Printing date 01/22/2014

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1 Identification		
Due dought below (101-11		
<ul> <li>Product identifier</li> </ul>		
• Trade name:	Akepox 2010 Component A	
Article number:     Relevant identified uses of the substance or mixture and uses	10616, 10623, 10624, 10615, 10627, 10598	
advised against · Application of the substance / th		
mixture	Epoxy resin adhesive	
Details of the supplier of the s     Manufacturer/Supplier:	afety data sheet 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
<ul> <li>Information department:</li> <li>Emergency telephone number:</li> </ul>	Laboratory Product Safety Department AKEMI chemisch technis 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.	che Spezialfabrik GmbH
2 Hazard(s) identification		
· Classification of the substanc	e or mixture	
GHS07		
Skin Irrit. 2 H315 Causes ski		
Eye Irrit. 2A H319 Causes ser	ious avairritation	
	-	
Skin Sens. 1 H317 May cause	-	
Classification according to Direct	-	
Classification according to Direct	an allergic skin reaction. tive 67/548/EEC or Directive 1999/45/EC	
Classification according to Direct	an allergic skin reaction.	
Classification according to Direct	an allergic skin reaction. tive 67/548/EEC or Directive 1999/45/EC cause sensitization by skin contact.	
Classification according to Direct     Irritant     Irritating to eyes and skin. May c     Dangerous for the environr     Toxic to aquatic organisms, may     Information concerning particula	an allergic skin reaction. <u>tive 67/548/EEC or Directive 1999/45/EC</u> cause sensitization by skin contact. nent v cause long-term adverse effects in the aquatic environm	nent.
Classification according to Direct     Irritant     Irritating to eyes and skin. May c     Dangerous for the environr     Toxic to aquatic organisms, may	an allergic skin reaction. <u>tive 67/548/EEC or Directive 1999/45/EC</u> cause sensitization by skin contact. nent v cause long-term adverse effects in the aquatic environm <u>r</u> Contact with skin and inhalation of aerosols/ vapour be avoided.	rs of the preparation should
Classification according to Direct     Irritant     Irritating to eyes and skin. May c     Dangerous for the environn     Toxic to aquatic organisms, may     Information concerning particula     hazards for human and	an allergic skin reaction. tive 67/548/EEC or Directive 1999/45/EC cause sensitization by skin contact. nent v cause long-term adverse effects in the aquatic environm <u>r</u> Contact with skin and inhalation of aerosols/ vapour	rs of the preparation should n procedure of the "General the latest valid version. est editions of international
<ul> <li>Classification according to Direct</li> <li>Irritant</li> <li>Irritating to eyes and skin. May compared by Dangerous for the environmed to aquatic organisms, may</li> <li>Information concerning particula hazards for human and environment:</li> </ul>	an allergic skin reaction. tive 67/548/EEC or Directive 1999/45/EC cause sensitization by skin contact. nent r cause long-term adverse effects in the aquatic environm <u>r</u> Contact with skin and inhalation of aerosols/ vapour be avoided. The product has to be labelled due to the calculation Classification guideline for preparations of the EU" in The classification was made according to the late	rs of the preparation should n procedure of the "General the latest valid version. est editions of international and literature data.
<ul> <li>Classification according to Direct</li> <li>Irritant</li> <li>Irritating to eyes and skin. May of</li> <li>Dangerous for the environe</li> <li>Toxic to aquatic organisms, may</li> <li>Information concerning particula hazards for human and environment:</li> <li>Classification system:</li> <li>Classification system:</li> <li>GHS label elements</li> </ul>	an allergic skin reaction. tive 67/548/EEC or Directive 1999/45/EC cause sensitization by skin contact. nent r cause long-term adverse effects in the aquatic environm Contact with skin and inhalation of aerosols/ vapour be avoided. The product has to be labelled due to the calculation Classification guideline for preparations of the EU" in The classification was made according to the late substances lists, and expanded upon from company	rs of the preparation should n procedure of the "General the latest valid version. est editions of international and literature data.
<ul> <li>Classification according to Direct</li> <li>Irritant</li> <li>Irritating to eyes and skin. May of</li> <li>Dangerous for the environe</li> <li>Toxic to aquatic organisms, may</li> <li>Information concerning particula hazards for human and environment:</li> <li>Classification system:</li> <li>Label elements</li> </ul>	an allergic skin reaction. tive 67/548/EEC or Directive 1999/45/EC cause sensitization by skin contact. nent r cause long-term adverse effects in the aquatic environm <u>r</u> Contact with skin and inhalation of aerosols/ vapour be avoided. The product has to be labelled due to the calculation Classification guideline for preparations of the EU" in The classification was made according to the late substances lists, and expanded upon from company The product is classified and labeled according to	rs of the preparation should n procedure of the "General the latest valid version. est editions of international and literature data.
<ul> <li>Classification according to Direct</li> <li>Irritant</li> <li>Irritating to eyes and skin. May of</li> <li>Dangerous for the environe</li> <li>Toxic to aquatic organisms, may</li> <li>Information concerning particula hazards for human and environment:</li> <li>Classification system:</li> <li><u>Label elements</u></li> <li><u>GHS label elements</u></li> </ul>	an allergic skin reaction. tive 67/548/EEC or Directive 1999/45/EC cause sensitization by skin contact. nent r cause long-term adverse effects in the aquatic environm Contact with skin and inhalation of aerosols/ vapour be avoided. The product has to be labelled due to the calculation Classification guideline for preparations of the EU" in The classification was made according to the late substances lists, and expanded upon from company The product is classified and labeled according to System (GHS).	rs of the preparation should n procedure of the "General the latest valid version. est editions of international and literature data.
<ul> <li>Classification according to Direct</li> <li>Irritant</li> <li>Irritating to eyes and skin. May of</li> <li>Dangerous for the environe</li> <li>Toxic to aquatic organisms, may</li> <li>Information concerning particula hazards for human and environment:</li> <li>Classification system:</li> <li><u>Label elements</u></li> <li><u>GHS label elements</u></li> </ul>	an allergic skin reaction. tive 67/548/EEC or Directive 1999/45/EC cause sensitization by skin contact. nent r cause long-term adverse effects in the aquatic environm <u>r</u> Contact with skin and inhalation of aerosols/ vapour be avoided. The product has to be labelled due to the calculation Classification guideline for preparations of the EU" in The classification was made according to the late substances lists, and expanded upon from company The product is classified and labeled according to	rs of the preparation should n procedure of the "General the latest valid version. est editions of international and literature data.

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			• ==, = • · · ·
rade name: Akepox 2010 Com	oonent A		
		(Co	ntd. of page 1)
· Hazard-determining compone	ts		
of labeling:		A-(epichlorhydrin) epoxy resin (numb	er average
	reaction product: bisphenol	F-(epichlorhydrin); epoxy resin (numb	er average
	molecular weight $\leq$ 700) 1.6-hexanediol diglycidyl ethe	r	
Hazard statements	H315 Causes skin irritation.	1	
	H319 Causes serious eye irrit	ation.	
	H317 May cause an allergic s		
Precautionary statements	P101 If medical at hand.	advice is needed, have product contain	ner or label
		of reach of children.	
		l before use.	
	P280 Wear prote protection.	ective gloves/protective clothing/eye pro	tection/face
	P261 Avoid brea	athing vapours.	
		S: Rinse cautiously with water for seven	
	Remove c rinsing.	ontact lenses, if present and easy to do	5. Continue
	P333+P313 If skin irrita	ation or rash occurs: Get medical advice,	attention.
		tion persists: Get medical advice/attention	on.
		N: Wash with plenty of soap and water.	11. J 1/
		of contents/container in accordance ational/international regulations.	with local/
· Classification system:	logiona, n		
• NFPA ratings (scale 0 - 4)	Health = 1		
	Fire = $0$		
	1  0  Reactivity = 0		
HMIS-ratings (scale 0 - 4)	HEALTH 1 Health = 1		
	FIRE <b>O</b> Fire = 0		
	Reactivity = 0		
• Other hazards			
<u>Results of PBT and vPvB ass</u> PBT:			
· <u>PDT.</u> · vPvB:	Not applicable. Not applicable.		
B Composition/information or	ingredients		
· Chemical characterization: I	-		
Description:		ed below with nonhazardous additions.	
Dangerous components:			
	action product: hisphonal A (a	pichlorhydrin) epoxy resin (number	50-100%
	verage molecular weight = 700)	picilioniyunin) epoxy resin (number	50-100 %
	🗙 Xi R36/38-43; 🌄 N R51/53		
	Skin Irrit. 2, H315; Eye Irrit. 2, H	319; Skin Sens. 1, H317	
		pichlorhydrin); epoxy resin (number	12.5-25%
	verage molecular weight $\leq$ 700)		
	Xi R38-43; 🚼 N R51/53		
	Skin Irrit. 2, H315; Skin Sens. 1,	H317	40 5 0 50
CAS: 16096-31-4 EINECS: 240-260-4	.6-hexanediol diglycidyl ether		12.5-25%
	Xi R36/38-43 R52/53		

Safety Data Sheet acc. to OSHA HCS

Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317

(Contd. on page 3)



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# Safety Data Sheet acc. to OSHA HCS

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Trade name: Akepox 2010 Component A	
· Additional information:	(Contd. of page 2) For the wording of the listed risk phrases refer to section 16.
4 First-aid measures	
· Description of first aid measure	8
General information:	Take affected persons out into the fresh air.
	Position and transport stably on side.
· <u>After inhalation:</u>	Immediately remove any clothing soiled by the product. 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.
After eye contact:	Immediately wash with water and soap and rinse thoroughly. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:	Rinse out mouth and then drink plenty of water.
Information for doctor:	Bisphenol-A based resins: Inhalation, swallowing or dermal incorporation may cause health damage. Irritates respiratory tract, digestion system, eyes and skin: e.g., cough, dyspnea, lacrimation, burning. May cause health interferences such as dermal changes, renal, hepatic damage, and blood count changes. May provoke skin allergies. Sensitized users can react towards very low concentrations of Bisphenol-A-Epichlorhydrine and should avoid any further contact with this chemical.
	The sensitizing effect of epoxide based resins is mainly caused by the concentration of epoxy resin polymers with a specific molecular weight $\leq$ 300. The observed allergic dermal and respiratory appearances should be treated symptomatically in dependence of the severity. An epoxy resin based allergic disease belongs to a cell mediated (interaction of lymphocytes) type IV allergy.
<ul> <li>Most important symptoms and effects, both acute and delayed</li> </ul>	Breathing difficulty
	Headache Dizziness
	Nausea
	Allergic reactions
- <u>Danger</u>	Danger of impaired breathing. Skin contact with polyester and epoxy resin solutions as ingredient of the product should be avoided due to risks of skin irritations or allergic skin appearances. If occasional hand contact can not be avoided, protection gloves,
	proper protection ointments and protective agents generating a protective layer on the skin were applied.
<ul> <li>Indication of any immediate medical attention and special</li> </ul>	
treatment needed	If swallowed, gastric irrigation with added, activated carbon.
5 Fire-fighting measures	
· Extinguishing media	
Suitable extinguishing agents:	CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
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) In certain fire conditions, traces of other toxic gases cannot be excluded.
· Advice for firefighters	
Protective equipment:	Wear fully protective suit. Wear self-contained respiatory protective device. Do not inhale explosion gases or combustion gases.
	Contd. on page 4)

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Trade name: Akepox 2010 Component A	
· Additional information	(Contd. of page 3) 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	
· Personal precautions, protective	2
equipment and emergency procedures	Ensure adequate ventilation
procedures	Use respiratory protective device against the effects of fumes/dust/aerosol.
· 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.
· Methods and material for	Do not allow to enter sewers/ surface or ground water.
containment and cleaning up:	Dispose of the collected material according to regulations. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.
· 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.
<ul> <li><u>Handling:</u></li> <li>Precautions for safe handling</li> <li>Information about protection</li> </ul>	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.
against explosions and fires:	No special measures required.
· Conditions for safe storage, incl	uding any incompatibilities
<ul> <li>Storage:</li> <li>Requirements to be met by</li> </ul>	
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. Store away from foodstuffs.
Further information about storage conditions:	Store receptacle in a well ventilated area.
· Specific end use(s)	Keep receptacle tightly sealed. No further relevant information available.
8 Exposure controls/personal pro	tection
<ul> <li>Additional information about design of technical systems:</li> </ul>	No further data; see item 7.
Control parameters     Components with limit values that     require monitoring at the	The product does not contain only relevant quantities of materials with spitias.
workplace:	The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
	(Contd. on page 5)

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rade name: Akepox 2010 Component A	
Additional information:	(Contd. of page 4) The lists that were valid during the creation were used as basis.
<ul> <li>Exposure controls</li> <li>Personal protective equipment:</li> <li>General protective and hygienic</li> </ul>	
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. 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.
Breathing equipment:	Avoid contact with the eyes and skin. Not necessary if room is well-ventilated. Short term filter device: Filter A/P2
• Protection of hands:	In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air. Preventive skin protection by use of skin-protecting agents is recommended. After use of gloves apply skin-cleaning agents and skin cosmetics. Akemi skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves: STOKO EMULSION (http://www.stoko.com) Akemi skin protection recommendation for skin cleaning after product handling: SLIG SPEZIAL (http://www.stoko.com) Akemi 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).
<ul> <li><u>Material of gloves</u></li> </ul>	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 Butyl rubber, BR Chloroprene rubber, CR Nitrile rubber, NBR 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)



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Trade name: Akepox 2010 Compone	ent A
	(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
<u>sunable.</u>	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)
<ul> <li>As protection from splashes gloves</li> </ul>	<u>3</u>
made of the following materials are suitable:	e Nitrile rubber, NBR
Sullable.	Dermatril (KCL, Art No. 740, 741, 742) Camatril (KCL, 730, 731, 732, 733) Chloroprene rubber, CR
Not suitable are gloves made of	Camapren (KCL, Art No. 720, 722, 726)
the following materials:	Leather gloves
	Strong gloves
<u>Eye protection:</u>	Tightly sealed goggles
<ul> <li>Body protection:</li> </ul>	Protective work clothing
9 Physical and chemical propertie	
General Information	
<ul> <li><u>Appearance:</u> Form:</li> </ul>	Pasty
	Structurally viscous
<u>Color:</u>	Light yellow
· Odor:	Opaque Characteristic
· pH-value:	Not applicable
Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. > 200 °C (> 392 °F)
· Flash point:	Not applicable.
Ignition temperature:	400 °C (752 °F)
Decomposition temperature:	> 200 °C °C (> 392 °C °F)
<u>Auto igniting:</u>	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
· Vapor pressure at 20 °C (68 °F):	2 hPa (2 mm Hg)
Density at 20 °C (68 °F):	1.18 g/cm <sup>3</sup> (9.847 lbs/gal)
<ul> <li>Specific gravity at 20 °C (68 °F):</li> </ul>	1.18 g/cm <sup>3</sup> (9.847 lbs/gal)
	(Contd. on page 7)

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Trade name: Akepox 2010 Compo	onent A
	(Contd. of page 6
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Viscosity:	
Dynamic:	Not determined.
<u></u>	Not applicable
Kinematic:	Not determined.
	Not applicable
Solvent content:	
Organic solvents:	0.0 %
<ul> <li>Other information</li> </ul>	No further relevant information available.
10 Stability and reactivity	
·Reactivity	
Chemical stability	
Thermal decomposition /	
conditions to be avoided:	No decomposition if used and stored according to specifications.
· Possibility of hazardous	·····
reactions	May produce violent reactions with bases and numerous organic substances
	including alcohols and amines.
	Reacts with reducing agents.
	Reacts with strong acids.
Conditions to avoid	No further relevant information available.
Incompatible materials:	No further relevant information available.
Hazardous decomposition	

#### products:

Irritant gases/vapors

### 11 Toxicological information

# • Information on toxicological effects • Acute toxicity:

· LD/LC50 values that are relevant for classification:

25068-38		on product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight
	= 700)	
Oral	LD50	20000 mg/kg (mouse)
		19800 mg/kg (rabbit)
		11400 mg/kg (rat)
	NOEL	540 mg/kg (rat) (OECD 416)
Dermal	LD50	1270 mg/kg (mouse)
		> 2000 mg/kg (rabbit)
		> 1200 mg/kg (rat)
9003-36-	5 reaction	n product: bisphenol F-(epichlorhydrin); epoxy resin (number average molecular weight
	<b>≤ 700)</b>	
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
		>2000 mg/kg (rat)
16096-31	-4 1.6-hex	canediol diglycidyl ether
Oral	LD50	1400 mg/kg (mouse)
		2900 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)
	-	(Contd. on page 8

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Trade name:	Akepox 20	10 Component A
		(Contd. of page 7)
Inhalative	LC50/4 h	>100 mg/l (mouse)
	LC50/48h	23.1 mg/l (green alge)
Primary irr	itant effect:	
<ul> <li>on the skin</li> </ul>	<u>1:</u>	Irritant to skin and mucous membranes.
<ul> <li>on the eye</li> </ul>	:	Irritating effect.
<ul> <li>Sensitizati</li> </ul>	on:	Sensitization possible through skin contact.
<ul> <li>Additional</li> </ul>	toxicologic	al
informatior		The product shows the following dangers according to internally approved calculation methods for preparations: Irritant
· Carcinoge	nic categor	ies
<ul> <li>IARC (Inte</li> </ul>	rnational A	gency for Research on Cancer)
None of the	e ingredier	ts is listed.

· NTP (National Toxicology Program) None of the ingredients is listed.

### **12 Ecological information**

### · Toxicity

•	Aq	uatic	toxicity:	
---	----	-------	-----------	--

<ul> <li>Aquatic to:</li> </ul>	xicity:
25068-38-	6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight
	= 700)
	1.1-3.6 mg/l (daphnia magna)
EC50/48h	2.8 mg/l (daphnia magna)
EC50/72h	9.4 mg/l (selenastrum capricornutum)
EC50/96h	220 mg/l (green alge)
	3.6 mg/l (Leuciscus idus)
IC50	>100 mg/l (bacteria)
LC50/96h	1.3 mg/l (piscis)
	1.5 mg/l (Oncorhynchus mykiss) (OECD 203)
	1.5-7.7 mg/l (rainbow trout)
NOEC	0.3 mg/kg (daphnia magna) (OECD 211)
9003-36-5	reaction product: bisphenol F-(epichlorhydrin); epoxy resin (number average molecular weight
	≤ 700)
	1.6 mg/l (daphnia magna) (OECD 202: Part I)
EC50/72h	1.8 mg/l (green alge) (OECD 201)
IC50	>100 mg/l (bacteria)
LC50/96h	0.55 mg/l (piscis) (OECD 203)
NOEC	0.3 mg/kg (daphnia magna) (OECD 211)
16096-31-	4 1.6-hexanediol diglycidyl ether
EC50/48h	67 mg/l (daphnia magna)
LC50/72h	30 mg/l (Oncorhynchus mykiss)
LC50/96h	1.1 mg/l (goo)
	17-31 mg/l (Oncorhynchus mykiss)
· Persisten	ce and degradability No further relevant information available.
	in environmental systems:
Bioaccumu     Mobility in	ulative potential No further relevant information available. soil No further relevant information available.
	(Contd. on page 9)
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ade name: Akepox 2010 Compon	nent A
	(Contd. of page
Ecotoxical effects:	<b>—</b>
· <u>Remark:</u>	Toxic for fish
Additional ecological information	
· General notes:	Do not allow product to reach ground water, water course or sewage system.
	Water hazard class 2 (Self-assessment): hazardous for water Also poisonous for fish and plankton in water bodies.
	Toxic for aquatic organisms
· Results of PBT and vPvB asses	
• PBT:	Not applicable.
· vPvB:	Not applicable.
· Other adverse effects	No further relevant information available.
3 Disposal considerations	
· Waste treatment methods	
<ul> <li>Recommendation:</li> </ul>	Must not be disposed of together with household garbage. Do not allow produ
	to reach sewage system.
· Uncleaned packagings:	
· Recommendation:	Empty contaminated packagings thoroughly. They can be recycled aft
	thorough and proper cleaning.
· Recommended cleansing agent:	Alcohol
	acetone
4 Transport information	
· UN-Number	
· DOT, ADR, IMDG, IATA	UN3082
· UN proper shipping name	
· DOT	Environmentally hazardous substances, liquid, n.o.s. (reactio
	product: bisphenol-A-(epichlorhydrin) epoxy resin (number averag
	molecular weight = 700), reaction product: bisphenol F-(ep
	chlorhydrin); epoxy resin (number average molecular weight $\leq$ 700))
· <u>ADR</u>	3082 Environmentally hazardous substances, liquid, n.o.s. (reaction
	product: bisphenol-A-(epichlorhydrin) epoxy resin (number averag
	molecular weight = 700), reaction product: bisphenol F-(ep
·IMDG	chlorhydrin); epoxy resin (number average molecular weight ≤ 700)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.\$
	(reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number
	average molecular weight = 700), reaction product: bisphenol F-(ep
	chlorhydrin); epoxy resin (number average molecular weight $\leq$ 700)
	MARINE POLLUTANT
· IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
	(reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number
	average molecular weight = 700), reaction product: bisphenol F-(ep
	chlorhydrin); epoxy resin (number average molecular weight $\leq$ 700))
<ul> <li>Transport hazard class(es)</li> </ul>	
· DOT, IMDG, IATA	
	9 Miscellaneous dangerous substances and articles.

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	(Contd. of page
Label	9
ADR	
Class Label	9 (M6) Miscellaneous dangerous substances and articles 9
Packing group DOT, ADR, IMDG, IATA	111
Environmental hazards:	Product contains environmentally hazardous substances:
Marine pollutant:	Yes
Special marking (ADR):	Symbol (fish and tree) Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
Special precautions for user	Warning: Miscellaneous dangerous substances and articles
Danger code (Kemler):	90
Transport in bulk according to Annex	
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Remarks:	Special marking with the symbol (fish and tree).
UN "Model Regulation":	UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (numb average molecular weight = 700), reaction product: bisphenol F-(epichlorhydrin); epoxy resin (number average molecular weight $\leq$ 700 9, III

### 15 Regulatory information

 $\cdot$  Safety, health and environmental regulations/legislation specific for the substance or mixture  $\cdot$  Sara

Section 355 (extremely hazardous substances):	
None of the ingredient is listed.	
Section 313 (Specific toxic chemical listings):	
None of the ingredients is listed.	
<u>TSCA (Toxic Substances Control Act):</u>	
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.	
<u>Chemicals known to cause reproductive toxicity for males:</u>	
None of the ingredients is listed.	
Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
(Contd. o	n page 11) USA –

acc. to OSHA HCS



USA

Reviewed on 01/22/2014

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Trade name: Akepox 2010 Component A (Contd. of page 10) Cancerogenity categories EPA (Environmental Protection Agency) None of the ingredients is listed. · TLV (Threshold Limit Value established by ACGIH) None of the ingredients is listed. · MAK (German Maximum Workplace Concentration) None of the ingredients is listed. · 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. · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). Hazard pictograms GHS07 Signal word Warning · Hazard-determining components reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average of labeling: molecular weight = 700) reaction product: bisphenol F-(epichlorhydrin); epoxy resin (number average molecular weight  $\leq$  700) 1.6-hexanediol diglycidyl ether · Hazard statements H315 Causes skin irritation. H319 Causes serious eve irritation. H317 May cause an allergic skin reaction. · 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. P280 Wear protective gloves/protective clothing/eye protection/face protection. P261 Avoid breathing vapours. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P501 Dispose of contents/container in accordance with local/ regional/national/international regulations. · National regulations: Information about limitation of use: Employment restrictions concerning young persons must be observed. Employment restrictions concerning pregnant and lactating women must be observed. · Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water. (Contd. on page 12) VOC USA

Printing date 01/22/2014

Reviewed on 01/22/2014

Trade name: Akepox 2010 Component A		
· Chemical safety assessment:	(Contd. of page 11) The VOC of the materials was determined in accordance with procedures outlined in EPA Method 24, "Determination of Volatile Matter, Water Content, Volume Solid of Surface Coatings". The VOC was calculated using the equations referenced in ASTM D 3960, "Determination of Volatile Organic Compound (VOC) Content of Paints and Related Coatings". 0.0 g/l A Chemical Safety Assessment has not been carried out.	
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:     Contact:	Laboratory Dieter Zimmermann Elke Hake Fon ++49 (0)911 64296-59 @mail E.Hake@akemi.de 01/22/2014 / -	
<ul> <li><u>Date of preparation / last revision</u></li> <li><u>Abbreviations and acronyms:</u></li> </ul>	<ul> <li>OT/22/2014/1 -</li> <li>RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)</li> <li>ICAO: International Civil Aviation Organization</li> <li>ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</li> <li>IMDG: International Maritime Code for Dangerous Goods</li> <li>DOT: US Department of Transportation</li> <li>IATA: International Air Transport Association</li> <li>ACGIH: American Conference of Governmental Industrial Hygienists</li> <li>EINECS: European List of Notified Chemical Substances</li> <li>CAS: Chemical Abstracts Service (division of the American Chemical Society)</li> <li>NFPA: National Fire Protection Association (USA)</li> <li>HMIS: Hazardous Materials Identification System (USA)</li> <li>LC50: Lethal concentration, 50 percent</li> <li>LD50: Lethal dose, 50 percent</li> </ul>	

