

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.11.2018

Version number 6

Revision: 30.11.2018

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**Trade name: **AKEPOX 1099 Component A**

Article number: 11753 / 11751, 11754 / 11755, 12753 / 12754, 12752

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

No further relevant information available.

Application of the substance / the mixture

Epoxy resin

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
 Lechstrasse 28
 D 90451 Nürnberg

Tel. +49(0)911-642960
 Fax. +49(0)911-644456
 e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
 Tel. +49(0)911-64296-59
 Reachable during the following office hours:
 Monday – Thursday from 07:30 a.m. to 16:30 p.m.
 Friday from 07:30 a.m. to 13:30 p.m.
 +44 (171) 635 91 91
 National Poison Inform. Centre
 Medical Toxicology Unit
 Avalonley Road
 London SE14 5ER

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SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS09 environment

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



GHS07

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

Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS07 GHS09

Signal word

Warning

Hazard-determining components of labelling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
 2,2-bis(acryloyloxymethyl)butyl acrylate
 H315 Causes skin irritation.

Hazard statements

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· <u>Precautionary statements</u>	H319 Causes serious eye irritation.
	H317 May cause an allergic skin reaction.
	H411 Toxic to aquatic life with long lasting effects.
	P101 If medical advice is needed, have product container or label at hand.
	P102 Keep out of reach of children.
	P103 Read label before use.
	P261 Avoid breathing vapours.
	P273 Avoid release to the environment.
	P280 Wear protective gloves/protective clothing/eye protection/face protection.
	P302+P352 IF ON SKIN: Wash with plenty of water.
· <u>Additional information:</u>	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
	P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
	Contains epoxy constituents. May produce an allergic reaction.
	2.3 Other hazards
	Results of PBT and vPvB assessment
	PBT: Not applicable.
	vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8 Reg.nr.: 01-2119456619-26-0000	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) ⚠ Aquatic Chronic 2, H411 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	50-100%
CAS: 15625-89-5 EINECS: 239-701-3 Index number: 607-111-00-9 Reg.nr.: 01-2119489896-11-0001	2,2-bis(acryloyloxymethyl)butyl acrylate ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	<12.5%
CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38-0000	Benzyl alcohol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	1-5%
CAS: 2530-83-8 EINECS: 219-784-2 Reg.nr.: 01-2119513212-58	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane ⚠ Eye Dam. 1, H318	1-5%
CAS: 108-83-8 EINECS: 203-620-1 Index number: 606-005-00-X Reg.nr.: 01-2119474441-41	2,6-dimethylheptan-4-one ⚠ Flam. Liq. 3, H226 ⚠ STOT SE 3, H335	<1%

· 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: Take affected persons out into the fresh air.
Position and transport stably in side position.
Immediately remove any clothing soiled by the product.

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- After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** Allergic reactions
The sensitizing effect of epoxide based resins is mainly caused by the concentration of epoxy resin polymers with a specific molecular weight ≤ 300 . The observed allergic dermal and respiratory appearances should be treated symptomatically in dependence of the severity. An epoxy resin based allergic disease belongs to a cell mediated (interaction of lymphocytes) type IV allergy. Bisphenol-A based resins: Inhalation, swallowing or dermal incorporation may cause health damage. Irritates respiratory tract, digestion system, eyes and skin: e.g., cough, dyspnea, lacrimation, burning. May cause health interferences such as dermal changes, renal, hepatic damage, and blood count changes. May provoke skin allergies. Sensitized users can react towards very low concentrations of Bisphenol-A-Epichlorhydrine and should avoid any further contact with this chemical.
- Information for doctor:
- Hazards Skin contact with polyester and epoxy resin solutions as ingredient of the product should be avoided due to risks of skin irritations or allergic skin appearances. If occasional hand contact can not be avoided, protection gloves, proper protection ointments and protective agents generating a protective layer on the skin were applied.
- **4.3 Indication of any immediate medical attention and special treatment needed** If swallowed, gastric irrigation with added, activated carbon.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- **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 (CO)
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- Protective equipment: Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
- Additional information Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.

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- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ 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).
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 disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Use only in well ventilated areas.
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
Prevent any seepage into the ground.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Store receptacle in a well ventilated area.
Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

108-83-8 2,6-dimethylheptan-4-oneWEL Long-term value: 148 mg/m³, 25 ppm· **DNELs****25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)**

Oral	DNEL (Kurzzeit-akut)	0.75 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	0.75 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	8.33 mg/kg bw/day (ARB)
		3.571 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	8.33 mg/kg bw/day (ARB)
Inhalative		3.571 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	12.25 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	12.25 mg/m ³ Air (ARB)

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15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate

Oral	DNEL (Langzeit-wiederholt)	1.39 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	0.8 mg/kg bw/day (ARB)
		0.48 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	16.2 mg/m³ Air (ARB)
		4.9 mg/m³ Air (BEV)

100-51-6 Benzyl alcohol

Oral	DNEL (Kurzzeit-akut)	25 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	5 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	47 mg/kg bw/day (ARB)
		28.5 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	9.5 mg/kg bw/day (ARB)
Inhalative		5.7 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	450 mg/m³ Air (ARB)
		40.55 mg/m³ Air (BEV)
		22 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	8.11 mg/m³ Air (BEV)

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

Oral	DNEL (Langzeit-wiederholt)	12.5 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	21 mg/kg bw/day (ARB)
		12.5 mg/kg bw/day (BEV)
		21 mg/kg bw/day (ARB)
Inhalative		12.5 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	147 mg/m³ Air (ARB)
		43.5 mg/m³ Air (BEV)
		147 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	43.5 mg/m³ Air (BEV)

108-83-8 2,6-dimethylheptan-4-one

Oral	DNEL (Langzeit-wiederholt)	7.14 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	80 mg/kg bw/day (ARB)
		28.5 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	290 mg/m³ Air (ARB)
		145 mg/m³ Air (BEV)
		479 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	171 mg/m³ Air (BEV)

· PNECs**25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)**

PNEC (wässrig)	10 mg/l (KA)
	0.0006 mg/l (MW)
	0.006 mg/l (SW)
	0.018 mg/l (WAS)
PNEC (fest)	0.196 mg/kg Trockengew (BO)
	0.0996 mg/kg Trockengew (MWS)
	0.996 mg/kg Trockengew (SWS)

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15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate

PNEC (wässrig)	6.25 mg/l (KA) 0.000147 mg/l (MW) 0.00147 mg/l (SW)
PNEC (fest)	0.0043 mg/kg Trockengew (BO) 0.00062 mg/kg Trockengew (MWS) 0.0062 mg/kg Trockengew (SWS)

100-51-6 Benzyl alcohol

PNEC (wässrig)	39 mg/l (KA) 0.1 mg/l (MW) 1 mg/l (SW) 2.3 mg/l (WAS)
PNEC (fest)	0.456 mg/kg Trockengew (BO) 0.527 mg/kg Trockengew (MWS) 5.27 mg/kg Trockengew (SWS)

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

PNEC (wässrig)	>10 mg/l (KA) 0.1 mg/l (MW) 1 mg/l (SW) 1 mg/l (WAS)
PNEC (fest)	0.13 mg/kg Trockengew (BO) 0.79 mg/kg Trockengew (SWS)

108-83-8 2,6-dimethylheptan-4-one

PNEC (wässrig)	2.55 mg/l (KA) 0.003 mg/l (MW) 0.03 mg/l (SW) 0.3 mg/l (WAS)
PNEC (fest)	0.0746 mg/kg Trockengew (BO) 0.046 mg/kg Trockengew (MWS) 0.46 mg/kg Trockengew (SWS)

· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· Personal protective equipment:

· General protective and hygienic measures:

Avoid close or long term contact with the skin.
Do not eat, drink, smoke or sniff while working.
Use skin protection cream for skin protection.
Clean skin thoroughly immediately after handling the product.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.

· Respiratory protection:

Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Not necessary if room is well-ventilated.
Short term filter device:

Filter A/P2

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:

Preventive skin protection by use of skin-protecting agents is recommended.

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After use of gloves apply skin-cleaning agents and skin cosmetics.
 Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
 STOKO EMULSION (<http://www.stoko.com>)
 Skin protection recommendation for skin cleaning after product handling:
 FRAPANTOL (<http://www.stoko.com>)
 SOLOPOL (<http://www.stoko.com>)
 Skin protection agent recommendation for skin aftercare:
 STOKO VITAN (<http://www.stoko.com>)
 The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.
 This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).



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

Butyl rubber, BR
 Fluorocarbon rubber (Viton)
 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 $\leq$ 5, 480 min

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

· For the permanent contact gloves made of the following materials are suitable:

Fluorocarbon rubber (Viton)
 Vitoject (KCL, Art_No. 890)
 Butyl rubber, BR
 Butoject (KCL, Art_No. 897, 898)
 Nitrile rubber, NBR
 Camatril (KCL, Art_No. 730, 731, 732, 733)

· As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR
 Camatril (KCL, 730, 731, 732, 733)

· Not suitable are gloves made of the following materials:

Leather gloves
 Strong material gloves

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· Eye protection:

Tightly sealed goggles

· Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

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

· General Information

· Appearance:

Form:	Fluid
Colour:	Yellowish
Odour:	Characteristic

· <u>pH-value:</u>	Not applicable
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· Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	201 °C

· <u>Flash point:</u>	109 °C
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· <u>Ignition temperature:</u>	385 °C
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· <u>Auto-ignition temperature:</u>	Product is not selfigniting.
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· <u>Explosive properties:</u>	Product does not present an explosion hazard.
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· <u>Vapour pressure at 20 °C:</u>	2 hPa
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· <u>Density at 20 °C:</u>	1.12 g/cm ³
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· <u>Solubility in / Miscibility with water:</u>	Not miscible or difficult to mix.
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· Viscosity:

Dynamic at 20 °C:	900 mPas
Kinematic:	Not determined.

· Solvent content:

Organic solvents:	0.0 %
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· 9.2 Other information	No further relevant information available.
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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 and stored according to specifications.

· **10.3 Possibility of hazardous reactions**

Exothermic polymerisation.
 Reacts with strong alkali.
 Reacts with strong acids.
 Violent reactions with -NHx, -OH and -SH- groups.

· **10.4 Conditions to avoid**

No further relevant information available.

· **10.5 Incompatible materials:**

No further relevant information available.

· **10.6 Hazardous decomposition products:**

Carbon monoxide
 Carbon dioxide
 Possible in traces.

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SECTION 11: Toxicological information**· 11.1 Information on toxicological effects**

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

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	34,958 mg/kg (m)
Dermal	LD50	67,227 mg/kg (r)
Inhalative	LC50/4 h	>192 mg/l (r)

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Oral	LD50	20,000 mg/kg (mouse) 19,800 mg/kg (rabbit) 11,400 mg/kg (rat)
	NOEL	540 mg/kg (rat) (OECD 416)
Dermal	LD50	20,000 mg/kg (rabbit)

15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	5,170 mg/kg (rat)
	LD50	>2,000 mg/kg (rabbit)

100-51-6 Benzyl alcohol

Oral	LD50	1,040 mg/kg (mouse) 1,040 mg/kg (rabbit) 1,620 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/8h	1,000 ppm (rat)
	LC50/4 h	11 mg/l (rat)
	LC50/48h	360 mg/l (daphnia magna) 645 mg/l (goo)

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

Oral	LD50	8,025 mg/kg (rat) (OECD 401)
	NOAEL-Werte	≥5 mg/kg (mouse) 200 mg/kg (rabbit) (OECD 414) 500 mg/kg (rat) (OECD 415)
Dermal	LD50	4,250 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	>5.3 mg/l (rat) (OECD 403)
	NOAEC	0.225 mg/l (rat) (OECD 412)

108-83-8 2,6-dimethylheptan-4-one

Oral	LD50	5,750 mg/kg (rat)
Dermal	LD50	16,000 mg/kg (rbt)

· Primary irritant effect:

· Skin corrosion/irritation Causes skin irritation.

· Serious eye damage/irritation Causes serious eye irritation.

· Respiratory or skin sensitisation May cause an allergic skin reaction.

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

· Germ cell mutagenicity Based on available data, the classification criteria are not met.

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

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

· STOT-single exposure Based on available data, the classification criteria are not met.

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- STOT-repeated exposure
- Aspiration hazard

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

SECTION 12: Ecological information**· 12.1 Toxicity**

- Aquatic toxicity:

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

EC50/24h	1.1-3.6 mg/l (daphnia magna)
EC50/96h	3.6 mg/l (Leuciscus idus)
	220 mg/l (Scenedesmus subspicatus)
IC50	>100 mg/l (bacteria)
EC50/48h	2.7 mg/l (daphnia magna) (OECD 202)
NOEC	0.3 mg/kg (daphnia magna) (OECD 211)
EC50/72h	9.4 mg/l (selenastrum capricornutum)
LC50/96h	1.3 mg/l (piscis)
	1.5 mg/l (Oncorhynchus mykiss) (OECD 203)
	1.5-7.7 mg/l (rainbow trout)
LC50/72h	>11 mg/l (green alge)

15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate

EC20/0.5h	625 mg/l (BES)
EC50/48h	19.9 mg/l (daphnia magna)
EC50/72h	4.9 mg/l (Scenedesmus subspicatus)
LC50/96h	1-2 mg/l (Leuciscus idus)

100-51-6 Benzyl alcohol

EC50/24h	55-400 mg/l (daphnia magna)
EC50/96h	640 mg/l (Scenedesmus pluvialis)
EC50	2,100 mg/l (BES) (OECD 209)
	79 mg/l (Scenedesmus quadricauda)
EC10/16h	658 mg/l (pseudomonas putida)
EC50/48h	230 mg/l (daphnia magna) (OECD 202)
EC0	640 mg/l (Scenedesmus quadricauda)
EC50/16h	658 mg/l (pseudomonas putida)
EC50/30min	71.4 mg/l (Photobac. phosphoreum)
	400 mg/l (pseudomonas putida)
IC5/96h	640 mg/l (Scenedesmus quadricauda)
NOEC	310 mg/kg (Pseudokirchneriella subcapitata)
NOEC/21d	51 mg/l (daphnia magna) (OECD211)
EC50/72h	770 mg/l (green alge) (OECD 201)
	770 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	645 mg/l (goo)
	10 mg/l (Iepomis macrochirus)
	460 mg/l (Pimephales promelas)

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

EC50/96h	350 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
	>100 mg/l (Salmo gairdneri)

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EC50	119 mg/l (green alge)
IC50	255 mg/l (Scenedesmus subspicatus)
EC50/48h	324 mg/l (daphnia magna)
EC10/5h	1,500 mg/l (pseudomonas putida)
ErC50/72h	350 mg/l (Selenastrum capricornutum)
ECO/96h	44 mg/l (Cyprinus carpio)
NOEC	>100 mg/kg (Klärschlamm: Atmungs-/Vermehrungshemmung) (OECD 209)
NOEC/21d	≥100 mg/l (daphnia magna) (OECD 211)
EC50/48h	324-710 mg/l (daphnia magna) (OECD 202)
EC50/72h	255 mg/l (Scenedesmus subspicatus)
LC50/96h	55 mg/l (Cyprinus carpio) (OECD 203)
	237 mg/l (Oncorhynchus mykiss)

· **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.

· Ecotoxicological effects:

· Remark:

Toxic for fish

· Additional ecological information:

· General notes:

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

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

· PBT:

Not applicable.

· vPvB:

Not applicable.

· **12.6 Other adverse effects**

No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· Recommendation

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

· European waste catalogue

20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 27*	paint, inks, adhesives and resins containing hazardous substances
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by hazardous substances

· Uncleaned packaging:

· Recommendation:

Empty contaminated packaging thoroughly. They may be recycled after thorough and proper cleaning.

· Recommended cleansing agents:

Alcohol

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SECTION 14: Transport information

· 14.1 UN-Number · <u>ADR, IMDG, IATA</u>	UN3082
· 14.2 UN proper shipping name · <u>ADR</u> · <u>IMDG</u> · <u>IATA</u>	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), oxirane, mono[(C12-14-alkyloxy)methyl] derivs) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), oxirane, mono[(C12-14-alkyloxy)methyl] derivs), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), oxirane, mono[(C12-14-alkyloxy)methyl] derivs)
· 14.3 Transport hazard class(es) · <u>ADR</u>  · <u>Class</u> · <u>Label</u>	9 (M6) Miscellaneous dangerous substances and articles. 9
· <u>IMDG, IATA</u>  · <u>Class</u> · <u>Label</u>	9 Miscellaneous dangerous substances and articles. 9
· 14.4 Packing group · <u>ADR, IMDG, IATA</u>	III
· 14.5 Environmental hazards: · <u>Marine pollutant:</u> · <u>Special marking (ADR):</u> · <u>Special marking (IATA):</u>	Product contains environmentally hazardous substances: Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · <u>Danger code (Kemler):</u> · <u>EMS Number:</u> · <u>Stowage Category</u>	Warning: Miscellaneous dangerous substances and articles. 9 F-A,S-F A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· <u>Transport/Additional information:</u> · <u>ADR</u> · <u>Limited quantities (LQ)</u> · <u>Excepted quantities (EQ)</u> · <u>Transport category</u>	 5 Code: E 3

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· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	5
· Excepted quantities (EQ)	Code: E
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT = 700), OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS), 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
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- National regulations:
- Information about limitation of use: Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- VOC EU 38.9 g/l
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.
- Recommended restriction of use refer to Technical Data Sheet (TDS)
- Department issuing SDS: Laboratory
- Contact: Dieter Zimmermann
- Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

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ICAO: International Civil Aviation Organisation
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (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 (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 3: Flammable liquids – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 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
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
 REACH directive 1907/2006/EC

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

Adaptation in accordance with REACH directive 1907/2006/EC

GB