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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

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

· **1.1 Product identifier**
· Trade name: **Akepox 1004 Component B**

· Article number: 11667, 11669, 11670,11671, 11672,11673, 11687,11688, 13670, 13671, 13673, 13687, 11400

· **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 Reaction resin

· **1.3 Details of the supplier of the safety data sheet**
· Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH Tel. +49(0)911-642960
Lechstrasse 28 Fax. +49(0)911-644456
D 90451 Nürnberg 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

Repr. 2	H361	Suspected of damaging fertility or the unborn child.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.


GHS05 corrosion

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


GHS09 environment

Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.


GHS07

Acute Tox. 4	H302	Harmful if swallowed.
Acute Tox. 4	H312	Harmful in contact with skin.

(Contd. on page 2)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 1)

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

· **2.2 Label elements**

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

· Hazard pictograms

GHS05 GHS07 GHS08 GHS09

· Signal word: Danger

· Hazard-determining components of labelling:
2-piperazin-1-ylethylamine
Amines, polyethylenepoly-, triethylenetetraamine fraction
Benzyl alcohol
4-nonylphenol, branched

· Hazard statements

H302+H312	Harmful if swallowed or in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very 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.
P260	Do not breathe vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
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.

(Contd. on page 3)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 2)

· Dangerous components:

CAS: 140-31-8 EINECS: 205-411-0 Index number: 612-105-00-4 Reg.nr.: 01-2119471486-30-0000	2-piperazin-1-ylethylamine Acute Tox. 3, H311 Repr. 2, H361; STOT RE 1, H372 Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Sens. 1, H317 Aquatic Chronic 3, H412	25-50%
CAS: 90640-67-8 EINECS: 292-588-2 Index number: 612-065-00-8 Reg.nr.: 01-2119487919-13	Amines, polyethylenepoly-, triethylenetetraamine fraction Skin Corr. 1B, H314 Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317 Aquatic Chronic 3, H412	25-50%
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	25-50%
CAS: 84852-15-3 EINECS: 284-325-5 Index number: 601-053-00-8 Reg.nr.: 01-2119510715-45-xxxx	4-nonylphenol, branched Acute Tox. 3, H331 Repr. 2, H361fd Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute Tox. 4, H302	1-5%

· SVHC

84852-15-3	4-nonylphenol, branched

· Additional information: For the wording of the listed hazard phrases refer to section 16.

*

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information: Take affected persons out into the fresh air.
Position and transport stably in side position.
Immediately remove any clothing soiled by the product.
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: If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.

· After eye contact: Rinse opened eye for several minutes under running water. 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
Nausea
Allergic reactions

· Information for doctor: Amines: Inhalation, swallowing or dermal contact may cause health damages. Cause burns, harm respiratory tract, eyes, skin, and digestion system in worst case up to complete destruction. Intermediate interferences such as headache, nausea, cough, dyspnea may occur. May cause allergies. Sensitized users may react towards very low amine concentrations and should avoid any further contact with this group of chemicals.

(Contd. on page 4)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 3)

Nonylphenol based exposition: causes corrosive burns, damages respiratory tract, eyes, skin and digestive system up to complete tissue destruction. Temporary dysfunctions such as dizziness, headache, nausea and diarrhea may occur. Can cause health disturbances like dermal bleaching, renal and hepatic damage.

· Hazards — Danger of impaired breathing.

· **4.3 Indication of any immediate medical attention and special treatment needed** — If swallowed, gastric irrigation with added, activated carbon.

* **SECTION 5: Firefighting measures**

· **5.1 Extinguishing media**

· Suitable extinguishing agents: — CO_2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **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)
Under certain fire conditions, traces of other toxic gases cannot be excluded.

· **5.3 Advice for firefighters**

· Protective equipment: — Wear fully protective suit.
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
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** — Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
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** — Keep receptacles tightly sealed.

(Contd. on page 5)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 4)

Store in cool, dry place in tightly closed receptacles.
Use only in well ventilated areas.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

· Information about fire - and explosion protection: No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**
· Storage:
· Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
Prevent any seepage into the ground.
· Information about storage in one common storage facility: Store away from oxidising agents.
Store away from foodstuffs.
· Further information about storage conditions: Store receptacle in a well ventilated area.
Protect from humidity and water.
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: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

140-31-8 2-piperazin-1-ylethylamine		
Dermal	DNEL (Kurzzeit-akut)	20 mg/kg bw/day (ARB)
Inhalative	DNEL (Kurzzeit-akut)	21.4 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	10.6 mg/m³ Air (ARB)
90640-67-8 Amines, polyethylenepoly-, triethylenetetraamine fraction		
Dermal	DNEL (Langzeit-wiederholt)	0.57 mg/kg bw/day (ARB)
Inhalative	DNEL (Kurzzeit-akut)	5,380 mg/m³ Air (ARB)
	DNEL (Langzeit-wiederholt)	1 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)

(Contd. on page 6)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 5)

84852-15-3 4-nonylphenol, branched		
Dermal	DNEL (Langzeit-wiederholt)	7.5 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	0.5 mg/m³ Air (ARB)

· PNECs

140-31-8 2-piperazin-1-ylethylamine	
PNEC (wässrig)	0.0058 mg/l (MW) 0.058 mg/l (SW)

90640-67-8 Amines, polyethylenepoly-, triethylenetetraamine fraction	
PNEC (wässrig)	4.25 mg/l (KA) 0.038 mg/l (MW) 0.19 mg/l (SW) 0.2 mg/l (WAS)
PNEC (fest)	19.1 mg/kg Trockengew (BO) 19.2 mg/kg Trockengew (MWS) 95.9 mg/kg Trockengew (SWS)

100-51-6 Benzyl alcohol	
PNEC (wässrig)	39 mg/l (KA) 0.1 mg/l (MW) 1 mg/l (SW) 2.3 mg/l (WAS)
PNEC (fest)	0.456 mg/kg Trockengew (BO) 0.527 mg/kg Trockengew (MWS) 5.27 mg/kg Trockengew (SWS)

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

· **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.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· Respiratory protection: Not necessary if room is well-ventilated.
Short term filter device:
Filter A/P2
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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

(Contd. on page 7)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 6)

GmbH in compliance with EN374.
This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: http://www.kcl.de).

Protective gloves

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

· Material of gloves
Butyl rubber, BR
Nitrile rubber, NBR
Chloroprene rubber, CR
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
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
Camatril (KCL, Art_No. 730, 731, 732, 733)
Dermatril (Art_No. 740, 741, 742)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)

· As protection from splashes gloves made of the following materials are suitable:
Nitrile rubber, NBR
Dermatril (KCL, Art_No. 740, 741, 742)
Camatril (KCL, 730, 731, 732, 733)
Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)

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

· Eye protection:

Tightly sealed goggles

· Body protection:
Protective work clothing

(Contd. on page 8)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 7)

*
SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· General Information	
· Appearance:	
Form:	Fluid
Colour:	Light yellow
· Odour:	Amine-like
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	205 °C
· Flash point:	88 °C
· Ignition temperature:	315 °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 g/cm³
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Viscosity:	
Dynamic at 20 °C:	25 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	29.0 %
Solids content:	0.5 %
· **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 swallowed or in contact with skin.

(Contd. on page 9)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 8)

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)		
Oral	LD50	1,358-1,526 mg/kg
Dermal	LD50	1,268 mg/kg (rabbit)
Inhalative	LC50/4 h	29.1 mg/l

140-31-8 2-piperazin-1-ylethylamine		
Oral	LD50	2,097 mg/kg (rabbit)
		1,470-2,140 mg/kg (rat)
Dermal	LD50	866 mg/kg (rabbit)
		866-1,260 mg/kg (rat)
90640-67-8 Amines, polyethylenepoly-, triethylenetetraamine fraction		
Oral	LD50	1,716 mg/kg (rat)
Dermal	LD50	1,465 mg/kg (rabbit)
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)
84852-15-3 4-nonylphenol, branched		
Oral	LD50	1,210 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	3.636 mg/l (mouse)

· 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 — Based on available data, the classification criteria are not met.
· Carcinogenicity — Based on available data, the classification criteria are not met.
· Reproductive toxicity — Suspected of damaging fertility or the unborn child.
· STOT-single exposure — Based on available data, the classification criteria are not met.
· STOT-repeated exposure — Causes damage to organs through prolonged or repeated exposure.
· Aspiration hazard — Based on available data, the classification criteria are not met.

*
SECTION 12: Ecological information

· **12.1 Toxicity**

· Aquatic toxicity:

140-31-8 2-piperazin-1-ylethylamine	
EC50	511 mg/l (bacteria)
EC50/48h	58 mg/l (daphnia magna)

(Contd. on page 10)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 9)

	494 mg/l (Selenastrum capricornutum)
EC20/0.5h	>1,000 mg/l (BES)
EC50/72h	>1,000 mg/l (pseudomonas putida)
	494 mg/l (Selenastrum capricornutum)
LC50/96h	2,190 mg/l (piscis)
	368 mg/l (Leuciscus idus)
	>100 mg/l (Oncorhynchus mykiss)
	>1,800 mg/l (poecilia reticulata)
90640-67-8 Amines, polyethylenepoly-, triethylenetetraamine fraction	
EC50/48h	31.1 mg/l (daphnia magna)
	3.7 mg/l (Scenedesmus subspicatus)
ErC50/72h	20 mg/l (Pseudokirchneriella subcapitata)
EC50/72h	330 mg/l (pimephales promelas)
	2.2 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	10 mg/l (lepomis macrochirus)
	330 mg/l (pimephales promelas)
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)
84852-15-3 4-nonylphenol, branched	
EC50/96h	0.41 mg/l (green alge)
EC50/48h	0.14 mg/l (daphnia magna)
NOEC/21d	0.024 mg/l (daphnia magna)
EC50/72h	1.3 mg/l (Scenedesmus subspicatus)
LC50/96h	0.135 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.
· Ecotoxical effects:
· Remark: Toxic for fish

(Contd. on page 11)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 10)

· Additional ecological information:
· General notes: Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

· **12.5 Results of PBT and vPvB assessment**
· PBT: Not applicable.
· vPvB: Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

* **SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**
· Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue	
20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 27*	paint, inks, adhesives and resins containing hazardous substances

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

* **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. (TRIETHYLENETETRAMINE, N-AMINOETHYLPIPERAZINE), ENVIRONMENTALLY HAZARDOUS
· IMDG POLYAMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE, N-AMINOETHYLPIPERAZINE), MARINE POLLUTANT
· IATA POLYAMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE, N-AMINOETHYLPIPERAZINE)

· **14.3 Transport hazard class(es)**

· ADR

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

(Contd. on page 12)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 11)

· IMDG

· Class	8 Corrosive substances.
· Label	8

· IATA

· Class	8 Corrosive substances.
· Label	8
· **14.4 Packing group**	
· ADR, IMDG, IATA	II
· **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: Corrosive substances.
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· Stowage Category	A
· Segregation Code	SG35 Stow "separated from" SGG1-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)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· 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. (TRIETHYLENETETRAMINE, N-AMINOETHYLPIPERAZINE), 8, II, 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.

(Contd. on page 13)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 12)

· Seveso category E1 Hazardous to the Aquatic Environment
· Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· Regulation (EU) No 649/2012		
84852-15-3	4-nonylphenol, branched	Annex I Part 1 Annex I Part 2

· National regulations:

· Information about limitation of use: Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57	
84852-15-3	4-nonylphenol, branched

· VOC EU 291.4 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
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.
H361 Suspected of damaging fertility or the unborn child.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very 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)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals

(Contd. on page 14)

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

Printing date 21.05.2019 Version number 8 Revision: 21.05.2019

Trade name: Akepox 1004 Component B

(Contd. of page 13)

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
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
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
Repr. 2: Reproductive toxicity – Category 2
Repr. 2: Reproductive toxicity – Category 2
STOT RE 1: Specific target organ toxicity (repeated exposure) – 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 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