. 2     | Calculation method. |
| Skin Sens. 1      | Calculation method. |
| Aquatic Chronic 2 | Calculation method. |

**Abbreviations and acronyms**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

OEL: Occupational Exposure Limit Value

BLV: Biological limit values

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging

CMR: Carcinogenic, Mutagenic and Reprotoxic

DIN: German Institute for Standardization / German industrial standard

DNEL: Derived No-Effect Level

EAKV: European Waste Catalogue Directive

EC: Effective Concentration

EC: European Community

EN: European Standard

IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG Code: International Maritime Code for Dangerous Goods

ISO: International Organization for Standardization

LC: Lethal Concentration

LD: Lethal Dose

:

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

OECD: Organisation for Economic Cooperation and Development

PBT: persistent, bioaccumulative, toxic

PNEC: Predicted No Effect Concentration

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

UN: United Nations

VOC: Volatile Organic Compounds

vPvB: very persistent and very bioaccumulative

**Indication of changes**

\* Data changed compared with the previous version.