

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.02.2024

Version number 11 (replaces version 10)

Revision: 07.02.2024

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

1.1 Product identifier

Trade name:	Akepox 1016 Micro Filler Komp. A
Article number:	11786,11789,11792,11795
CAS Number:	2530-83-8
EC number:	219-784-2
Registration number	01-2119513212-58
UFI:	5JG2-701H-W006-5WPD

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
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Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Eye Dam. 1 H318 Causes serious eye damage.

Aquatic Chronic 3 H412 Harmful 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. Call a POISON CENTER/doctor if you feel unwell.

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

2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms

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



GHS05

Signal word

Danger

Hazard-determining components of labelling:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane
H318 Causes serious 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.

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P103	Read carefully and follow all instructions.
P273	Avoid release to the environment.
P280	Wear eye protection / face protection.
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.
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.

Determination of endocrine-disrupting properties

For information on endocrine disrupting properties see section 11.

SECTION 3: Composition/information on ingredients**3.1 Substances**

CAS No. Description 2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Identification number(s)

EC number: 219-784-2

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.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

After skin contact:

If skin irritation continues, consult a doctor.

After eye contact:

Immediately wash with water and soap and rinse thoroughly.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulty

Coughing

Allergic reactions

Danger of impaired breathing.

Hazards

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: 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)

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

5.3 Advice for firefighters

Protective equipment:

Wear fully protective suit.

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- Additional information
 - Wear self-contained respiratory protective device.
 - Do not inhale explosion gases or combustion gases.
 - 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.
- **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.
 - Dilute with plenty of water.
 - 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).
 - 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.
 - 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 reducing agents.
- Further information about storage conditions:
 - Store receptacle in a well ventilated area.
 - Protect from frost.
- Storage class:
 - 10
- **7.3 Specific end use(s)**
 - No further relevant information available.

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SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

· Ingredients with limit values that require monitoring at the workplace:

Not required.

· DNELs**2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane**

Oral	DNEL (Langzeit-wiederholt)	12.5 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	21 mg/kg bw/day (ARB)
		12.5 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	21 mg/kg bw/day (ARB)
		5 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	147 mg/m ³ Air (ARB)
		43.5 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	147 mg/m ³ Air (ARB)
		43.5 mg/m ³ Air (BEV)

· PNECs**2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane**

PNEC (wässrig)	8.2 mg/l (KA)
	0.1 mg/l (MW)
	1 mg/l (SW)
	1 mg/l (WAS)
PNEC (fest)	0.14 mg/kg Trockengew (BO)
	0.36 mg/kg Trockengew (MWS)
	3.6 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.
 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.

· 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.

· Hand protection

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>)

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Skin protection agent recommendation for skin aftercare:
STOKO VITAN (<http://www.stoko.com>)



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
Fluorocarbon rubber (Viton)
Vitoject (KCL, Art No. 890)

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.

· Penetration time of glove material

Value for the permeation: Level ≤ 6 ; 480 min

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
Fluorocarbon rubber (Viton)
Vitoject (KCL, Art_No. 890)

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

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/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

· <u>Colour:</u>	Colourless
· <u>Odour:</u>	weak
· <u>Odour threshold:</u>	Not determined.
· <u>Melting point/freezing point:</u>	Undetermined.
· <u>Boiling point or initial boiling point and boiling range</u>	120 °C
· <u>Lower and upper explosion limit</u>	
· <u>Lower:</u>	Not determined.
· <u>Upper:</u>	Not determined.
· <u>Flash point:</u>	62 °C
· <u>Decomposition temperature:</u>	Not determined.
· <u>pH</u>	Not determined.

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· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	1.07 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· 9.2 Other information	No further relevant information available.
· Appearance:	
· Form:	Pasty
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent separation test:	Not applicable
· Molecular weight	236.34 g/mol
· 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	Void
· 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 and stored according to specifications.
· 10.3 Possibility of hazardous reactions	May produce violent reactions with bases and numerous organic substances including alcohols and amines. Strong exothermic reaction with acids. Reacts with reducing agents.
· 10.4 Conditions to avoid	No further relevant information available.

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- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Irritant gases/vapours

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:**

Oral	LD50	7,010 mg/kg (rat)
Dermal	LD50	4,248 mg/kg (rabbit)

2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Oral	LD50	8,025 mg/kg (rat) (OECD 401)
	NOAEL-Werte	≥5 mg/kg (mouse) 200 mg/kg (rabbit) (OECD 414) 500 mg/kg (rat) (OECD 415)
	Dermal	LD50 4,250 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	>5.3 mg/l (rat) (OECD 403)
	NOAEC	0.225 mg/l (rat) (OECD 412)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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**

Substance is not listed.

SECTION 12: Ecological information· **12.1 Toxicity**· **Aquatic toxicity:**

EC50/48h	710 mg/l (daphnia magna)
EC10/5h	1,500 mg/l (pseudomonas putida)
EC50/72h	350 mg/l (Selenastrum capricornutum)
LC50/96h	237 mg/l (Oncorhynchus mykiss)

2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

EC50/96h	350 mg/l (Pseudokirchneriella subcapitata) (OECD 201) >100 mg/l (salmon)
EC50	119 mg/l (algae)
IC50	255 mg/l (Scenedesmus subspicatus)
EC50/48h	324 mg/l (daphnia magna)
EC10/5h	1,500 mg/l (pseudomonas putida)
ErC50/72h	350 mg/l (Selenastrum capricornutum)

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ECO/96h	44 mg/l (Cyprinus carpio)
NOEC	>100 mg/kg (Klärschlamm: Atmungs-/Vermehrungshemmung) (OECD 209)
NOEC/21d	≥100 mg/l (daphnia magna) (OECD 211)
EC50/48h	324-710 mg/l (daphnia magna) (OECD 202)
EC50/72h	255 mg/l (Scenedesmus subspicatus)
LC50/96h	55 mg/l (Cyprinus carpio) (OECD 203)
	276 mg/l (Iem)
	237 mg/l (Oncorhynchus mykiss)

- **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** No further relevant information available.
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:** Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (German Regulation) (Assessment by list): 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

06 00 00	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 08 00	wastes from the MFSU of silicon and silicon derivatives
06 08 99	wastes not otherwise specified

- **Uncleaned packaging:**
- **Recommendation:** Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN number or ID number**
- **ADR, ADN, IMDG, IATA** Void
- **14.2 UN proper shipping name**
- **ADR, ADN, IMDG, IATA** Void
- **14.3 Transport hazard class(es)**
- **ADR, ADN, IMDG, IATA**
- **Class** Void

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· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	Void

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 Substance is not listed.
- 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

Substance is not listed.

· REGULATION (EU) 2019/1148

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

Substance is not listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

· 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 (Assessment by list): hazardous for water.

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

Substance is not listed.

· VOC EU 0.0 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.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· Department issuing SDS: Laboratory

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<ul style="list-style-type: none"> · <u>Date of previous version:</u> · <u>Version number of previous version:</u> · <u>Abbreviations and acronyms:</u> 	<p>10.11.2023</p> <p>10</p> <p>RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)</p> <p>ICAO: International Civil Aviation Organisation</p> <p>ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)</p> <p>IMDG: International Maritime Code for Dangerous Goods</p> <p>IATA: International Air Transport Association</p> <p>GHS: Globally Harmonised System of Classification and Labelling of Chemicals</p> <p>EINECS: European Inventory of Existing Commercial Chemical Substances</p> <p>CAS: Chemical Abstracts Service (division of the American Chemical Society)</p> <p>DNEL: Derived No-Effect Level (REACH)</p> <p>PNEC: Predicted No-Effect Concentration (REACH)</p> <p>LC50: Lethal concentration, 50 percent</p> <p>LD50: Lethal dose, 50 percent</p> <p>PBT: Persistent, Bioaccumulative and Toxic</p> <p>SVHC: Substances of Very High Concern</p> <p>vPvB: very Persistent and very Bioaccumulative</p> <p>Eye Dam. 1: Serious eye damage/eye irritation – Category 1</p> <p>Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3</p>
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