



23.01.2023

Kit components

Product code	Description
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87007	2K Epoxy Panel Bond 220ml
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Components:

87007A	2K Epoxy Panel Adhesive 220 ml Part A
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87007B	2K Epoxy Panel Adhesive 220 ml Part B
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Safety data sheet according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 3 (replaces version 2)

Revision: 12.01.2023

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

1.1 Product identifier

Trade name: **2K Epoxy Panel Adhesive 220 ml Part A**

Article number: 87007A

1.2 Relevant identified uses of the substance or mixture and uses advised against
FOR PROFESSIONAL AND INDUSTRIAL USE ONLY

Application of the substance / the mixture Epoxy resin adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

KENT (United Kingdom) Ltd

Forsyth House

Pitreavie Drive

Pitreavie Business Park

Dunfermline

Fife

KY11 8US

Tel: +44 01383 723344 / 0800 136925 Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

Fax: +44 1383 620079

SDS@kenteurope.com

1.4 Emergency telephone number:

Tel: +44 01383 723344 During normal office hours - Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



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

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS05



GHS07

Signal word **Danger**

Hazard-determining components of labelling:

3,3'-Oxybis(ethyleneoxy)bis(propylamine)

2-methylpentane-1,5-diamine

2-ethyl-4-methylimidazole

Bis [(dimethylamino)methyl] phenol

Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

Precautionary statements

P261

Avoid breathing vapours.

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- P280 Wear protective gloves / eye protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

- **Description:** Mixture of the substances listed below with harmless additions.

Dangerous components:

CAS: 4246-51-9 EINECS: 224-207-2	3,3'-Oxybis(ethyleneoxy)bis(propylamine) ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Skin Sens. 1, H317	5-15%
CAS: 90-72-2 EINECS: 202-013-9	2,4,6-tris(dimethylaminomethyl)phenol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	5-10%
CAS: 931-36-2 EINECS: 213-234-5	2-ethyl-4-methylimidazole ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1B, H317	<3%
CAS: 15520-10-2 EINECS: 239-556-6	2-methylpentane-1,5-diamine ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; STOT SE 3, H335	<3%
CAS: 71074-89-0 EINECS: 275-162-0	Bis [(dimethylamino)methyl] phenol ⚠ Skin Corr. 1B, H314	<3%
CAS: 822-36-6 EINECS: 212-497-3	4-methylimidazole ⚠ Acute Tox. 3, H311; ⚠ Carc. 2, H351; Repr. 2, H361f; ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; STOT SE 3, H335	<0.5%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- **General information** Instantly remove any clothing soiled by the product.
- **After inhalation**
Supply fresh air and call for doctor for safety reasons.
In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact**
If skin irritation continues, consult a doctor.
Instantly rinse with water.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**
Rinse out mouth.
Drink copious amounts of water and provide fresh air. Instantly call for doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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 agents** Use fire fighting measures that suit the environment.

5.2 Special hazards arising from the substance or mixture

- Formation of toxic gases is possible during heating or in case of fire.
- Carbon monoxide and carbon dioxide
- Nitrogen oxides (NOx)
- Ammonia
- Formaldehyde

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Safety data sheet

according to 1907/2006/EC, Article 31

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Trade name: 2K Epoxy Panel Adhesive 220 ml Part A

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5.3 Advice for firefighters

Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear self-contained breathing apparatus.

Additional information

Cool endangered containers with water spray jet.

Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with the eyes and skin.

Information about protection against explosions and fires: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers: Store in cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Store in cool, dry conditions in well sealed containers.

Store container in a well ventilated position.

Protect from heat and direct sunlight.

15-32°C

Storage class 8 B

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

PNECs

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

PNEC 0.084 mg/l (Aqua (freshwater))

0.84 mg/l (Aqua (intermittent))

0.008 mg/l (Aqua (marine water))

0.2 mg/l (Sewage treatment plant)

Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls

Appropriate engineering controls No further data; see item 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing

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Wash hands during breaks and at the end of the work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

Short term filter device:

Filter A (EN 14387)

· **Hand protection**



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Wear suitable gloves tested to EN 374

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Value for the permeation: Level 6 > 480 minutes

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Safety glasses (EN 166)

Tightly sealed safety glasses. (EN 166)

· **Body protection:** Protective work clothing (EN-13034/6)

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Grey

· **Odour:**

Light

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Not determined

· **Boiling point or initial boiling point and boiling range**

133 °C

· **Flammability**

Not applicable.

· **Lower and upper explosion limit**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

93 °C (Seta closed cup)

· **Decomposition temperature:**

Not determined.

· **pH**

Mixture is non-soluble (in water).

· **Viscosity:**

· **Kinematic viscosity at 40 °C**

> 10,000 mm²/s

· **dynamic:**

Not determined.

· **Solubility**

· **Water:**

Not miscible / difficult to mix

· **Partition coefficient n-octanol/water (log value)**

Not determined.

· **Vapour pressure at 20 °C:**

< 10 hPa

· **Density and/or relative density**

· **Density**

Not determined

· **Relative density at 25 °C**

1.13

· **Vapour density**

Not determined.

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9.2 Other information**Appearance:****Form:** Fluid**Important information on protection of health and environment, and on safety.****Self-inflammability:**

Product is not selfigniting.

Explosive properties:

Product is not explosive.

Solvent content:**Organic solvents:**

NIL VOC

Change in condition**Evaporation rate**

Not determined.

Information with regard to physical hazard classes**Explosives**

Void

Flammable gases

Void

Aerosols

Void

Oxidising gases

Void

Gases under pressure

Void

Flammable liquids

Void

Flammable solids

Void

Self-reactive substances and mixtures

Void

Pyrophoric liquids

Void

Pyrophoric solids

Void

Self-heating substances and mixtures

Void

Substances and mixtures, which emit flammable gases in contact with water

Void

Oxidising liquids

Void

Oxidising solids

Void

Organic peroxides

Void

Corrosive to metals

Void

Desensitised explosives

Void

SECTION 10: Stability and reactivity**10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**10.3 Possibility of hazardous reactions** No dangerous reactions known**10.4 Conditions to avoid** Heat. Hot surfaces. Sources of ignition. Flames.**10.5 Incompatible materials:**

Acids

Strong alkalis

Peroxides

Fluorine, fluorides

Strong oxidising agents

Water / humidity

10.6 Hazardous decomposition products:

Formation of harmful gases is possible during heating or in case of fire.

Carbon monoxide and carbon dioxide

Ammonia

Formaldehyde

Nitrogen oxides (NOx)

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.**LD/LC50 values that are relevant for classification:****90-72-2 2,4,6-tris(dimethylaminomethyl)phenol**

Oral LD50 1,000 mg/kg (Rat)

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Dermal	LD50	1,280 mg/kg (Rat)
15520-10-2 2-methylpentane-1,5-diamine		
Oral	LD50	1,690 mg/kg (Rat)
Dermal	LD50	1,870 mg/kg (Rat) (OECD Test Guideline 402 GLP)
	EC20	30 (Pseudomonas Putida) (18 hour)
822-36-6 4-methylimidazole		
Oral	LD50	173 mg/kg (Rat)
Dermal	LD50	440 mg/kg (Rabbit)

- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

4246-51-9 3,3'-Oxybis(ethyleneoxy)bis(propylamine)	
EC50 (48 hr)	218.16 mg/l (Daphnia magna) (67/548/EEC, Annex V, C.2)
LC50 (96 hr)	>1,000 mg/l (Leuciscus Idus) (DIN 38412)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol	
EC50	84 mg/l (Desmodesmus subspicatus)
931-36-2 2-ethyl-4-methylimidazole	
EC50 (48 hr)	297 mg/l (Daphnia magna)
EC50 (72 hr)	124.8 mg/l (Desmodesmus subspicatus)
LC50 (96 hr)	68.1 mg/l (Leuciscus Idus)
15520-10-2 2-methylpentane-1,5-diamine	
EC50 (48 hr)	50 mg/l (Daphnia magna) (EPA-660/3-75-009)
EC50 (72 hr)	>100 mg/l (Pseudokirchneriella subcapitata) (OECD Test Guideline 201)
LC50 (48 hr)	130 mg/l (Leuciscus Idus) (OECD Test Guideline 203)
NOEC (72 hr)	10 mg/l (Pseudokirchneriella subcapitata) (OECD Test Guideline 201)
NOEC (21 days)	4.16 mg/l (Daphnia magna) (OECD Test Guideline 211)
822-36-6 4-methylimidazole	
EC50 (96 hr)	34 mg/l (Leuciscus Idus)
EC50 (48 hr)	180 mg/l (Daphnia magna)
EC50 (72 hr)	2 mg/l (Desmodesmus subspicatus)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
- Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
- Must not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN number or ID number

· **ADR, IMDG, IATA** UN3267

· 14.2 UN proper shipping name

· **ADR** 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3,3'-Oxybis(ethyleneoxy)bis(propylamine), Bis [(dimethylamino)methyl] phenol)

· **IMDG, IATA** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3,3'-Oxybis(ethyleneoxy)bis(propylamine), Bis [(dimethylamino)methyl] phenol)

· 14.3 Transport hazard class(es)

· **ADR**



· **Class** 8 (C7) Corrosive substances.

· **Label** 8

· **IMDG, IATA**



· **Class** 8 Corrosive substances.

· **Label** 8

· 14.4 Packing group

· **ADR, IMDG, IATA** III

· 14.5 Environmental hazards:

Not applicable.

· 14.6 Special precautions for user

· **Warning:** Corrosive substances.

· **Kemler Number:** 80

· **EMS Number:** F-A, S-B

· **Segregation groups:** Alkalis

· **Stowage Category:** B

· **Stowage Code:** SW2 Clear of living quarters.

· **Segregation Code:** SG35 Stow "separated from" SGG1-acids

· 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

· Transport/Additional information:

· **ADR**

· **Limited quantities (LQ)** 5L

· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· **Transport category** 3

· **Tunnel restriction code** E

· **IMDG**

· **Limited quantities (LQ)** 0

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Trade name: 2K Epoxy Panel Adhesive 220 ml Part A

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· Excepted quantities (EQ)

 Code: E0
 Not permitted as Excepted Quantity

· UN "Model Regulation":

UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE), BIS [(DIMETHYLAMINO)METHYL] PHENOL), 8, III

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
· Directive 2012/18/EU
· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations
· Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H361f Suspected of damaging fertility.

· Department issuing data specification sheet: Environment protection department

· Abbreviations and acronyms:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· Data compared to the previous version altered. *

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

1.1 Product identifier

Trade name: **2K Epoxy Panel Adhesive 220 ml Part B**

Article number: 87007B

1.2 Relevant identified uses of the substance or mixture and uses advised against
FOR PROFESSIONAL AND INDUSTRIAL USE ONLY

Application of the substance / the mixture Epoxy resin adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

KENT (United Kingdom) Ltd

Forsyth House

Pitreavie Drive

Pitreavie Business Park

Dunfermline

Fife

KY11 8US

Tel: +44 01383 723344 / 0800 136925 Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

Fax: +44 1383 620079

SDS@kent europe.com

1.4 Emergency telephone number:

Tel: +44 01383 723344 During normal office hours - Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS07



GHS09

Signal word Warning

Hazard-determining components of labelling:

Glycidyl Ethers of Bisphenol A resins

1,4-Bis [(2,3-epoxypropoxy)methyl] cyclohexane

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements

- P261 Avoid breathing vapours.
 P280 Wear protective gloves / eye protection.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

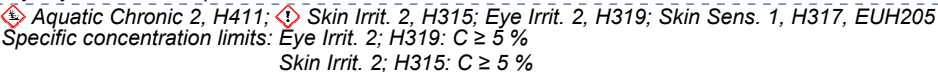
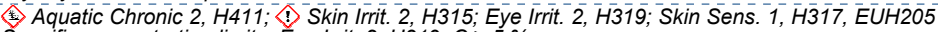

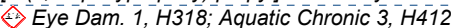
2.3 Other hazards
Results of PBT and vPvB assessment

- PBT:** Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients
3.2 Mixtures

- Description:** Mixture of the substances listed below with harmless additions.

Dangerous components:

CAS: 25068-38-6 NLP: 500-033-5 Reg.nr.: 01-2119456619-26	Glycidyl Ethers of Bisphenol A resins  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317, EUH205 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	50-75%
CAS: 14228-73-0 EINECS: 238-098-4	1,4-Bis [(2,3-epoxypropoxy)methyl] cyclohexane  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	5-15%
CAS: 2530-83-8 EINECS: 219-784-2	[3-(2,3-epoxypropoxy) propyl] trimethoxysilane  Eye Dam. 1, H318; Aquatic Chronic 3, H412	<3%

- Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures
4.1 Description of first aid measures
After inhalation

- Supply fresh air and call for doctor for safety reasons.
 In case of unconsciousness bring patient into stable side position for transport.

- After skin contact** If skin irritation continues, consult a doctor.

- After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

- After swallowing** Rinse out mouth.

- 4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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 agents** CO₂, extinguishing powder or water haze. Fight larger fires with water haze or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

Carbon monoxide and carbon dioxide

Formaldehyde

Hydrogen

Phenols

5.3 Advice for firefighters
Protective equipment:

- Do not inhale explosion gases or combustion gases.
 Wear self-contained breathing apparatus.
 Wear full protective suit.

Additional information

- Cool endangered containers with water spray jet.
 Collect contaminated fire fighting water separately. It must not enter drains.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** *Not required.*
- **6.2 Environmental precautions:**
Do not allow to enter drainage system, surface or ground water.
Inform respective authorities in case product reaches water or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Open and handle container with care.
Ensure good ventilation/exhaustion at the workplace.
Avoid contact with the eyes and skin.
- **Information about protection against explosions and fires:** *Protect from heat.*
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** *Store in cool location.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
Store container in a well ventilated position.
15-32°C
- **Storage class** 10
- **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

25068-38-6 Glycidyl Ethers of Bisphenol A resins

Dermal	Acute systemic effect	8.33 mg/kg bw/day (Worker)
	Long term systemic effect	8.33 mg/kg/dy (Worker)
Inhalative	Long term systemic effect	12.25 mg/m ³ (Worker)
	Acute systemic effect	12.25 mg/m ³ (Worker)

· PNECs

25068-38-6 Glycidyl Ethers of Bisphenol A resins

PNEC	0.006 mg/l (Aqua (freshwater))
	0.018 mg/l (Aqua (intermittent))
	0.0006 mg/l (Aqua (marine water))
	0.996 mg/kg (Freshwater sediment)
	0.0996 mg/kg (Marine water sediment)
	10 mg/l (Sewage treatment plant)
	0.192 mg/kg (Soil)

- **Additional information:** *The lists that were valid during the compilation were used as basis.*

· 8.2 Exposure controls

- **Appropriate engineering controls** *No further data; see item 7.*
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.

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- Take off immediately all contaminated clothing
- Wash hands during breaks and at the end of the work.
- Do not inhale gases / fumes / aerosols.
- Avoid contact with the eyes and skin.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Hand protection**



Protective gloves.

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Wear suitable gloves tested to EN 374

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

Value for the permeation: Level 6 > 480 minutes

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection**



Safety glasses (EN 166)

Tightly sealed safety glasses. (EN 166)

- **Body protection:** Protective work clothing (EN-13034/6)

SECTION 9: Physical and chemical properties

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

- **General Information**

- **Physical state**

Fluid

- **Colour:**

According to product specification

- **Odour:**

Light

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Not determined

- **Boiling point or initial boiling point and boiling range**

>150 °C

- **Flammability**

Not applicable.

- **Lower and upper explosion limit**

- **Lower:**

Not determined.

- **Upper:**

Not determined.

- **Flash point:**

99 °C (Seta closed cup)

- **Decomposition temperature:**

Not determined.

- **pH**

Mixture is non-soluble (in water).

- **Viscosity:**

- **Kinematic viscosity at 40 °C**

>10.000 mm²/s

- **dynamic:**

Not determined.

- **Solubility**

- **Water:**

Not miscible / difficult to mix

- **Partition coefficient n-octanol/water (log value)**

Not determined.

- **Vapour pressure at 20 °C:**

<0.1 hPa

- **Density and/or relative density**

- **Density**

Not determined

- **Relative density at 20 °C**

1.089

- **Vapour density**

Not determined.

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9.2 Other information

Appearance:

Form:

Fluid

Important information on protection of health and environment, and on safety.

Self-inflammability:

Product is not selfigniting.

Explosive properties:

Product is not explosive.

Solvent content:

Organic solvents:

NIL VOC

Change in condition

Evaporation rate

Not determined.

Information with regard to physical hazard classes

Explosives

Void

Flammable gases

Void

Aerosols

Void

Oxidising gases

Void

Gases under pressure

Void

Flammable liquids

Void

Flammable solids

Void

Self-reactive substances and mixtures

Void

Pyrophoric liquids

Void

Pyrophoric solids

Void

Self-heating substances and mixtures

Void

Substances and mixtures, which emit flammable gases in contact with water

Void

Oxidising liquids

Void

Oxidising solids

Void

Organic peroxides

Void

Corrosive to metals

Void

Desensitised explosives

Void

SECTION 10: Stability and reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions

No dangerous reactions known

10.4 Conditions to avoid

Heat. Hot surfaces. Sources of ignition. Flames.

10.5 Incompatible materials:

Water / humidity

Strong acids and oxidizing agents

Isocyanate

Amines

Alkalis

Fluorine, fluorides

Peroxides

10.6 Hazardous decomposition products:

Formation of toxic gases is possible during heating or in case of fire.

Carbon monoxide and carbon dioxide

Formaldehyde

Hydrocarbons

Hydrogen

Phenols

Silicon dioxide

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.

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LD/LC50 values that are relevant for classification:
25068-38-6 Glycidyl Ethers of Bisphenol A resins

Oral	LD50	>2,000 mg/kg (Rat) (OECD Test Guideline 420)
Dermal	LD50	>2,000 mg/kg (Rat) (OECD Test Guideline 420)

2530-83-8 [3-(2,3-epoxypropoxy) propyl] trimethoxysilane

Oral	LD50	8.025 mg/kg (Rat) (OECD Test Guideline 401)
Dermal	LD50	4,250 mg/kg (Rabbit)
Inhalative	LC50 (4 hr)	>5.3 mg/l (Rat) (OECD Test Guideline 403)

- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.

11.2 Information on other hazards
Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information
12.1 Toxicity
Aquatic toxicity:
25068-38-6 Glycidyl Ethers of Bisphenol A resins

EC50 (48 hr)	2.8 mg/l (Daphnia magna) (OECD Test Guideline 202)
EC50 (72 hr)	4.2 mg/l (Pseudokirchneriella subcapitata)
LC50 (96 hr)	1.5 mg/l (Fish) (EEC (1988) 203)
	2.7 mg/l (Oncorhynchus mykiss)
NOEC (21 days)	0.3 mg/l (Daphnia magna) (OECD Test Guideline 211)

2530-83-8 [3-(2,3-epoxypropoxy) propyl] trimethoxysilane

EC50 (96 hr)	350 mg/l (Pseudokirchneriella subcapitata)
EC50 (48 hr)	324 mg/l (Daphnia magna)
LC50 (96 hr)	55 mg/l (Cyprinus carpio)
NOEC (21 days)	100 mg/l (Daphnia magna)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**

Remark: Toxic for fish

Additional ecological information:
General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
 Do not allow product to reach ground water, water bodies or sewage system.
 Danger to drinking water if even small quantities leak into soil.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms

SECTION 13: Disposal considerations
13.1 Waste treatment methods

- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

- **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, IMDG, IATA 	<p>UN3082</p>
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA 	<p>3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Glycidyl Ethers of Bisphenol A resins)</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Glycidyl Ethers of Bisphenol A resins), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Glycidyl Ethers of Bisphenol A resins)</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR 	<p>9 (M6) Miscellaneous dangerous substances and articles.</p>
<ul style="list-style-type: none"> · Class · Label 	<p>9</p>
<ul style="list-style-type: none"> · IMDG, IATA 	<p>9 Miscellaneous dangerous substances and articles.</p>
<ul style="list-style-type: none"> · Class · Label 	<p>9</p>
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	<p>III</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA): 	<p>Product contains environmentally hazardous substances: Glycidyl Ethers of Bisphenol A resins</p> <p>No</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Kemler Number: · EMS Number: · Stowage Category 	<p>Warning: Miscellaneous dangerous substances and articles.</p> <p>90</p> <p>F-A, S-F</p> <p>A</p>
<ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	<p>Not dangerous according to the above specifications.</p>
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> · Transport category · Tunnel restriction code 	<p>3</p> <p>E</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>

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UN "Model Regulation":

 UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
 N.O.S. (GLYCIDYL ETHERS OF BISPHENOL A RESINS), 9, III

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category E2** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **National regulations**
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH205 Contains epoxy constituents. May produce an allergic reaction.

· **Department issuing data specification sheet:** Environment protection department

Abbreviations and acronyms:

- ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- DNEL: Derived No-Effect Level (UK REACH)
- PNEC: Predicted No-Effect Concentration (UK REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· **Data compared to the previous version altered.** *