

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

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

1.1 Product identifier

Trade name: **Akepox 1016 Micro Filler Comp. B**

Article number: 11787, 11790, 11793, 11796

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

Hardening agent/ Curing agent
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



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

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

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

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



GHS05

Signal word

Danger

Hazard-determining components of labelling:

reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

Hazard statements

H314 Causes severe skin burns and eye damage.
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.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 1)

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+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
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:

Reg.nr.: 01-2119557899-12	reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Chronic 3, H412	50-100%
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	12.5-25%

· 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. Immediately remove any clothing soiled by the product.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: 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: Drink plenty of water and provide fresh air. Call for a doctor immediately.

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

Breathing difficulty
Dizziness
Headache
Dizziness
Gastric or intestinal disorders
Allergic reactions
Asthma attacks
Nausea

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 3)

- Information about storage in one common storage facility: Prevent any seepage into the ground.
- Further information about storage conditions: Store away from foodstuffs.
- **7.3 Specific end use(s)** Protect from frost.
Store receptacle in a well ventilated area.
Keep container tightly sealed.
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**reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia**

Oral	DNEL (Langzeit-wiederholt)	0.04 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	0.623-2.5 mg/kg bw/day (ARB)
		0.311-1.25 mg/kg bw/day (BEV)

100-51-6 Benzyl alcohol

Oral	DNEL (Kurzzeit-akut)	25 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	5 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	47 mg/kg bw/day (ARB)
		28.5 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	9.5 mg/kg bw/day (ARB)
		5.7 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	450 mg/m ³ Air (ARB)
		40.55 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	22 mg/m ³ Air (ARB)
		8.11 mg/m ³ Air (BEV)

· PNECs**reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia**

PNEC (wässrig)	7.5 mg/l (KA)
	0.0143 mg/l (MW)
	0.015 mg/l (SW)
PNEC (fest)	0.0176 mg/kg Trockengew (BO)
	0.125 mg/kg Trockengew (MWS)
	0.132 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)

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018


Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 4)

- 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.
 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.
 Skin protection agent recommendation for preventive skin shelter without use of protective gloves:
 ARRETIL (<http://www.stoko.com>)
 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:
 SLIG SPEZIAL (<http://www.stoko.com>)
 Skin protection agent recommendation for skin aftercare:
 STOKO VITAN (<http://www.stoko.com>)
 The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.
 This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).
- 

Protective gloves

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

Butyl rubber, BR
 Nitrile rubber, NBR
 Fluorocarbon rubber (Viton)
 Recommended thickness of the material: ≥ 0.4 mm
 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.

(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31


Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 5)

- Penetration time of glove material Value for the permeation: Level \leq 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
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
Butoject (KCL, Art_No. 897, 898)
Nitrile rubber, NBR
Camatril (KCL, 730, 731, 732, 733)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)
- 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:	Fluid
Colour:	Colourless
· <u>Odour:</u>	Ammonia-like

· 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 g/cm³· Solubility in / Miscibility with water: Not miscible or difficult to mix.· Viscosity:· Dynamic: Not determined.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 6)

<u>Kinematic:</u>	Not determined.
· <u>Solvent content:</u>	
<u>Organic solvents:</u>	24.0 %
· 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:** Nitrogen oxides
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:**ATE (Acute Toxicity Estimates)**

Oral	LD50	4,333 mg/kg (mouse)
Dermal	LD50	8,333 mg/kg (rabbit)
Inhalative	LC50/4 h	45.8 mg/l (rat)

reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

Oral	LD50	2,885.3 mg/kg (rat)
	NOAEL-Werte	30 mg/kg (rat)
Dermal	LD50	2,979.7 mg/kg (rabbit)
Inhalative	LC50/8h	>0.74 mg/l (rat)

100-51-6 Benzyl alcohol

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

- 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 Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 7)

- 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.

SECTION 12: Ecological information**· 12.1 Toxicity****· Aquatic toxicity:****reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia**

EC50/96h	>15 mg/l (piscis)
EC50/48h	80-418.34 mg/l (daphnia magna)
ErC50/72h	15 mg/l (green alge)
NOEC	0.32 mg/kg (green alge) 310 mg/kg (bacteria)
EC50/72h	141.72 mg/l (green alge)
LC50/96h	772.14 mg/l (piscis)

100-51-6 Benzyl alcohol

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

· 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:**

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.

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 8)

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.

Uncleaned packaging:**Recommendation:**

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

Recommended cleansing agents:

Diluted caustic solution.

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.
(polyoxyalkylendiamine)

IMDG, IATA

POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(polyoxyalkylendiamine)

14.3 Transport hazard class(es)

ADR



Class

8 (C7) Corrosive substances.

Label

8

IMDG, IATA



Class

8 Corrosive substances.

Label

8

14.4 Packing group

ADR, IMDG, IATA

II

14.5 Environmental hazards:

Marine pollutant:

No

14.6 Special precautions for user

Danger code (Kemler):

80

EMS Number:

F-A,S-B

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.

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 9)

· 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.
 (POLYOXYALKYLENDIAMINE), 8, II

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.
- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
 · VOC EU 240.0 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.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 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

(Contd. on page 11)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.03.2018

Version number 9

Revision: 22.03.2018

Trade name: Akepox 1016 Micro Filler Comp. B

(Contd. of page 10)

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. 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
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

GB