

Printing date 12/12/2005

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* **1 Identification of substance**

· Product details

- Trade name: **Akepox 2010 Component B**
- Article number: 10616, 10623, 10624, 10627, 10598, 10615
- Application of the substance / the preparation Epoxy resin adhesive
- 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
- Information department: Laboratory

* **2 Composition/Data on components**

· Chemical characterization

- Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	25-50%
EINECS: 220-666-8	C; R 21/22-34-43-52/53	
EU Number: 612-067-00-9		
CAS: 100-51-6	Benzyl alcohol	12.5-25%
EINECS: 202-859-9	Xn; R 20/22-43	
EU Number: 603-057-00-5		
CAS: 1477-55-0	m-phenylenebis(methylamine)	<12.5%
EINECS: 216-032-5	C; R 21/22-34-43	
CAS: 25154-52-3	nonylphenol	1-5%
EINECS: 246-672-0	C, N; R 22-34-62-50/53-63	
EU Number: 601-053-00-8		
CAS: 108-95-2	phenol	1-5%
EINECS: 203-632-7	T; R 23/24/25-34-48/20/21/22-68	
EU Number: 604-001-00-2		
	Aminosilane	1-5%
	Xi; R 41-43-52/53	

- Additional information: For the wording of the listed risk phrases refer to section 16.

* **3 Hazards identification**

- Hazard description: C Corrosive
- Information pertaining to particular dangers for man and environment: The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Harmful by inhalation, in contact with skin and if swallowed.
Causes burns.
May cause sensitization by skin contact.
Possible risk of irreversible effects.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- Classification system: The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- NFPA ratings (scale 0 - 4) Health = 3
Fire = 1
Reactivity = 0
- HMIS-ratings (scale 0 - 4) Health = *3
Fire = 1
Reactivity = 0

4 First aid measures

- General information: Immediately remove any clothing soiled by the product.

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- 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: Clean with water and soap. If possible, also wash with polyethylene glycol 400.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

5 Fire fighting measures

- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards caused by the material, its products of combustion or resulting gases: 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)
- Protective equipment: Wear fully protective suit.
Wear self-contained 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.

6 Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection: Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.
- Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- Handling:
- Information for safe handling: Ensure good ventilation/exhaustion at the workplace.
- Information about protection against explosions and fires: No special measures required.
- Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- Storage class: 8

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.

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

1477-55-0 m-phenylenebis(methylamine)REL Short-term value: C 0.1 mg/m³

Skin

TLV Short-term value: C 0.1 mg/m³

Skin

108-95-2 phenolPEL 19 mg/m³, 5 ppm

Skin

REL Short-term value: C 60* mg/m³, C 15.6* ppmLong-term value: 19 mg/m³, 5 ppm

*15-min

TLV 19 mg/m³, 5 ppm

Skin; BEI

· Additional information:

The lists that were valid during the creation were used as basis.

· 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.
Avoid contact with the eyes and skin.

· Breathing equipment:

Do not inhale gases / fumes / aerosols.
Not necessary if room is well-ventilated.

· Protection of hands:

Protective gloves

· Material of gloves

Butyl rubber, BR
Nitrile rubber, NBR
Fluorocarbon rubber (Viton)

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

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

· Eye protection:

Tightly sealed goggles

· Body protection:

Protective work clothing

9 Physical and chemical properties

· General Information

Form:

Pasty
Structurally viscous

Color:

Light yellow
Opaque

Odor:

Amine-like

· Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

Undetermined.

· Flash point:

> 100°C (> 212°F)

· Ignition temperature:

> 350°C (> 662°F)

· Decomposition temperature:

> 250°C (> 482°F)

· Auto igniting:

Product is not selfigniting.

· Danger of explosion:

Product does not present an explosion hazard.

· Density at 20°C (68°F):

~ 1.11 g/cm³

· Solubility in / Miscibility with

Water:

Not miscible or difficult to mix.

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10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous reactions Strong exothermic reaction with acids.
- Dangerous products of decomposition: Corrosive gases/vapors

11 Toxicological information

- Acute toxicity:
 - LD/LC50 values that are relevant for classification:
- 25154-52-3 nonylphenol**
Oral LD50 1620 mg/kg (rat)
- 108-95-2 phenol**
Oral LD50 300 mg/kg (mus)
Dermal LD50 670 mg/kg (rat)
Inhalative LC50/4 h 316 mg/l (rat)
- Primary irritant effect:
 - on the skin: Caustic effect on skin and mucous membranes.
 - on the eye: Strong caustic effect.
 - Sensitization: Sensitization possible through skin contact.
 - Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- Ecotoxicological effects:
- Remark: Harmful to fish
- General notes: Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (Self-assessment): hazardous for water
Harmful to aquatic organisms

13 Disposal considerations

- Product:
- Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

14 Transport information

- DOT regulations:
- Hazard class: 8
- Identification number: UN2735
- Packing group: III
- Proper shipping name (technical name): Polyamines, liquid, corrosive, n.o.s., contains isophoronediamine, m-phenylenebis(methylamine)
- Label 8
- Land transport ADR/RID (cross-border):
- ADR/RID class: 8 (C7) Corrosive substances

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- Danger code (Kemler): 80
- UN-Number: 2735
- Packaging group: III
- Description of goods: 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, m-phenylenebis(methylamine))

- Maritime transport IMDG:
- IMDG Class: 8
- UN Number: 2735
- Label: 8
- Packaging group: III
- EMS Number: F-A,S-B
- Marine pollutant: No
- Propper shipping name: Polyamines, liquid, corrosive, n.o.s., contains isophoronediamine, m-phenylenebis(methylamine)

- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: 8
- UN/ID Number: 2735
- Label: 8
- Packaging group: III
- Propper shipping name: Polyamines, liquid, corrosive, n.o.s., contains isophoronediamine, m-phenylenebis(methylamine)

* 15 Regulations

- Sara
- Section 355 (extremely hazardous substances):
108-95-2 phenol
- Section 313 (Specific toxic chemical listings):
108-95-2 phenol
- TSCA (Toxic Substances Control Act):
All ingredients are listed.
- Proposition 65
- Chemicals known to cause cancer:
None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
- Chemicals known to cause developmental toxicity:
None of the ingredients is listed.
- Cancerogenity categories
- EPA (Environmental Protection Agency)
108-95-2 phenol: D
- IARC (International Agency for Research on Cancer)
108-95-2 phenol: 3
- NTP (National Toxicology Program)
None of the ingredients is listed.
- TLV (Threshold Limit Value established by ACGIH)
108-95-2 phenol: A4
- MAK (German Maximum Workplace Concentration)
108-95-2 phenol: 3
- NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.
- OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.
- Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

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- Hazard symbols: C Corrosive
- Hazard-determining components of labelling: 3-aminomethyl-3,5,5-trimethylcyclohexylamine
phenol
m-phenylenebis(methylamine)
- Risk phrases: Harmful by inhalation, in contact with skin and if swallowed.
Causes burns.
May cause sensitization by skin contact.
Possible risk of irreversible effects.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- Safety phrases: Keep locked up and out of the reach of children.
Do not breathe fumes
Avoid contact with skin and eyes.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
Wear suitable protective clothing, gloves and eye/face protection.
If swallowed, seek medical advice immediately and show this container or label.
- National regulations:
- Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

* 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: Laboratory
- Contact: Dieter Zimmermann
- * Data compared to the previous version altered.