

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** Floortec Epoxy Hardener 849  
Floortec Epoxi-Härter 849  
**Revision date :** 18.05.2022  
**Print date :** 18.05.2022

**Version (Revision) :** 17.0.0 (16.0.0)

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

### 1.1 Product identifier

Floortec Epoxy Hardener 849  
Floortec Epoxi-Härter 849

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

#### Relevant identified uses

##### Products Category [PC]

PC 9 - Coatings and paints, fillers, putties, thinners.

#### Uses advised against

There are no information about relevant identified uses of the product according to the Regulation (EC) No. 1907/2006 (REACH-Regulation), which are advised against. For using the product observe the information in the Technical data sheet of the product.

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

#### Supplier

Brillux GmbH & Co KG  
www.brillux.de

**Street :** Weseler Straße 401

**Postal code/City :** D - 48163 Münster

**Telephone :** +49 (0)251-7188-0

**Telefax :** +49 (0)251-7188-280

#### Information contact :

Electronic mail address of the well-informed person for safety data sheets:sdb@brillux.de

### 1.4 Emergency telephone number

Outside the business hours (9 a.m. to 5 p.m.):  
(Giftinformationszentrum-Nord, Göttingen, consultation in german or english language)  
Telephone: +49 (0)551-19240.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.

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

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

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

### 2.2 Label elements

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

##### Hazard pictograms



Environment (GHS09) · Exclamation mark (GHS07)

#### Signal word

Warning

#### Hazard components for labelling

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2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; CAS No. : 1675-54-3  
P-TERT-BUTYLPHENYL-1-(2,3-EPOXY)PROPYLETHER ; CAS No. : 3101-60-8  
REACTION MASS OF 2,2'-[METHYLENEBIS(4,1-PHENYLENEOXY METHYLENE)]DIOXIRANE AND 2-({2-[4-(OXIRAN-2-YLMETHOXY) BENZYL]PHENOXY}METHYL)OXIRANE AND 2,2'-[METHYLENEBIS(2,1-PHENYLENEOXYMETHYLENE)]DIOXIRAN ; CAS No. : 9003-36-5

## Hazard statements

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.

## Precautionary statements

P102 Keep out of reach of children.  
P262 Do not get in eyes, on skin, or on clothing.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P391 Collect spillage.  
P501 Dispose of contents/container to approved disposal company or local collection.

## Special rules for supplemental label elements for certain mixtures

EUH205 Contains epoxy constituents. May produce an allergic reaction.

## 2.3 Other hazards

The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605. The product does not contain any substances, which fulfil the criteria for PBT or vPvB in accordance with the Annex XIII of the Regulation (EC) No 1907/2006 (REACH-Regulation).

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description

Hardener based on epoxy resins.

#### Hazardous ingredients

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; REACH No. : 01-2119456619-26 ; EC No. : 216-823-5; CAS No. : 1675-54-3

Weight fraction :  $\geq 65 - < 70$  %  
Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319  
Specific Conc. Limits : Eye Irrit. 2 ; H319: C  $\geq 5$  % • Skin Irrit. 2 ; H315: C  $\geq 5$  %

P-TERT-BUTYLPHENYL-1-(2,3-EPOXY)PROPYLETHER ; REACH No. : 01-2119959496-2 ; EC No. : 221-453-2; CAS No. : 3101-60-8

Weight fraction :  $\geq 15 - < 20$  %  
Classification 1272/2008 [CLP] : Skin Sens. 1 ; H317 Aquatic Chronic 2 ; H411

REACTION MASS OF 2,2'-[METHYLENEBIS(4,1-PHENYLENEOXY METHYLENE)]DIOXIRANE AND 2-({2-[4-(OXIRAN-2-YLMETHOXY) BENZYL]PHENOXY}METHYL)OXIRANE AND 2,2'-[METHYLENEBIS(2,1-PHENYLENEOXYMETHYLENE)]DIOXIRAN ; REACH No. : 01-2119454392-40 ; EC No. : 701-263-0; CAS No. : 9003-36-5

Weight fraction :  $\geq 15 - < 20$  %  
Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Aquatic Chronic 2 ; H411 EUH205

#### Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

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## 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 attention. Immediately remove all contaminated clothing. In case of unconsciousness: lay on side - call a doctor. If unconscious no administration by mouth, storage in recovery position and seek medical advice. If medical advice is needed, have product container or label at hand.

#### Following inhalation

When symptoms persists, take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration.

#### In case of skin contact

Take off immediately all contaminated clothes. Wash away with soap and water and rinse. Do NOT use solvents or thinners. If skin irritation continues, consult a doctor.

#### After eye contact

Remove contact lenses, keep eyelids open. Rinse open eye immediately with plenty of running water. Seek medical advice if complaint continues.

#### Following ingestion

Drink water in small draught. Keep at rest. Do not induce vomiting. When swallowed immediately consult and show packing or label to physician.

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

Potential symptoms: Skin and eye irritation are possible. Allergic symptoms.

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

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

#### Unsuitable extinguishing media

In case of fire: Do not use waterjet for extinction.

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

#### Hazardous combustion products

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

### 5.3 Advice for firefighters

#### Special protective equipment for firefighters

When extinguishing fires, use breathing apparatus with an independent source of air.

### 5.4 Additional information

Cool endangered containers with water in case of fire. Do not allow run-off from fire-fighting to enter drains or water courses.

## SECTION 6: Accidental release measures

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

Keep no protective persons away, personal should wear protective clothings. Refer to protective measures listed in sections 7 and 8.

### 6.2 Environmental precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in

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accordance with local regulations. Holding polluted washing water back and disposing of duly.

## 6.3 Methods and material for containment and cleaning up

### For cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). The areas concerned cleaning with a customary water based cleaning agent, not using organic solvents if possible.

## 6.4 Reference to other sections

See Section 7 for information on safe handling.  
You find information about the safety equipment of persons in the section 8,  
information about the refuse disposal in section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Protective measures

No special measures necessary in the case of regulation storage and handling. Ensure a good ventilation in room and working area. For personal protection see Section 8. Avoid contact with skin and eyes. Read label before use.

#### Measures to prevent fire

Cool endangered containers with water.

#### Advices on general occupational hygiene

While working do not eat, drink or smoke. Wash hands and face before breaks and after work and take a shower if necessary. Immediately remove all contaminated clothing.

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

#### Requirements for storage rooms and vessels

Keep container tightly in a dry, cool and good ventilated place. Do not store the product in lounge room. Keep only in the original container. Protect against frost. Keep out of the reach of children.

#### Hints on joint storage

Do not store together with oxidising substances. Store away from foodstuffs.

**Storage class (TRGS 510) :** 10

#### Further information on storage conditions

Keep container tightly sealed. Store at 5°-35°C. Containers should be kept dry and sealed.

### 7.3 Specific end use(s)

For using the product observe the information in the Technical data sheet of the product.

#### Industrial sector specific solutions

**GISCODE :** Product code in accordance with GISBAU (hazardous materials information system of the German professional associations of the building and construction industry) for epoxy resin coating cloths (GISCODE): RE20.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### DNEL-/PNEC-values

##### DNEL/DMEL

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; CAS No. : 1675-54-3

Limit value type :	DNEL Consumer (systemic)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	0,5 mg/kg
Assessment factor :	1 D
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Dermal

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Exposure frequency : Long-term  
Limit value : 0,0893 mg/kg  
Assessment factor : 1 D  
Limit value type : DNEL Consumer (systemic)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 0,87 mg/m<sup>3</sup>  
Limit value type : DNEL worker (systemic)  
Exposure route : Dermal  
Exposure frequency : Long-term  
Limit value : 0,75 mg/kg  
Assessment factor : 1 D  
Limit value type : DNEL worker (systemic)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 4,93 mg/m<sup>3</sup>  
P-TERT-BUTYLPHENYL-1-(2,3-EPOXY)PROPYLETHER ; CAS No. : 3101-60-8  
Limit value type : DNEL Consumer (local)  
Exposure route : Dermal  
Exposure frequency : Short-term  
Limit value : 0,00095 mg/cm<sup>2</sup>  
Limit value type : DNEL Consumer (local)  
Exposure route : Dermal  
Exposure frequency : Long-term  
Limit value : 0,00095 mg/cm<sup>2</sup>  
Limit value type : DNEL Consumer (local)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 11,7 mg/m<sup>3</sup>  
Limit value type : DNEL Consumer (systemic)  
Exposure route : Dermal  
Exposure frequency : Short-term  
Limit value : 3,3 mg/kg  
Assessment factor : 1 D  
Limit value type : DNEL Consumer (systemic)  
Exposure route : Dermal  
Exposure frequency : Long-term  
Limit value : 3,3 mg/kg  
Assessment factor : 1 D  
Limit value type : DNEL Consumer (systemic)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 11,7 mg/m<sup>3</sup>  
Limit value type : DNEL worker (local)  
Exposure route : Dermal  
Exposure frequency : Short-term  
Limit value : 0,0016 mg/cm<sup>2</sup>  
Limit value type : DNEL worker (local)  
Exposure route : Dermal  
Exposure frequency : Long-term  
Limit value : 0,0016 mg/cm<sup>2</sup>  
Limit value type : DNEL worker (local)  
Exposure route : Inhalation  
Exposure frequency : Short-term  
Limit value : 19,6 mg/m<sup>3</sup>

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Limit value type : DNEL worker (local)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 19,6 mg/m<sup>3</sup>  
Limit value type : DNEL worker (systemic)  
Exposure route : Dermal  
Exposure frequency : Short-term  
Limit value : 5,6 mg/kg  
Assessment factor : 1 D  
Limit value type : DNEL worker (systemic)  
Exposure route : Dermal  
Exposure frequency : Long-term  
Limit value : 5,6 mg/kg  
Assessment factor : 1 D  
Limit value type : DNEL worker (systemic)  
Exposure route : Inhalation  
Exposure frequency : Short-term  
Limit value : 19,6 mg/m<sup>3</sup>  
Limit value type : DNEL worker (systemic)  
Exposure route : Inhalation  
Exposure frequency : Long-term  
Limit value : 19,6 mg/m<sup>3</sup>

## PNEC

2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; CAS No. : 1675-54-3

Limit value type : PNEC (Aquatic, freshwater)  
Exposure route : Water (Including sewage plant)  
Limit value : 0,006 mg/l  
Limit value type : PNEC (Aquatic, marine water)  
Exposure route : Water (Including sewage plant)  
Limit value : 0,001 mg/l  
Limit value type : PNEC (Sediment, freshwater)  
Exposure route : Water (Including sewage plant)  
Limit value : 0,341 mg/kg  
Limit value type : PNEC (Sediment, marine water)  
Exposure route : Water (Including sewage plant)  
Limit value : 0,034 mg/kg  
Limit value type : PNEC (Soil)  
Exposure route : Soil  
Limit value : 0,065 mg/kg dw  
Limit value type : PNEC (Secondary poisoning)  
Limit value : 11 mg/kg food  
Limit value type : PNEC (Sewage treatment plant)  
Exposure route : Water (Including sewage plant)  
Limit value : 10 mg/l

P-TERT-BUTYLPHENYL-1-(2,3-EPOXY)PROPYLETHER ; CAS No. : 3101-60-8

Limit value type : PNEC (Aquatic, freshwater)  
Exposure route : Water (Including sewage plant)  
Limit value : 0,0075 mg/l  
Limit value type : PNEC Intermittierende Einleitung  
Exposure route : Water (Including sewage plant)  
Limit value : 0,075 mg/l  
Limit value type : PNEC (Aquatic, marine water)  
Exposure route : Water (Including sewage plant)  
Limit value : 0,00075 mg/l  
Limit value type : PNEC (Sediment, freshwater)

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Exposure route : Soil  
Limit value : 33,54 mg/kg  
Limit value type : PNEC (Sediment, marine water)  
Exposure route : Soil  
Limit value : 3,354 mg/kg  
Limit value type : PNEC (Soil)  
Exposure route : Air  
Limit value : 11,4 mg/kg dw  
Limit value type : PNEC (Sewage treatment plant)  
Exposure route : Water (Including sewage plant)  
Limit value : 100 mg/l

## 8.2 Exposure controls

### Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.  
Observe data available of section 7.

### Personal protection equipment

#### Eye/face protection

Use tightly fitting safety glasses.

#### Skin protection

##### Hand protection

At use as agreed a protective gloves from nitrile rubber, tested according to EN 374, with a material thickness 0,38 mm has to be used. Notes of the manufacturer have to be taken into account. Penetration time of the glove material: > = 8 h.

By longer or repeated contact the penetration times can be considerably shorter. The protective gloves should be replaced after the first wear out or a damage of the gloves. Gloves of cotton should be used under the gloves of polychloropren or nitrile rubber. After washing hands replace lost skin fat by fat containing skin creams.

##### Body protection

Using protective clothing.

#### Respiratory protection

Breathing protection equipment is not required in good ventilated places. Use combination filter A1-P2 in unclear conditions and in confined spaces.  
Do not inhale the vapour.

### General information

Avoid contact with eyes and skin. Immediately remove all contaminated clothing. Do not eat or drink during work - no smoking. Wash hands before breaks and after work. Ensure a good ventilation in room and working area. Do not breathe vapour.

### Environmental exposure controls

The product should not reach waters and the ground. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state :** Liquid.

**Colour :** conformable to product designation.

#### Odour

Poor, characteristic.

#### Safety characteristics

**Melting point/freezing point :** ( 1013 hPa )

No data available

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<b>Initial boiling point and boiling range :</b>	( 1013 hPa )	>	200	°C
<b>Decomposition temperature :</b>	( 1013 hPa )		No data available	
<b>Flash point :</b>			135	°C
<b>Auto-ignition temperature :</b>		>	290	°C
<b>Lower explosion limit :</b>			No data available	
<b>Upper explosion limit :</b>			No data available	
<b>Vapour pressure :</b>	( 50 °C )		No data available	
<b>Density :</b>	( 20 °C )	approx.	1,13	g/cm <sup>3</sup>
<b>Solvent separation test :</b>	( 20 °C )		not applicable	
<b>Water solubility :</b>	( 20 °C )		practically insoluble	
<b>pH :</b>			not applicable	
<b>log P O/W :</b>			No data available	
<b>Flow time :</b>	( 20 °C )		No data available	DIN-cup 4 mm
<b>Viscosity :</b>	( 20 °C )		1450 - 1900	mPa*s
<b>Kinematic viscosity :</b>	( 40 °C )		No data available	
<b>Relative vapour density :</b>	( 20 °C )		No data available	
<b>VOC-value :</b>		max.	9	g/l
<b>Flammable liquids :</b>	The product is ignitable.			
<b>Particle Characteristics :</b>	not applicable			

## 9.2 Other information

The mentioned VOC value refers to the mixture of the product, incl. harder, ready for use. Other physical and chemical data have not been determined.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangers connected by a possible reactivity of the product are known to proper handling and storage.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7).

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known if stored and handled the product correctly.  
Exothermic polymerization.  
Heavy reactions with bases and other organic substances like alcohols and amines.

### 10.4 Conditions to avoid

Keep away from frost, heat and direct sunlight.

### 10.5 Incompatible materials

No dangerous reaction known.

### 10.6 Hazardous decomposition products

No dangerous decomposition product are known if stored and handled correctly. When exposed to high temperatures or in case of fire hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen, may produced.

## SECTION 11: Toxicological information

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

#### Acute toxicity

- Acute toxicity:
- Acute oral toxicity: No data available;
  - Acute dermal toxicity: No data available;
  - Acute inhalation toxicity: No data available.

#### Acute oral toxicity

Parameter : ATEmix calculated



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Exposure route : Oral  
Effective dose : not relevant  
Parameter : LD50 ( 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; CAS No. : 1675-54-3 )

Exposure route : Oral  
Species : Rat  
Effective dose : > 5000 mg/kg  
Parameter : LD50 ( P-TERT-BUTYLPHENYL-1-(2,3-EPOXY)PROPYLETHER ; CAS No. : 3101-60-8 )

Exposure route : Oral  
Species : Rat  
Effective dose : > 5000 mg/kg  
Parameter : LD50 ( REACTION MASS OF 2,2'-[METHYLENEBIS(4,1-PHENYLENEOXY METHYLENE)]DIOXIRANE AND 2-{{2-[4-(OXIRAN-2-YLMETHOXY) BENZYL]PHENOXY}METHYL)OXIRANE AND 2,2'-[METHYLENEBIS(2,1-PHENYLENEOXYMETHYLENE)]DIOXIRAN ; CAS No. : 9003-36-5 )

Exposure route : Oral  
Species : Rat  
Effective dose : > 9999 mg/kg

## Acute dermal toxicity

Parameter : ATEmix calculated  
Exposure route : Dermal  
Effective dose : not relevant  
Parameter : LD50 ( 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; CAS No. : 1675-54-3 )

Exposure route : Dermal  
Species : Rabbit  
Effective dose : > 5000 mg/kg  
Parameter : LD50 ( REACTION MASS OF 2,2'-[METHYLENEBIS(4,1-PHENYLENEOXY METHYLENE)]DIOXIRANE AND 2-{{2-[4-(OXIRAN-2-YLMETHOXY) BENZYL]PHENOXY}METHYL)OXIRANE AND 2,2'-[METHYLENEBIS(2,1-PHENYLENEOXYMETHYLENE)]DIOXIRAN ; CAS No. : 9003-36-5 )

Exposure route : Dermal  
Species : Rabbit  
Effective dose : > 2000 mg/kg  
Parameter : LD50 ( P-TERT-BUTYLPHENYL-1-(2,3-EPOXY)PROPYLETHER ; CAS No. : 3101-60-8 )

Exposure route : Dermal  
Species : Rat  
Effective dose : > 2000 mg/kg

## Acute inhalation toxicity

Parameter : ATEmix calculated  
Exposure route : Inhalation (vapour)  
Effective dose : not relevant  
Parameter : LC50 ( P-TERT-BUTYLPHENYL-1-(2,3-EPOXY)PROPYLETHER ; CAS No. : 3101-60-8 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : 3466 mg/l  
Exposure time : 4 h

## Corrosion

Irritation:  
- Skin contact: Skin irritation.  
- Eye contact: Causes serious eye irritation.

## Respiratory or skin sensitisation

The product is labeled as skin sensitizing.

## CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

The product is not classified as human germ cell mutagenic, carcinogenic or human reproductive toxic (CMR effects).

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## STOT-single exposure

No risk expected.

## STOT-repeated exposure

No risk expected.

## Aspiration hazard

No risk expected.

## 11.2 Information on other hazards

### Endocrine disrupting properties

The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605.

### Other adverse effects

This product is unlikely to harm health, given normal and proper handling and hygienic precautions.

### Additional information

The product is classified in toxicological terms on the basis of the results of the calculation procedure outlined within the Regulation (EC) No 1272/2008 (CLP-Regulation), listed in sections 2 and 3.

At proper dealing and use as agreed the product does not cause any effects bad for health after our experiences and the information submitted to us.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity

##### Acute (short-term) fish toxicity

Parameter : LC50 ( 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; CAS No. : 1675-54-3 )  
Species : Acute (short-term) fish toxicity  
Evaluation parameter : rainbow trout  
Effective dose : 2 mg/l  
Exposure time : 96 h

##### Acute (short-term) toxicity to crustacea

Parameter : EC50 ( 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; CAS No. : 1675-54-3 )  
Species : Daphnia magna (Big water flea)  
Effective dose : 1,8 mg/l  
Exposure time : 48 h

##### Acute (short-term) toxicity to algae and cyanobacteria

Parameter : EC50 ( 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BIS OXIRANE ; CAS No. : 1675-54-3 )  
Species : Acute (short-term) algae toxicity  
Effective dose : 11 mg/l  
Exposure time : 72 h

### 12.2 Persistence and degradability

These are not data available about the potential of the product concerning his persistency and degradability.

### 12.3 Bioaccumulative potential

These are not data available about the bio accumulation potential of the product.

### 12.4 Mobility in soil

These are not datas available about the potential of the product concerning his mobility in the ground.  
A penetrating into soil, waters and sewage system should be prevented.

### 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

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The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605.

## 12.7 Other adverse effects

Toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

## 12.8 Additional ecotoxicological information

The classification of the product is based on summation of classified components according to the Regulation (EC) No 1272/2008 (CLP-Regulation). See details in sections 2 and 3.  
Avoid exposing into ground, waterways and drainage.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Directive 2008/98/EC (Waste Framework Directive)

##### Before intended use

Dispose of contents/container to approved disposal company or local collection according to the local regulations. Packaging with not dry uped residues have to dropped at official collecting sites. Packaging with dry uped residues can be disposed together with household garbage or building site garbage. Do not empty into waters or drains.

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

For the product:

Disposal-definition No.: 08 01 11\* - Paint and varnish waste which contains organic solvents or other dangerous substances.

##### After intended use

Only empty packaging can be transfered to recycling. Uncleaned packaging must be disposed of in the same manner as the medium.

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

For the uncleaned packaging:

Disposal-definition No.: 15 01 10 \* packings which contain dangerous substances or are polluted by dangerous substances.

## SECTION 14: Transport information

### 14.1 UN number

UN 3082

### 14.2 UN proper shipping name

#### Land transport (ADR/RID)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( EPOXY RESIN )

#### Sea transport (IMDG)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( EPOXY RESIN )

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

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( EPOXY RESIN )

### 14.3 Transport hazard class(es)

#### Land transport (ADR/RID)

**Class(es) :** 9  
**Classification code :** M6  
**Hazard identification number (Kemler No.) :** 90  
**Tunnel restriction code :** -  
**Special provisions :** LQ 5 I · E 1 · ADR : - (SP 375 <= 5 l/kg)  
**Hazard label(s) :** 9 / N

#### Sea transport (IMDG)

**Class(es) :** 9  
**EmS-No. :** F-A / S-F

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Special provisions : LQ 5 I · E 1 · IMDG : - (SP 2.10.2.7 <= 5 l/kg)  
Hazard label(s) : 9 / N  
Air transport (ICAO-TI / IATA-DGR)  
Class(es) : 9  
Special provisions : E 1 · IATA : - (SP A197 <= 5 l/kg)  
Hazard label(s) : 9 / N

## 14.4 Packing group

III

## 14.5 Environmental hazards

Land transport (ADR/RID) : Yes  
Sea transport (IMDG) : Yes (P)  
Air transport (ICAO-TI / IATA-DGR) : Yes

## 14.6 Special precautions for user

None

## 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant because the product in type of delivery does not transport in bulks according to the International Maritime Organization (IMO) instruments.

## 14.8 Additional information

The product when carried in packaging of max. 5 l or 5 kg, are not subject to any other provisions of ADR according to the amendment 375.

According to the transport regulations the product is labeling with the label 9 as also with the symbol "Fish and tree" and in packages > 5 ltr or > 5 kg.

## SECTION 15: Regulatory information

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

#### EU legislation

##### Authorisations and/or restrictions on use

##### Restrictions on use

##### Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions):

Use restriction according to REACH annex XVII, no. : 3

##### Other regulations (EU)

##### Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

Product sub-category and VOC limiting values in accordance with appendix II, letter A of the guideline:

Category j, type WB;

VOC limiting value of the category for 2010: 140 g/l.

This product contains max. 9 g/l VOC.

The mentioned VOC value refers to the mixture of the product ready for use of tribe varnish and harder.

##### National regulations

##### Water hazard class

Classification according to AwSV - Class : 2 (Obviously hazardous to water)

##### Additional information

The product is classified as a solid substance according to the criteria of the Penetrometer test (ADR, part 2, section 2.3.4) and also fulfils the criteria for solid substances according to the TRwS 779 number 2.1.1.

Maternity regulations and Young Persons Employment Act are to take into account.

### 15.2 Chemical Safety Assessment

A chemical safety assessments was not carried out.

## SECTION 16: Other information

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## according to Regulation (EC) No. 1907/2006 (REACH)



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### 16.1 Indication of changes

02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] - Hazard components for labelling · 15. Water hazard class

### 16.2 Abbreviations and acronyms

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route)  
AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany) AOX: Adsorbable Organic halogen compounds  
ATEmix: Calculated acute toxicity estimate of mixture  
BCF: Bio-Concentration Factor  
CAS: Chemical Abstract Service  
CLP: Classification, Labelling and Packaging  
CMR: Substances classified as Carcinogenic, Mutagenic or toxic for Reproduction  
CSR: Chemical Safety Report  
DNEL: Derived No Effect Level  
EC: European Commission  
EC50: Effective Concentration 50%  
ECHA: European Chemical Agency  
EEC: European Economic Community  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
EWC: European Waste Catalogue  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IC50: Inhibition Concentration 50%  
IMDG Code: International Maritime Dangerous Goods Code  
IMO: International Maritime Organization  
LC50: Lethal concentration 50%  
LD50: Lethal Dose 50%  
LOAEL: Lowest Observed Adverse Effect Level  
LOEL: Lowest observable effect level  
MAK: Treshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG)  
MARPOL: Convention for the Prevention of Marine Pollution from Ships  
MVZ: molar ratio  
n.a.: Not applicable  
n.d.: Not determined  
n.r.: Not relevant  
NLP: No Longer Polymers  
NOAEC: No Observed Adverse Effect Concentration  
NOAEL: No Observed Adverse Effect Level  
NOEC: No Observed Effect Concentration  
NOEL: No Observed Effect Level  
OEL: Occupational Exposure Limit  
PBT: Persistent, bioaccumulative, toxic  
PNEC: Predicted No Effect Concentration  
RCP: Reciprocal calculation procedure  
REACH: Registration, Evaluation and Authorization of Chemical  
RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer)  
STEL: Short-term Exposure Limit  
SVHC: Substance of Very High Concern  
TLV - TWA: Threshold Limit Value - Time Weighed Average  
VOC: Volatile Organic Compounds  
vPvB: Very persistent, very bioaccumulative.

### 16.3 Key literature references and sources for data

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None

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

The evaluation of hazard information of the product was carried out in accordance to Annex I of the REGULATION (EC) No 1272/2008 (CLP Regulation).

**16.5 Relevant H- and EUH-phrases (Number and full text)**

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.

**16.6 Training advice**

None

**16.7 Additional information**

None

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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