



Distributor: Mager Scientific
1100 Baker Rd.
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Dexter MI 48130-0160

Phone: (734) 426-3885

Distributor Product No.

CM-8510 CM-8520

Manufacturer: Akasel Asp
Manufacturer Product No.: 8510 Aka Resin

Dear Customer:

In order to comply with the Hazard Communication Law which went into effect November 25, 1985, and the Globally Harmonized System (GHS) regulation update introduced by the Occupational Safety and Health Administration (OSHA) in 2015, attached is the safety data sheet pertaining to our product noted above.

Additional sheets are available upon request. Please feel free to contact us if we can be of further assistance.

Sincerely,

Mager Scientific, Inc.
Customer Service

Material Safety Data Sheet

According to EC directive 2001/58/EC

Product name:	Aka-Resin	Page:	1/5
Last revised date:	20-04-2005	Print date:	20-04-2005
Art.-no.:	8510 - 8520	Template:	1.0

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

Product name:	Aka-Resin		
Application:	Epoxy resin	Container size:	1 l, 5 l
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:
Bisphenol-A	025068-38-6	>50	Xi; R36/38, R43, N;R51/53	
Cresyl glycidyl ether	026447-14-3	<50	Mut.C.3; R68, Xi;R38, R43, N; R51/53	

3. HAZARDS IDENTIFICATION

Irritating to eyes and skin. May cause sensitization by skin contact. Possible risks of irreversible effects. Toxic 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 if effects occur, consult a physician.
Skin contact:	Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse. Remove residues with soap and water.
Eye contact:	Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring along these instructions.
Ingestion:	Do not induce vomiting. Give one glass (ca. 2.5 dL) of water or milk if available and transport to medical facility. Do not give anything by mouth to an unconscious person.
Note to Physician	If burn is present, treat as any thermal burn, after decontamination. Due to irritant properties, swallowing may result in burns/ulceration

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of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Cool containers exposed to heat with water spray and remove container if no risk is involved
Hazardous Combustion Products:	Under conditions of incomplete combustion or pyrolysis, phenolics and carbon oxides may be evolved. The thermal decomposition products therefore should be treated as potentially hazardous substances and appropriate precautions should be taken.
Protective equipment	Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves).

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.
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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
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Respiratory equipment: For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved airpurifying respirator.

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. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light transparent liquid

Odour: none

pH: not applicable

Boiling point: decomposes prior to boiling

Flash point: 121 deg.C (ASTM D93)

Flammable limits: Lower > 1.6 vol%, Upper <3.6 vol%

Relative density: 1.11 - 1.16 (Water = 1.0)

Solubility: <1 %wt (25 deg.C).

10. STABILITY AND REACTIVITY

Stability: Stable under normal handling and storage conditions

Conditions/ materials to avoid: Acids. Amines. Bases. Oxidising agents. Mixture with these materials will result in a temperature and/or pressure increase.

11. TOXICOLOGICAL INFORMATION

Inhalation: A single brief (minutes) inhalation exposure is not likely to cause adverse effects. Excessive inhalation exposure to vapours or aerosols may cause serious adverse effects.

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Skin contact: Brief contact may cause skin irritation with local redness. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe response on covered skin (under clothing, gloves)..

Eye contact: May cause slight eye irritation. Corneal injury is unlikely.

Ingestion: Low toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.
The oral LD50 for rats is >2000 mg/kg. Ingestion may cause gastrointestinal irritation or ulceration.

12. ECOLOGICAL INFORMATION

Mobility: Resin: Partitioning from water to n-octanol is not applicable. For the minor component(s): Bioconcentration potential is low (BCF less than 100 or log Pow less than 3).

Degradability: Based on the stringent OECD test guidelines, this material can not be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Ecotoxicity: Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in most sensitive species). For the minor component(s): Acute LC50 for rainbow trout (*Onchorynchus mykiss*) is 7.5 mg/L. Acute EC50 for water flea *Daphnia magna* is 3.3 mg/L.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

UN-number: 3082 **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)

Sea (IMDG): **Class:** 9/3
 EmS: 9/3

Land (RID/ADR): **Class:** 9/3

Air (ICAO/IATA): **Class:** 8 Pack Instr. Passenger : 914 Pack Instr. Cargo : 914

15. REGULATORY INFORMATION

Material Safety Data Sheet

According to EC directive 2001/58/EC

Product name: Aka-Resin
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Template: 1.0

Labelling:



R/S sentece(s):

Irritating to eyes and skin (R36/38).

May cause sensitisation by skin contact (R43).

Possible risk of irreversible effects (R68).

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R51/53).

Avoid contact with skin (S24).

Wear suitable protective clothing, gloves and eye/face protection (S36/37/39).

Avoid release to the environment. Refer to special instructions/Safety data sheet (S61)..

16. OTHER INFORMATION

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

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Aka-Resin

Product no.

8510-8520

REACH registration number

Not applicable

Other means of identification

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Liquid epoxy resin for embedding of metallographic samples

Uses advised against

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The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

AKASEL ApS
Svogerslev Hovedgade 48
DK-4000 Roskilde
tlf: +45 57 84 05 01
fax: +45 57 84 06 01

Contact person

Morten J. Damgaard

E-mail

info@akasel.com

SDS date

11-07-2014

SDS Version

1.0

1.4. Emergency telephone number

Use your national or local emergency number
See section 4 "First aid measures"

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Sens. 1, Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 2, Muta. 2 // H411, H341, H319, H317, H315
See full text of H/R-phrases in section 2.2.

DPD/DSD Classification

Harmful (Xn). Dangerous for the environment (N).
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R51/53).
Irritating to eyes and skin (R36/38). Possible risk of irreversible effects (R68). May cause sensitisation by skin contact (R43).

2.2. Label elements

Hazard pictogram(s)

According to EC-Regulation 1907/2006 (REACH)



Signal word

Warning!

Hazard statement(s)

- Causes skin irritation. (H315)
- May cause an allergic skin reaction. (H317)
- Causes serious eye irritation. (H319)
- Suspected of causing genetic defects. (H341)
- Toxic to aquatic life with long lasting effects. (H411)

Safety statement(s)	General	-
	Prevention	Obtain special instructions before use. (P201) Use personal protective equipment as required. (P281)
	Response	IF ON SKIN: Wash with plenty of soap and water. (P302+P352) IF exposed or concerned: Get medical advice/attention. (P308+P313)
	Storage	Store locked up. (P405)
	Disposal	Dispose of contents/container to an approved waste disposal plant. (P501)

Identity of the substances primarily responsible for the major health hazards

Bisphenol A, epichlorohydrin polymer, Cresyl glycidyl ether

2.3. Other hazards

This product contains an organic solvent. Repeated exposure to organic solvents can result in damage to the nervous system and inner organs, such as the liver and kidneys.

Additional labelling

Contains epoxy compounds. See information supplied by the manufacturer.

Additional warnings

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VOC

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SECTION 3: Composition/information on ingredients

3.1/3.2. Substances

NAME:	Bisphenol A, epichlorohydrin polymer
IDENTIFICATION NOS.:	CAS-no: 25068-38-6 EC-no: 500-033-5 Index-no: 603-074-00-8
CONTENT:	>50%
DSD CLASSIFICATION:	Xi; R36/38 R43 N; R51-53
CLP CLASSIFICATION:	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2 H315, H317, H319, H411
NOTE:	H
NAME:	Cresyl glycidyl ether
IDENTIFICATION NOS.:	CAS-no: 26447-14-3 EC-no: 247-711-4 Index-no: 603-056-00-X
CONTENT:	<50%
DSD CLASSIFICATION:	Muta. Cat. 3; R68 Xi; R38 R43 N; R51-53
CLP CLASSIFICATION:	Skin Irrit. 2, Skin Sens. 1, Muta. 2, Aquatic Chronic 2 H315, H317, H341, H411
NOTE:	HS

(*) See full text of H/R-phrases in chapter 16. Occupational limits are listed in section 8, if these are available.
S = Organic solvent H = Epoxy resin

Other informations

SECTION 4: First aid measures

According to EC-Regulation 1907/2006 (REACH)

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person's condition or if the symptoms continue. Never give an unconscious person water or similar.

Inhalation

Get the person into fresh air and stay with them.

Skin contact

Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

Eye contact

Remove contact lenses. Flush eyes with water (20-30°C) for at least 15 minutes. Call a doctor.

Ingestion

In the case of ingestion, contact a doctor immediately and take this safety data sheet or the label from the material with you. If the person is conscious, give them water. DO NOT try to induce vomiting, unless this is recommended by a doctor. Hold head facing down so that no vomit runs back into the mouth and throat. Prevent shock by keeping the injured person warm and calm. Give mouth-to-mouth resuscitation if breathing stops. If unconscious, roll the injured person onto side with the top leg bent at both knee and hip. Call an ambulance.

Burns

Rinse with water until the pain stops and continue for 30 minutes.

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

Neurotoxic effect: This product contains organic solvents, which can have an effect on the nervous system. Symptoms of neurotoxicity can be: loss of appetite, headache, dizziness, whistling in the ears, tingling sensations in the skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer. The skin will then be more prone to absorb dangerous substances, e.g. allergens.

Sensitivity effects: This product contains substances which can give an allergic reaction on contact with skin. The allergic reaction will typically set in 12-72 hours after exposure as the substance penetrates the skin and reacts with proteins in the outer skin. The body's immune system sees the chemically changed protein as a foreign body and will try to destroy it.

Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, as in the case of fire, dangerous catabolic substances are produced. These are: Carbon oxides. Fire will result in thick black smoke. Exposure to catabolic products can damage your health. Fire fighters should use proper protection gear. Closed containers, which are exposed to fire, should be cooled with water. Do not let fire-extinguishing water run into sewers and other water courses.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

According to EC-Regulation 1907/2006 (REACH)

EWC code

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Specific labelling

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Contaminated packing

Packaging which contains leftovers from the product must be disposed of in the same way as the product.

SECTION 14: Transport information

This product is covered by the conventions on dangerous goods.

14.1 – 14.4

ADR/RID	14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)		14.4. Packing group		Notes
	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cresyl glycidyl ether, Bisphenol A, epichlorohydrin polymer)	9		III		-
IMDG	UN-no.	Proper Shipping Name	Class	PG*	EmS	MP**	Hazardous constituent
	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cresyl glycidyl ether, Bisphenol A, epichlorohydrin polymer)	9	III	F-A, S-F	Yes	-
IATA/ICAO	UN-no.	Proper Shipping Name	Class	PG*			

14.5. Environmental hazards

This product contains substances which can cause undesirable long-term effects in the water environment, due to its poor biodegradability.

14.6. Special precautions for user

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14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application

People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC.

Demands for specific education

The user of this product must have taken special training in working with polyurethane and epoxy products.

Additional information

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Sources

EC regulation 1907/2006 (REACH)

Directive 2000/532/EC

EC Regulation 1272/2008 (CLP)

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H/R-phrases as mentioned in section 3

According to EC-Regulation 1907/2006 (REACH)

R38 - Irritating to skin.
R43 - May cause sensitisation by skin contact.
R51 - Toxic to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.
R68 - Possible risk of irreversible effects.
R36/38 - Irritating to eyes and skin.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H341 - Suspected of causing genetic defects.
H411 - Toxic to aquatic life with long lasting effects.

The full text of identified uses as mentioned in section 1

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Other symbols mentioned in section 2

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Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
A change (in proportion to the last essential change (first cipher in SDS version)) is marked with a blue triangle.

The safety data sheet is validated by

AW /CHYMEIA

**Date of last essential change
(First cipher in SDS version)**

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**Date of last minor change
(Last cipher in SDS version)**

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