

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

1.1 Product identifier

Trade name/designation

WEBAC 4520 Comp. A
Epoxy Putty

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
Deutschland

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.

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 GHS09

Signal word

Warning

Hazard statements

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

Precautionary statements

P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P391	Collect spillage.

Hazard components for labelling

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane
Hydrocarbons, C9-unsaturated, polymerized
Phenol, styrenated

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.

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. EC No. Index No.	Substance name REACH No. Classification according to Regulation (EC) No 1272/2008 [CLP]	weight-%
1675-54-3 216-823-5 -	2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 01-2119456619-26-xxxx Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Eye Irrit. 2 H319 / Aquatic Chronic 2 H411 Specific concentration limit (SCL) Eye Irrit. 2 H319: >= 5,00 / Skin Irrit. 2 H315: >= 5,00 ATE (dermal): = 23.000 mg/kg ATE (oral): = 15.000 mg/kg	10,0 < 25,0
933999-84-9 618-939-5 -	reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2) 01-2119463471-41-xxxx Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Eye Irrit. 2 H319 / Aquatic Chronic 3 H412 ATE (oral): = 2.190 mg/kg	2,50 < 10,0
71302-83-5 701-299-7 -	Hydrocarbons, C9-unsaturated, polymerized 01-2119555292-40-xxxx Asp. Tox. 1 H304 / Skin Sens. 1A H317 / Aquatic Chronic 3 H412	2,50 < 10,0
- 701-263-0 -	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 01-2119454392-40-xxxx Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411 ATE (oral): > 5.000 mg/kg ATE (dermal): > 2.000 mg/kg	2,50 < 10,0
61788-44-1 262-975-0 -	Phenol, styrenated 01-2119980970-27-xxxx Skin Irrit. 2 H315 / Skin Sens. 1A H317 / Aquatic Chronic 2 H411 ATE (oral): > 2.000 mg/kg ATE (dermal): > 2.000 mg/kg	2,50 < 10,0
112-34-5 203-961-6 603-096-00-8	2-(2-butoxyethoxy)ethanol 01-2119475104-44-xxxx Eye Irrit. 2 H319 ATE (dermal): = 2.700 mg/kg ATE (oral): = 3.384 mg/kg	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 (CO₂), 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

LGK10 - Combustible liquids that cannot be assigned to any of the above storage classes

7.3 Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	Source	Long-term /short-term (Spitzenbegrenzung)
112-34-5	2-(2-butoxyethoxy)ethanol	-	67,5 / 101,2 (-) mg/m ³
112-34-5	2-(2-butoxyethoxy)ethanol	IOELV	67,5 / 101,2 (-) mg/m ³
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	-	10 / - (-) mg/m ³ (inhalable fraction)
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	-	0,8 / - (-) mg/m ³ (respirable fraction)

Additional information

Long-term: Long-term occupational exposure limit value

short-term: short-term occupational exposure limit value

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 ³
112-34-5	2-(2-butoxyethoxy)ethanol	DNEL long-term dermal (systemic)	20 mg/kg bw/day
112-34-5	2-(2-butoxyethoxy)ethanol	DNEL long-term inhalative (local)	67,5 mg/m ³
112-34-5	2-(2-butoxyethoxy)ethanol	DNEL long-term inhalative (systemic)	67,5 mg/m ³
112-34-5	2-(2-butoxyethoxy)ethanol	DNEL acute inhalative (local)	101,2 mg/m ³
71302-83-5	Hydrocarbons, C9-unsaturated, polymerized	DNEL long-term inhalative (systemic)	3,3 mg/m ³
71302-83-5	Hydrocarbons, C9-unsaturated, polymerized	DNEL long-term dermal (systemic)	4,7 mg/kg
61788-44-1	Phenol, styrenated	DNEL long-term dermal (systemic)	2,92 mg/kg bw/day
61788-44-1	Phenol, styrenated	DNEL long-term inhalative (systemic)	4,11 mg/m ³
-	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-	DNEL long-term inhalative	29,39 mg/m ³

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



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Version 1.0

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	phenyleneoxymethylene]]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane	(systemic)	
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/m³
933999-84-9	reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	DNEL acute inhalative (systemic)	4,9 mg/m³

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
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
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC Secondary Poisoning	56 mg/kg
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC aquatic, intermittent release	3,9 mg/L
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC aquatic, freshwater	1 mg/L
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC aquatic, marine water	0,1 mg/L
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC sewage treatment plant (STP)	200 mg/L
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC sediment, marine water	0,4 mg/kg
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC sediment, freshwater	4 mg/kg
112-34-5	2-(2-butoxyethoxy)ethanol	PNEC soil, freshwater	0,4 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
61788-44-1	Phenol, styrenated	PNEC aquatic, freshwater	11,5 mg/L
61788-44-1	Phenol, styrenated	PNEC aquatic, marine water	1,15 mg/L
61788-44-1	Phenol, styrenated	PNEC aquatic, intermittent release	13,5 mg/L
61788-44-1	Phenol, styrenated	PNEC sewage treatment plant (STP)	10 mg/L
61788-44-1	Phenol, styrenated	PNEC sediment, marine water	0,156 mg/kg
61788-44-1	Phenol, styrenated	PNEC sediment, freshwater	1,564 mg/kg
61788-44-1	Phenol, styrenated	PNEC soil, freshwater	0,305 mg/kg
-	Reaction mass of 2,2'-[methylenebis(2,1-	PNEC aquatic, marine water	0 mg/L

	phenyleneoxymethylene]]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-((2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl)oxirane		
-	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	0,011 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
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 >= 0,4 mm

Breakthrough time >= 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	grey
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	0,383 mbar
Relative vapour density	not applicable
Density at 20 °C	1,56 kg/l
Water solubility at 20°C	practically insoluble
Partition coefficient: n-octanol/water	see section 12
Ignition temperature in °C	not determined
Decomposition temperature	not determined
Viscosity at 20 °C:	> 20,5 mm²/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 (CO₂), 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

2-(2-butoxyethoxy)ethanol

LD50: dermal (Rabbit): = 2.700 mg/kg

LD50: oral (Rat): = 3.384 mg/kg

Phenol, styrenated

LD50: oral (Rat): > 2.000 mg/kg

LD50: dermal (Rat): > 2.000 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

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

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.

Indications for this are:

Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

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)

2-(2-butoxyethoxy)ethanol

NOEC (Scenedesmus subspicatus): > 100 mg/L (96 h)

Phenol, styrenated

ErC50: (Scenedesmus subspicatus): = 3,14 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)

2-(2-butoxyethoxy)ethanol

EC50 (Daphnia magna (Big water flea)): = 2.850 mg/L (24 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)

2-(2-butoxyethoxy)ethanol

EC10: (Pseudomonas putida): = 1.170 mg/L (16 h)

LC50: (Leuciscus idus (golden orfe)): = 2.750 mg/L (48 h)

LC50: (Lepomis macrochirus (Bluegill)): = 1.300 mg/L (96 h)

Phenol, styrenated

LC50: = 14,8 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

2-(2-butoxyethoxy)ethanol

Biodegradation = 76 % (28 d)

12.3 Bioaccumulative potential

2-(2-butoxyethoxy)ethanol

Partition coefficient: n-octanol/water = 0,56

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 BISPHENOL-A-EPICHLORHYDRINHARZE, BISPHENOL-F-EPICHLORHYDRINHARZE)

Sea transport (IMDG)

Environmentally hazardous substance, liquid, n.o.s. (contain BISPHENOL-A-EPICHLORHYDRIN RESINS, BISPHENOL-F-EPICHLORHYDRIN RESINS)

Air transport (ICAO-TI / IATA-DGR)

Environmentally hazardous substance, liquid, n.o.s. (contain BISPHENOL-A-EPICHLORHYDRIN RESINS, BISPHENOL-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 / BISPHENOL-A-EPICHLORHYDRINHARZE

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: 47 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.
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.
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.