Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 25.06.2024 Version number 8 (replaces version 7) Revision: 25.06.2024

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

· **1.1 Product identifier**

· Trade name: **2K Epoxy Primer**

· Article number: 88111

· UFI: TU70-70K6-600C-1QH0

· **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 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
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.

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SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 3	H226 Flammable liquid and vapour.
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.
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.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.

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

· Hazard pictograms

GHS02 GHS07 GHS08 GHS09

· Signal word Warning

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· Hazard-determining components of labelling: 4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane
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 carefully and follow all instructions.
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.
P314 Get medical advice/attention if you feel unwell.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information: Contains epoxy constituents. May produce an allergic reaction.

· **2.3 Other hazards** 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 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	4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl) oxirane 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 %	12.5-25%

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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 Aquatic Chronic 3, H412	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.: 01-2119475791-29	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 EUH066	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.

· 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.

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· 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 section 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.

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.

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· **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**

· **8.1 Control parameters**

· Ingredients with limit values that require monitoring at the workplace:	
108-65-6 2-methoxy-1-methylethyl acetate	
IOELV	Short-term value: 550 mg/m³, 100 ppm Long-term value: 275 mg/m³, 50 ppm Skin
123-86-4 n-butyl acetate	
IOELV	Short-term value: 723 mg/m³, 150 ppm Long-term value: 241 mg/m³, 50 ppm
100-41-4 ethylbenzene	
IOELV	Short-term value: 884 mg/m³, 200 ppm Long-term value: 442 mg/m³, 100 ppm Skin

· DNELs

25068-38-6 4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane		
Oral	DNEL (Kurzzeit-akut)	0.75 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	0.5 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)	0.75 mg/kg bw/day (ARB)
		0.0893 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	12.25 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	4.93 mg/m³ Air (ARB)
		0.87 mg/m³ Air (BEV)
1330-20-7 xylene		
Oral	DNEL (Langzeit-wiederholt)	12.5 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	212 mg/kg bw/day (ARB)
		125 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	442 mg/m³ Air (ARB)
		260 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	221 mg/m³ Air (ARB)

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		65.3 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 (Kurzzeit-akut)	500 mg/kg bw/day (BEV)
	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)
		33 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	275 mg/m³ Air (ARB)
		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)
		6 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	600 mg/m³ Air (ARB)
		300 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	48-300 mg/m³ Air (ARB)
		12-35.7 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)
Inhalative	DNEL (Kurzzeit-akut)	293 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	77 mg/m³ Air (ARB)
		15 mg/m³ Air (BEV)

· PNECs

25068-38-6 4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	
PNEC (wässrig)	10 mg/l (KA)
	0.0006 mg/l (MW)
	0.006 mg/l (SW)
	0.018 mg/l (WAS)
PNEC (fest)	0.065 mg/kg Trockengew (BO)
	0.034 mg/kg Trockengew (MWS)
	0.341 mg/kg Trockengew (SWS)
1330-20-7 xylene	
PNEC (wässrig)	6.58 mg/l (KA)
	0.327 mg/l (MW)

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	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)
	0.01 mg/l (MW)
	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.

· **8.2 Exposure controls**

· Appropriate engineering controls No further data; see section 7.

· Individual protection measures, such as 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.

· Respiratory protection: 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.

· Hand protection 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.

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 trough 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/face 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	
· Colour:	Light grey
· Odour:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	124-128 °C
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	1.1 Vol %
· Upper:	7 Vol %
· Flash point:	23 °C
· Auto-ignition temperature:	315 °C

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· Decomposition temperature:	Not determined.
· pH	Not determined. Not applicable
· Viscosity:	
· Kinematic viscosity at 40 °C	>200 mm²/s
· Dynamic:	Not determined.
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	6.7-8.2 hPa
· Density and/or relative density	
· Density at 20 °C:	1.59 g/cm³
· Relative density	Not determined.
· Vapour density	Not determined.

· **9.2 Other information**

· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Solvent content:	
· Organic solvents:	25.7 %
· Solids content:	73.8 %
· 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	Flammable liquid and vapour.
· 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**	Forms explosive gas mixture with air.

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· **10.4 Conditions to avoid** No further relevant information available.
· **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 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 relevant for classification:

ATE (Acute Toxicity Estimates)		
Inhalative	LC50/4 h	860 mg/l (rat)

25068-38-6 4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane		
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)

1330-20-7 xylene		
Oral	LD50	3,523-4,300 mg/kg (rat)
Dermal	LD50	>4,200 mg/kg (rabbit)
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	8,500 mg/kg (rat) (OECD 401)
	NOAEL-Werte	1,500 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit) (OECD 402)
		>2,000 mg/kg (rat)
Inhalative	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	10,760 mg/kg (rat) (OECD 423)
Dermal	LD50	>14,112 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	23.4 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	17,800 mg/kg (rabbit)
Inhalative	LC50/4 h	17.2 mg/l (rat)

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

· **11.2 Information on other hazards**

· Endocrine disrupting properties

None of the ingredients is listed.

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SECTION 12: Ecological information

· **12.1 Toxicity**

· Aquatic toxicity:

25068-38-6 4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	
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 (trout)
LC50/72h	>11 mg/l (algae)

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 (lepomis macrochirus)
IC50/72h	2.2 mg/l (algae)
	3.3 mg/l (Pseudokirchneriella subcapitata)
EC50/48h	3.82 mg/l (daphnia magna)
NOEC	0.96-1.17 mg/l (daphnia magna)
	>1.3 mg/l (Oncorhynchus mykiss)
	0.44 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EC50/72h	4.7 mg/l (Pseudokirchneriella subcapitata)
	2.2 mg/l (selenastrum capricornutum) (OECD 201)
LC50/96h	16.9 mg/l (carp)

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	1.57 mg/l (Cyprinus carpio)
	3.77-13.5 mg/l (piscis)
	20.9 mg/l (lepomis macrochirus)
	7.6 mg/l (Oncorhynchus mykiss)
	13.4 mg/l (pimephales promelas)
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	>500 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)
EC50/72h	>1,000 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	100-180 mg/l (Oncorhynchus mykiss)
	>1,000 mg/l (Oryzias latipes)
	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 (algae)
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) (OECD 202)
EC50/16h	959 mg/l (pseudomonas putida)
NOEC	200 mg/kg (Desmodesmus subspicatus)
NOEC/21d	23 mg/l (daphnia magna) (OECD 211)
EC50/72h	647.7 mg/l (Desmodesmus subspicatus) (Zellvermehrungshemmtest)
	397 mg/l (Scenedesmus subspicatus)
LC50/96h	62 mg/l (Danio rerio.)
	81 mg/l (piscis)
	100 mg/l (lepomis 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 (lepomis macrochirus)
EC5	12 mg/l (pseudomonas putida)
EC50/48h	1.8-2.4 mg/l (daphnia magna)

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EC50/16h	>12 mg/l (bacteria)
EC50/30min	600 mg/l (BES)
EC50/72h	4.9 mg/l (Skeletonema costatum (Kieselalge))
	5.4 mg/l (Pseudokirchneriella subcapitata)
	4.6 mg/l (selenastrum capricornutum)
LC50/96h	94.44 mg/l (carp)
	32 mg/l (lepomis macrochirus)
	4.2 mg/l (Oncorhynchus mykiss)
	12.1 mg/l (pimephales promelas)

· **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: 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

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 or ID number**
· ADR, IMDG, IATA UN1263

· **14.2 UN proper shipping name**
· ADR 1263 PAINT, ENVIRONMENTALLY HAZARDOUS
· IMDG PAINT, MARINE POLLUTANT
· IATA PAINT

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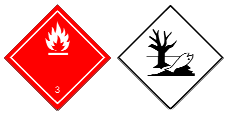
· **14.3 Transport hazard class(es)**

· ADR



· Class	3 (F1) Flammable liquids.
· Label	3

· IMDG

· Class	3 Flammable liquids.
· Label	3

· IATA

· Class	3 Flammable liquids.
· Label	3

· **14.4 Packing group**	
· ADR, IMDG, IATA	III
· **14.5 Environmental hazards:**	Product contains environmentally hazardous substances:
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· **14.6 Special precautions for user**	Warning: Flammable liquids.
· Hazard identification number (Kemler code):	30
· EMS Number:	F-E,S-E
· Stowage Category	A
· **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	D/E
· IMDG	
· 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

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· UN "Model Regulation":	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.
· 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

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· 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.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· VOC EU	407.6 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.

· Department issuing SDS:	Laboratory

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· Date of previous version: 09.12.2022

· Version number of previous version: 7

· 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 relatif au transport international 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
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
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