

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.07.2019

Version number 5

Revision: 16.07.2019

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

1.1 Product identifier

Trade name: **2K Epoxy Primer**

Article number: 88111

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

No further relevant information available.

No further relevant information available

Sector of Use: SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product category: PC9a Coatings and paints, thinners, paint removers

Process category: PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC10 Roller application or brushing

PROC11 Non industrial spraying

PROC13 Treatment of articles by dipping and pouring

PROC19 Manual activities involving hand contact

Environmental release category: ERC5 Use at industrial site leading to inclusion into/onto article

ERC8c Widespread use leading to inclusion into/onto article (indoor)

Application of the substance / the mixture

Coating material

Priming

1.3 Details of the supplier of the safety data sheet

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3

H226 Flammable liquid and vapour.



GHS08 health hazard

STOT RE 2

H373 May cause damage to the central nervous system and the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.

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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.

• Response:

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF exposed or concerned: Get medical advice/attention.

• Storage:

Store in a well-ventilated place. Keep cool.

Store in a well-ventilated place. Keep container tightly closed.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

• **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.



GHS02 GHS07 GHS08 GHS09

• Signal word

Warning

• Hazard-determining components

of labelling:

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

xylene

• Hazard statements

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H373 May cause damage to the central nervous system and the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.

H411 Toxic to aquatic life with long lasting effects.

• Precautionary statements

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.

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260

Do not breathe vapours.

P273

Avoid release to the environment.

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.

P333+P313

If skin irritation or rash occurs: Get medical advice/attention.

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P403+P235
P501Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/
regional/national/international regulations.· Additional information:· **2.3 Other hazards**

Contains epoxy constituents. May produce an allergic reaction.

The product does not contain any organic halogen compounds (AOX), nitrates,
heavy metal compounds or formaldehydes.· 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: consisting of the following components.

· 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	12.5-25%
CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg.nr.: 01-2119555267-33 01-2119488216-32	xylene ⚠ Flam. Liq. 3, H226 ⚠ STOT RE 2, H373; Asp. Tox. 1, H304 ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	12.5-25%
CAS: 7779-90-0 EINECS: 231-944-3 Index number: 030-011-00-6 Reg.nr.: 01-2119485044-40-0000	trizinc bis(orthophosphate) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<10%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-211947591-29	2-methoxy-1-methylethyl acetate ⚠ Flam. Liq. 3, H226 ⚠ STOT SE 3, H336	1-5%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29	n-butyl acetate ⚠ Flam. Liq. 3, H226 ⚠ STOT SE 3, H336	1-5%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4 Reg.nr.: 01-2119489370-35 01-2119892111-44	ethylbenzene ⚠ Flam. Liq. 2, H225 ⚠ STOT RE 2, H373; Asp. Tox. 1, H304 ⚠ Acute Tox. 4, H332 Aquatic Chronic 3, H412	1-5%

· 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:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical
observation for at least 48 hours after the accident.

Position and transport stably in side position.

· After inhalation:Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Consult doctor if symptoms persist.In case of unconsciousness place patient stably in side position for
transportation.· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

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- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
 - Headache
 - Dizziness
 - Dizziness
- **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, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
 - Can form explosive gas-air mixtures.
 - In case of fire, the following can be released:
 - Carbon monoxide (CO)
 - Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- Protective equipment:
 - Mount respiratory protective device.
 - Wear self-contained respiratory protective device.
 - Do not inhale explosion gases or combustion gases.
- Additional information
 - Cool endangered receptacles with water spray.
 - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 - Mount respiratory protective device.
 - Wear protective equipment. Keep unprotected persons away.
 - Keep away from ignition sources.
 - Ensure adequate ventilation
 - Use respiratory protective device against the effects of fumes/dust/aerosol.
- **6.2 Environmental precautions:**
 - Do not allow to penetrate the ground/soil.
 - 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).
 - Dispose contaminated material as waste according to item 13.
 - Ensure adequate ventilation.
 - Do not flush with water or aqueous cleansing agents
- **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.

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SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**

Keep away from heat and direct sunlight.
 Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
 Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.
 Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

- Information about fire - and explosion protection:**

Fumes can combine with air to form an explosive mixture.
 Do not spray onto a naked flame or any incandescent material.
 Use explosion-proof apparatus / fittings and spark-proof tools.
 Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
 Keep respiratory protective device available.

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

- Storage:**

- Requirements to be met by storerooms and receptacles:**

Prevent any seepage into the ground.

- Information about storage in one common storage facility:**

VCI-Konzept für die Zusammenlagerung von Chemikalien beachten.
 Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

- Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.
 Protect from heat and direct sunlight.
 Protect from frost.
 Keep container tightly sealed.

- Storage class:**

3

- 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:**

108-65-6 2-methoxy-1-methylethyl acetate

WEL Short-term value: 548 mg/m³, 100 ppm
 Long-term value: 274 mg/m³, 50 ppm
 Sk

123-86-4 n-butyl acetate

WEL Short-term value: 966 mg/m³, 200 ppm
 Long-term value: 724 mg/m³, 150 ppm

100-41-4 ethylbenzene

WEL Short-term value: 552 mg/m³, 125 ppm
 Long-term value: 441 mg/m³, 100 ppm
 Sk

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· 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/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	12.25 mg/m³ Air (ARB)

1330-20-7 xylene

Oral	DNEL (Langzeit-wiederholt)	1.6 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	180 mg/kg bw/day (ARB)
		108 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	289 mg/m³ Air (ARB)
		174 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	77 mg/m³ Air (ARB)
		14.8 mg/m³ Air (BEV)

7779-90-0 trizinc bis(orthophosphate)

Oral	DNEL (Langzeit-wiederholt)	0.83 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	83 mg/kg bw/day (ARB)
		83 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	5 mg/m³ Air (ARB)
		2.5 mg/m³ Air (BEV)

108-65-6 2-methoxy-1-methylethyl acetate

Oral	DNEL (Langzeit-wiederholt)	1.67 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	153.5 mg/kg bw/day (ARB)
		54.8 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	550 mg/m³ Air (ARB)
		275 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	33 mg/m³ Air (BEV)

123-86-4 n-butyl acetate

Oral	DNEL (Kurzzeit-akut)	2 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	2 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	11 mg/kg bw/day (ARB)
		6 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	11 mg/kg bw/day (ARB)
Inhalative		6 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	960 mg/m³ Air (ARB)
		859.7 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	480 mg/m³ Air (ARB)
		102.34 mg/m³ Air (BEV)

100-41-4 ethylbenzene

Oral	DNEL (Langzeit-wiederholt)	1.6 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	180 mg/kg bw/day (ARB)

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Inhalative	DNEL (Kurzzeit-akut)	293 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	77 mg/m ³ Air (ARB)
		15 mg/m ³ 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)	0.0478 mg/kg Trockengew (BO)
	0.00627 mg/kg Trockengew (MWS)
	0.0627 mg/kg Trockengew (SWS)

1330-20-7 xylene

PNEC (wässrig)	6.58 mg/l (KA)
	0.327 mg/l (MW)
	0.327 mg/l (SW)
	0.327 mg/l (WAS)
PNEC (fest)	2.31 mg/kg Trockengew (BO)
	12.46 mg/kg Trockengew (MWS)
	12.46 mg/kg Trockengew (SWS)

108-65-6 2-methoxy-1-methylethyl acetate

PNEC (wässrig)	100 mg/l (KA)
	0.0635 mg/l (MW)
	0.635 mg/l (SW)
	6.35 mg/l (WAS)
PNEC (fest)	0.29 mg/kg Trockengew (BO)
	0.329 mg/kg Trockengew (MWS)
	3.29 mg/kg Trockengew (SWS)

123-86-4 n-butyl acetate

PNEC (wässrig)	35.6 mg/l (KA)
	0.018 mg/l (MW)
	0.18 mg/l (SW)
	0.36 mg/l (WAS)
PNEC (fest)	0.0903 mg/kg Trockengew (BO)
	0.0981 mg/kg Trockengew (MWS)
	0.981 mg/kg Trockengew (SWS)

100-41-4 ethylbenzene

PNEC (wässrig)	9.6 mg/l (KA)
	0.1 mg/l (SW)
	0.1 mg/l (WAS)
PNEC (fest)	2.68 mg/kg Trockengew (BO)
	1.37 mg/kg Trockengew (MWS)
	13.7 mg/kg Trockengew (SWS)

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

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8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

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.
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the eyes and skin.
 Store protective clothing separately.
 Short term filter device:
 Filter A-P3
 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.
 Preventive skin protection by use of skin-protecting agents is recommended.
 After use of gloves apply skin-cleaning agents and skin cosmetics.

- Respiratory protection:

- Protection of hands:



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

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 ≤ 6

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

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

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

- Not suitable are gloves made of the following materials:

Leather gloves
 Strong material gloves

- Eye protection:



Tightly sealed goggles

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· 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: Light grey
 Odour: Characteristic
 Odour threshold: Not determined.

· pH-value: Not applicable

· Change in condition

Melting point/freezing point: Undetermined.
 Initial boiling point and boiling range: 124-128 °C

· Flash point: 23 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 460 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower: 1.1 Vol %
 Upper: 7 Vol %

· Vapour pressure at 20 °C: 6.7-8.2 hPa

· Density at 20 °C: 1.58 g/cm³
 · Relative density Not determined.
 · Vapour density Not determined.
 · Evaporation rate Not determined.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined.
 Kinematic: Not determined.

· Solvent content:

Organic solvents: 25.7 %

· 9.2 Other information

No further relevant information available.

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

Forms explosive gas mixture with air.

· 10.4 Conditions to avoid

No further relevant information available.

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- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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)

Inhalative	LC50/4 h	>74.4 mg/l (rat)
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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)
Dermal	NOEL	540 mg/kg (rat) (OECD 416)
	LD50	20,000 mg/kg (rabbit)

1330-20-7 xylene

Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rbt)
Inhalative	LC50/4h	29,000 mg/m3 (rat)
	LC50/4 h	21.7 mg/l (rat)
	LC50/48h	86 mg/l (Leuciscus idus)

7779-90-0 trizinc bis(orthophosphate)

Oral	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.7 mg/l (rat)

108-65-6 2-methoxy-1-methylethyl acetate

Oral	LD50	8,532 mg/kg (rat)
Dermal	NOAEL-Werte	1,500 mg/kg (rat)
	LD50	>5,000 mg/kg (rabbit)
Inhalative		>2,000 mg/kg (rat)
	LC50/4h	>10,000 mg/m3 (rat)
	LC50	>23.8 mg/l (rat)
	LC50/4 h	35.7 mg/l (rat)
	LC50/48h	100 mg/l (Desmodesmus subspicatus)

123-86-4 n-butyl acetate

Oral	LD50	10,800 mg/kg (rat) (OECD 423)
Dermal	LD50	>17,600 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	>21 mg/l (rat) (OECD 403)
	LC50	390 mg/m3 (rat)
	LC50/48h	64 mg/l (Brachydanio rerio)

100-41-4 ethylbenzene

Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	15,000 mg/kg (rbt)
Inhalative	LC50/4 h	17.2 mg/l (rat)

- Primary irritant effect:
- Skin corrosion/irritation Causes skin irritation.

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- 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.
- STOT-repeated exposure May cause damage to the central nervous system and the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.
- Aspiration hazard 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	1.8 mg/l (daphnia magna) (OECD 202)
NOEC	0.3 mg/kg (daphnia magna) (OECD 211)
EC50/72h	11 mg/l (Desmodesmus subspicatus) 9.4 mg/l (selenastrum capricornutum)
LC50/96h	1.3 mg/l (piscis) 2 mg/l (Leuciscus idus) 1.5 mg/l (Oncorhynchus mykiss) (OECD 203) 1.5-7.7 mg/l (rainbow trout)
LC50/72h	>11 mg/l (green alge)

1330-20-7 xylene

EC50/24h	>175 mg/l (bacteria) 165 mg/l (daphnia magna)
EC50	10 mg/l (bacteria)
IC50	96 mg/l (BES) 1 mg/l (daphnia magna)
LC50	2 mg/l (piscis)
LC50/24h	32 mg/l (Iepomis macrochirus)
IC50/72h	2.2 mg/l (green alge) 3.3 mg/l (Pseudokirchneriella subcapitata)
EC50/48h	8 mg/l (daphnia magna)
EC50/72h	4.7 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	16.9 mg/l (carassius auratus) 1.57 mg/l (Cyprinus carpio) 3.77-13.5 mg/l (piscis) 20.9 mg/l (Iepomis macrochirus) 7.6 mg/l (Oncorhynchus mykiss) 26.7 mg/l (Pimephales promelas)

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7779-90-0 trizinc bis(orthophosphate)

EC50/48h	28.2 mg/l (daphnia magna)
ErC50/72h	<0.3 mg/l (Desmodesmus subspicatus)
EC50/48h	<1.7 mg/l (daphnia magna)
EC50/72h	0.28 mg/l (Selenastrum capricornutum)
LC50/96h	<5.1 mg/l (Oncorhynchus mykiss)

108-65-6 2-methoxy-1-methylethyl acetate

EC50	>100 mg/l (daphnia magna)
LC50	63.5 mg/l (Oryzias latipes)
EC50/48h	408 mg/l (daphnia magna) (RL 67/548/EWG. Anhang V, C.2.)
ErC50/72h	>1,000 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EC20/0.5h	>1,000 mg/l (BES) (OECD 209)
NOEC	47.5 mg/l (Oryzias latipes)
NOEC/21d	≥100 mg/l (daphnia magna)
EC10	>1,000 mg/l (BES)
LC50/96h	134 mg/l (Oncorhynchus mykiss)
	161 mg/l (Pimephales promelas)

123-86-4 n-butyl acetate

EC50/24h	72.8 mg/l (daphnia magna) (DIN 38412)
EC50/96h	320 mg/l (green alge)
LC50/24h	205 mg/l (daphnia magna)
IC50/72h	648 mg/l (Desmodesmus subspicatus)
EC10/18h	959 mg/l (pseudomonas putida)
EC50/48h	44 mg/l (daphnia magna)
EC50/16h	959 mg/l (pseudomonas putida)
NOEC	200 mg/kg (Desmodesmus subspicatus)
EC50/72h	647.7 mg/l (Desmodesmus subspicatus) (Zellvermehrungshemmtest)
	674 mg/l (Scenedesmus subspicatus)
LC50/96h	62 mg/l (Danio rerio.)
	81 mg/l (piscis)
	100 mg/l (Iepomis macrochirus)
	62 mg/l (Leuciscus idus) (DIN 38412)
	18 mg/l (pimephales promelas) (OECD 203)

100-41-4 ethylbenzene

LC50/24h	26.74-43.67 mg/l (Iepomis macrochirus)
EC5	12 mg/l (pseudomonas putida)
EC50/48h	1.37-4.4 mg/l (daphnia magna)
EC50/16h	>12 mg/l (bacteria)
EC50/30min	600 mg/l (BES)
EC50/72h	4.9 mg/l (Skeletonehma costatum (Kieselalge))
	5.4 mg/l (Pseudokirchneriella subcapitata)
	4.6 mg/l (selenastrum capricornutum)
LC50/96h	94.44 mg/l (carassius auratus)
	32 mg/l (Iepomis macrochirus)
	4.2 mg/l (Oncorhynchus mykiss)
	12.1 mg/l (pimephales promelas)

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

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

- **Uncleaned packaging:**
- **Recommendation:** Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1263
- **14.2 UN proper shipping name**
- **ADR** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS
- **IMDG** PAINT (trizinc bis(orthophosphate), reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)), MARINE POLLUTANT
- **IATA** PAINT
- **14.3 Transport hazard class(es)**
- **ADR**



- **Class** 3 (F1) Flammable liquids.

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• <u>Label</u>	3
• <u>IMDG</u>	
 	
• <u>Class</u>	3 Flammable liquids.
• <u>Label</u>	3
• <u>IATA</u>	
	
• <u>Class</u>	3 Flammable liquids.
• <u>Label</u>	3
• 14.4 Packing group	
• <u>ADR, IMDG, IATA</u>	III
• 14.5 Environmental hazards:	Product contains environmentally hazardous substances:
• <u>Marine pollutant:</u>	Yes
	Symbol (fish and tree)
• <u>Special marking (ADR):</u>	Symbol (fish and tree)
• 14.6 Special precautions for user	Warning: Flammable liquids.
• <u>Danger code (Kemler):</u>	30
• <u>EMS Number:</u>	F-E, S-E
• <u>Stowage Category</u>	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>	5L
• <u>Excepted quantities (EQ)</u>	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
• <u>Transport category</u>	3
• <u>Tunnel restriction code</u>	D/E
• <u>IMDG</u>	
• <u>Limited quantities (LQ)</u>	5L
• <u>Excepted quantities (EQ)</u>	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
• <u>UN "Model Regulation":</u>	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS

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.

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- Seveso category E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- 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 pregnant and lactating women must be observed.
Employment restrictions concerning juveniles must be observed.
- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- VOC EU 406.1 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 H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to the central nervous system and the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful 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)
ICAO: International Civil Aviation Organisation
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

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Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
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
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – 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
REACH directive 1907/2006/EC

· Sources

· * Data compared to the previous
version altered.

Adaptation in accordance with REACH directive 1907/2006/EC

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