

Material Safety Data Sheet

According to EC directive 2001/58/EC

Product name:	Aka-Cure, Quick	Page:	1/5
Last revised date:	20-04-2005	Print date:	20-04-2005
Art.-no.:	8590	Template:	1.0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name:	Aka-Cure, Quick		
Application:	Epoxy curing agent	Container size:	300 ml
Supplier:	AKASEL ApS Vanløse Sand 2 DK-4370 St. Merløse Tel +45 57 84 05 01 Fax +45 57 84 06 01		

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name:	CAS-No.:	%:	Hazard classification:	Notes:
Methylenebiscyclohexanamine, 4,4'-	1761-71-3	>99	Xn; R21; C, R34; R43; R52/53	

3. HAZARDS IDENTIFICATION

Corrosive. Harmful in contact with skin. Causes burns. May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST-AID MEASURES

Inhalation:	Move into fresh air and keep at rest
Skin contact:	Immediate, continued and thorough washing in flowing water for at least 30 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash clothing before reuse. Destroy contaminated leather items.
Eye contact:	Immediately flush with plenty of water for at least 30 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring along these instructions.
Ingestion:	Prevent aspiration of vomit. Turn victim's head to the side.
Note to Physician	Application of corticosteroid cream has been effective in treating skin irritation.

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water
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fog. Cool containers exposed to heat with water spray and remove container if no risk is involved

Hazardous Combustion

Products: Combustion products may include and are not limited to: Nitrogen oxides. Carbon dioxide. Carbon monoxide.

Protective equipment Use air-supplied respirator during fire fighting

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Wear adequate personal protective equipment, see Section 8, EXPOSURE CONTROLS/PERSONAL PROTECTION.
Environmental precautions:	Contain liquid to prevent contamination of soil, surface water or ground water.
Methods for cleaning up:	use non-combustible absorbent material/sand and shovel into appropriate containers.

7. HANDLING AND STORAGE

Safe handling advice: Avoid eye and skin contact. Avoid breathing vapours. Avoid breathing mists. Avoid generation of aerosols.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:	Engineering controls should be used whenever feasible to maintain concentrations below acceptable exposure limits, including but not limited to enclosures, local ventilation, and dilution ventilation. Ensure eyewash station is available
Respiratory equipment:	Wear appropriate respirator when ventilation is inadequate.
Hand protection:	Use chemical resistant gloves classified under standard EN 374: Protective gloves against chemicals and micro-organisms.
Eye protection:	Risk of contact: Wear goggles/face shield
Skin protection:	Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, gloves, boots, apron, or full body-suit will depend on operation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light transparent liquid

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Odour:	Ammonia like
pH:	12
Boiling point:	320°C
Flash point:	>100°C
Flammable limits:	Lower > 1.6 vol%, Upper <3.6 vol%
Relative density:	0.98 (Water = 1.0)
Solubility:	Insoluble in water.

10. STABILITY AND REACTIVITY

Stability: Stable under normal handling and storage conditions, see Section 7, Handling and Storage.

Conditions/

materials to avoid: Organic Acids. Mineral acids. Oxidising agents

11. TOXICOLOGICAL INFORMATION

Inhalation: May cause allergic respiratory response. Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

Skin contact: Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.

Skin contact has caused allergic skin reactions in humans.

Eye contact: May cause pain disproportionate to the level of irritation to eye tissues. May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Ingestion: Low toxicity if swallowed. The oral LD50 for rats is 625 mg/kg. causing tissue damage or lung injury.

Inhalation: No data is available on the product itself.

Specific effects:

12. ECOLOGICAL INFORMATION

Mobility: Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). Log octanol/water partition coefficient (log Pow) is estimated

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using a structural fragment method to be -2.65. Henry's Law Constant (H) is estimated to be 5.21E-10 atm.m³/mol. Potential for mobility in soil is very high (Koc between 0 and 50). Soil organic carbon/water partition coefficient (Koc) is estimated to be 4.1-310.

Degradability: Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EC tests for ready biodegradability. Biodegradation reached in Closed Bottle Test after 20 days: 0 %. Biodegradation reached in Modified Zahn-Wellens/EMPA Test (OECD Test No. 302 B) after 28 days: 0 %.

Ecotoxicity: Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in most sensitive species). Growth inhibition EC50 for green algae *Selenastrum capricornutum* is 3.7 mg/L. Acute LC50 for water flea *Daphnia magna* is 12-40 mg/L. Acute LC50 for fathead minnow (*Pimephales promelas*) is 330-495 mg/L. Acute LC50 for golden orfe (*Leuciscus idus*) is 200-500 mg/L. Growth inhibition EC50 in algae *Scenedesmus* species is 2.5 mg/L. The 16 hour growth inhibition EC50 in bacteria is 680 mg/L. May increase pH of aqueous systems to more than 10 which may be toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Dispose of waste and residues according to agreement with local authorities..

14. TRANSPORT INFORMATION

UN-number:	UN2735
Proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Methylenebiscyclohexanamine, 4,4'-
Sea (IMDG):	Class: 8/II EmS: 8
Land (RID/ADR):	Class: 8
Air (ICAO/IATA):	Class: 8 Pack Instr. Passenger : 808 Pack Instr. Cargo : 812:

15. REGULATORY INFORMATION

Labelling:

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R/S sentece(s):

Xn; R21; C, R34; R43; R52/53

Specific provisions: TSCA: Listed.

16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.