Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

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

· **1.1 Product identifier**
· Trade name: **Akepox 2030 Component B**

· Article number: 10601, 10614, 10602, 10566, 10612, 10605, 10613, 10565, 10563, 10600, 10603, 10564, 10604, 10649

· **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 adhesive

· **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

* **SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**
· Classification according to Regulation (EC) No 1272/2008


GHS08 health hazard

Muta. 2 H341 Suspected of causing genetic defects.


GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.


GHS07

Acute Tox. 4 H332 Harmful if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **2.2 Label elements**
· Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 1)

· Hazard pictograms

GHS05 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labelling: formaldehyde polymer with 1,3-benzenedimethanamine and phenol
m-phenylenebis(methylamine)
phenol
Benzyl alcohol
N-(3-(trimethoxysilyl)propyl)ethylenediamine
N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)

· Hazard statements
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H412 Harmful 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.
P260	Do not breathe vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

*

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**
· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 57214-10-5 NLP: 500-137-0	formaldehyde polymer with 1,3-benzenedimethanamine and phenol Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	25-50%
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50-xxxx	m-phenylenebis(methylamine) Skin Corr. 1B, H314 Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317 Aquatic Chronic 3, H412	12.5-25%

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 2)

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	<12.5%
CAS: 108-95-2 EINECS: 203-632-7 Index number: 604-001-00-2 Reg.nr.: 01-2119471329-32	phenol Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 Muta. 2, H341; STOT RE 2, H373 Skin Corr. 1B, H314	1-5%
	N-(3-(trimethoxysilyl)propyl)ethylenediamine Eye Dam. 1, H318 Skin Sens. 1, H317	1-5%
CAS: 123-26-2 EINECS: 204-613-6 Reg.nr.: 01-2120783565-42-xxxx	N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) Skin Sens. 1B, H317 Aquatic Chronic 3, H412	<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: 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.

· 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: 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: Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.

· **4.2 Most important symptoms and effects, both acute and delayed**

Headache
Dizziness
Dizziness
Nausea
Allergic reactions

· Information for doctor: The symptoms of phenol based poisoning appearances are white coloured mouth scabs, shock condition, insensibility, bradycardia and renal dysfunction and damage of renal tissue. Appropriate therapy measures: Administration of an adequate volume of liquid, gastrolavage in application of carbo medicinalis, sodium sulphate with plenty of water, infusion of glucose solution (5%); maesures against state of shock, hemodialysis.

· **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· Suitable extinguishing agents: Use fire 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.
In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx)

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 3)

· **5.3 Advice for firefighters**
· Protective equipment: Wear fully protective suit.
Wear self-contained respiratory protective device.
Mount respiratory protective device.
· Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.
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** Wear protective equipment. Keep unprotected persons away.
· **6.2 Environmental precautions:** Do not allow to penetrate the ground/soil.
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).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· **6.4 Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** 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: No special requirements.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions: Keep container tightly sealed.
· Storage class: 8
· **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:	
108-95-2 phenol	
WEL	Short-term value: 16 mg/m³, 4 ppm Long-term value: 7.8 mg/m³, 2 ppm Sk

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 4)

· DNELs

57214-10-5 formaldehyde polymer with 1,3-benzenedimethanamine and phenol		
Oral	DNEL (Kurzzeit-akut)	3.33 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	3.33 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	0.00385-2.8 mg/kg bw/day (ARB)
		0.000167-0.008 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	0.000385-0.28 mg/kg bw/day (ARB)
		0.000167-0.008 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	2-6 mg/m³ Air (ARB)
1477-55-0 m-phenylenebis(methylamine)		
Dermal	DNEL (Langzeit-wiederholt)	0.33 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	1.2 mg/m³ Air (ARB)
100-51-6 Benzyl alcohol		
Oral	DNEL (Kurzzeit-akut)	20 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	4 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	40 mg/kg bw/day (ARB)
		20 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	8 mg/kg bw/day (ARB)
		4 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	110 mg/m³ Air (ARB)
		27 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	22 mg/m³ Air (ARB)
		5.4 mg/m³ Air (BEV)
108-95-2 phenol		
Oral	DNEL (Langzeit-wiederholt)	0.4 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	0.4 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	8 mg/m³ Air (ARB)
		1.32 mg/m³ Air (BEV)
N-(3-(trimethoxysilyl)propyl)ethylenediamine		
Oral	DNEL (Langzeit-wiederholt)	2.5 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	5 mg/kg bw/day (ARB)
	DNEL (Langzeit-wiederholt)	5 mg/kg bw/day (ARB)
		2.5 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	35.5 mg/m³ Air (ARB)
		8.7 mg/m³ Air (BEV)

· PNECs

57214-10-5 formaldehyde polymer with 1,3-benzenedimethanamine and phenol	
PNEC (wässrig)	30 mg/l (KA)
	0.002 mg/l (MW)
	0.02 mg/l (SW)
PNEC (fest)	0.0236 mg/kg Trockengew (BO)
	0.01 mg/kg Trockengew (MWS)
	0.1001 mg/kg Trockengew (SWS)
1477-55-0 m-phenylenebis(methylamine)	
PNEC (wässrig)	0.0094 mg/l (MW)
	0.094 mg/l (SW)

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 5)

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)
108-95-2 phenol	
PNEC (wässrig)	2.1 mg/l (KA)
	0.00077 mg/l (MW)
	0.0077 mg/l (SW)
PNEC (fest)	0.136 mg/kg Trockengew (BO)
	0.00915 mg/kg Trockengew (MWS)
	0.0915 mg/kg Trockengew (SWS)
N-(3-(trimethoxysilyl)propyl)ethylenediamine	
PNEC (wässrig)	25 mg/l (KA)
	0.0062 mg/l (MW)
	0.062 mg/l (SW)
	0.62 mg/l (WAS)
PNEC (fest)	0.0075 mg/kg Trockengew (BO)
	0.005 mg/kg Trockengew (MWS)
	0.05 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:
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.

· 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.

· Protection of hands: Preventive skin protection by use of skin-protecting agents is recommended.
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
Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
STOKO EMULSION (http://www.stoko.com)

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 6)

Skin protection recommendation for skin cleaning after product handling:
Kresto Classic (http://debstoko.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 anylyses 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).

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

· Penetration time of glove material: Value for the permeation: Level ≤ 6, 480 min
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:
Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
Nitrile rubber, NBR
Dermatril (Art_No. 740, 741, 742)
Camatril (KCL, Art_No. 730, 731, 732, 733)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)

· As protection from splashes gloves made of the following materials are suitable:
Butyl rubber, BR
Nitrile rubber, NBR
Camatril (KCL, 730, 731, 732, 733)

· Not suitable are gloves made of the following materials:
Leather gloves
Strong material gloves

· 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: Pasty

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 7)

Colour:	Grey
· Odour:	Characteristic
· pH-value:	Not applicable
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	205 °C
· Flash point:	101 °C
· Ignition temperature:	435 °C
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	1.3 Vol %
Upper:	13 Vol %
· Vapour pressure at 20 °C:	0.1 hPa
· Density at 20 °C:	1.5 g/cm³
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Viscosity:	
Dynamic at 20 °C:	80,000 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	4.0 %
Solids content:	56.9 %
· **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**	Strong exothermic reaction with acids.
· **10.4 Conditions to avoid**	No further relevant information available.
· **10.5 Incompatible materials:**	No further relevant information available.
· **10.6 Hazardous decomposition products:**	Corrosive gases/vapours

*

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· Acute toxicity Harmful if inhaled.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	2,966 mg/kg
Dermal	LD50	9,895 mg/kg
Inhalative	LC50/4 h	13.7-14.5 mg/l (rat)

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 8)

57214-10-5 formaldehyde polymer with 1,3-benzenedimethanamine and phenol		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,020 mg/kg (rat)
1477-55-0 m-phenylenebis(methylamine)		
Oral	LD50	930 mg/kg (rat)
	NOEL	150 mg/kg (rat)
Dermal	LD50	3,100 mg/kg (rabbit)
Inhalative	LC50/4 h	2.4 mg/l (rat)
	LC50/1h	3.89 mg/l (rat)
100-51-6 Benzyl alcohol		
Oral	LD50	1,040 mg/kg (mouse)
		1,040 mg/kg (rabbit)
		1,230 mg/kg (rat)
	NOEL	400 mg/kg (rat)
	NOAEL	200 mg/kg (mouse)
		400 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)
108-95-2 phenol		
Oral	LD50	300 mg/kg (mouse)
		317 mg/kg (rat)
Dermal	LD50	630 mg/kg (rat)
Inhalative	LC50/4 h	316 mg/l (rat)
	LC50/8h	0.9 mg/l (rat)
N-(3-(trimethoxysilyl)propyl)ethylenediamine		
Oral	LD50	2,995 mg/kg (rat)
	NOEL	≥500 mg/kg (rat) (OECD 422)
	NOAEL	≥500 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	1.49-2.44 mg/l (rat)

· Primary irritant effect:
· Skin corrosion/irritation Causes severe skin burns and eye damage.
· Serious eye damage/irritation Causes serious eye damage.
· Respiratory or skin sensitisation May cause an allergic skin reaction.
· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
· Germ cell mutagenicity Suspected of causing genetic defects.
· 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.

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 9)

* **SECTION 12: Ecological information**

· **12.1 Toxicity**

· Aquatic toxicity:

57214-10-5 formaldehyde polymer with 1,3-benzenedimethanamine and phenol	
EC50	491.3 mg/l (BES)
EC50/48h	29.8 mg/l (daphnia magna)
EC50/72h	20.4 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	25.9 mg/l (Oncorhynchus mykiss)
1477-55-0 m-phenylenebis(methylamine)	
EC50/48h	15.2 mg/l (daphnia magna)
EC50/72h	12 mg/l (Scenedesmus subspicatus)
	20.3 mg/l (selenastrum capricornutum)
LC50/96h	>100 mg/l (Oncorhynchus mykiss)
	87.6 mg/l (Oryzias latipes)
	>100 mg/l (Zebrabärbling)
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 (lepomis macrochirus)
	460 mg/l (Pimephales promelas)
108-95-2 phenol	
EC50/24h	21 mg/l (BO)
EC50/96h	61.1 mg/l (green alge)
EC50/48h	3.1 mg/l (daphnia magna)
LC50/96h	8.9 mg/l (Oncorhynchus mykiss)
N-(3-(trimethoxysilyl)propyl)ethylenediamine	
EC50	435 mg/l (Klärschlamm: Atmungs-/Vermehrungshemmung)
IC50/72h	8.8 mg/l (green alge) (OECD 201)
EC50/48h	81 mg/l (daphnia magna)
EC50/16h	67 mg/l (pseudomonas putida)
NOEC	3.1 mg/kg (green alge) (OECD 201)

(Contd. on page 11)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 10)

	≥1,000 mg/kg (Eisenia fetida (Regenwürmer)) (OECD 207)
NOEC/21d	>1 mg/l (daphnia magna)
EC50/48h	87.4 mg/l (daphnia magna)
EC50/72h	5 mg/l (green alge)
LC50/96h	597 mg/l (Danio rerio.)
	168 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.
· Additional ecological information:
· General notes: Do not allow product to reach ground water, water course or sewage system.
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

· Uncleaned packaging:
· Recommendation: Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

* **SECTION 14: Transport information**

· **14.1 UN-Number**
· ADR, IMDG, IATA UN2735

· **14.2 UN proper shipping name**
· ADR 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (formaldehyde polymer with 1,3-benzenedimethanamine and phenol, m-phenylenebis(methylamine))
· IMDG, IATA POLYAMINES, LIQUID, CORROSIVE, N.O.S. (formaldehyde polymer with 1,3-benzenedimethanamine and phenol, m-phenylenebis(methylamine))

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

· Class 8 (C7) Corrosive substances.

(Contd. on page 12)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 11)

· Label	8
· IMDG, IATA	
	
· Class	8 Corrosive substances.
· Label	8
· **14.4 Packing group**	
· ADR, IMDG, IATA	III
· **14.5 Environmental hazards:**	
· Marine pollutant:	No
· **14.6 Special precautions for user**	Warning: Corrosive substances.
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· Stowage Category	A
· Segregation Code	SG35 Stow "separated from" acids.
· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (FORMALDEHYDE POLYMER WITH 1,3-BENZENEDIMETHANAMINE AND PHENOL, M-PHENYLENEBIS(METHYLAMINE)), 8, III

*

SECTION 15: Regulatory information

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

· Directive 2012/18/EU	
· Named dangerous substances - ANNEX I	None of the ingredients is listed.
· 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.

(Contd. on page 13)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2019 Version number 17 Revision: 21.01.2019

Trade name: Akepox 2030 Component B

(Contd. of page 12)

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
· VOC EU 180.9 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
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.
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
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1B: Skin sensitisation – Category 1B
Muta. 2: Germ cell mutagenicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· * Data compared to the previous version altered. Adaptation in accordance with REACH directive 1907/2006/EC