

SAFETY DATA SHEET

Aka-Resin Liquid Epoxy

SECTION 1: Identification

1.1. Product identifier

Trade name

Aka-Resin Liquid Epoxy

Product no.

25101115 - 25101117 (8510-8520)

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
Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Akasel A/S

Svogerslev Hovedgade 48
4000 Roskilde
Denmark
+45 57 84 05 01
www.akasel.com

E-mail

safety@akasel.com

SDS date

9/4/2025

SDS Version

4.0

Date of previous version

11/12/2023 (3.0)

1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case
See also section 4 "First aid measures".

SECTION 2: Hazard(s) identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

2.1. Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.
Skin Sens. 1; H317, May cause an allergic skin reaction.
Eye Irrit. 2; H319, Causes serious eye irritation.

2.2. Label elements

Hazard pictogram(s)



Signal word

Warning

Hazard statement(s)

Causes skin irritation. (H315)

May cause an allergic skin reaction. (H317)

Causes serious eye irritation. (H319)

Precautionary statement(s)

▼ General

Not applicable.

▼ Prevention

Avoid breathing dust. (P261)

Contaminated work clothing should not be allowed out of the workplace. (P272)

Wear eye protection/protective gloves/protective clothing. (P280)

Response

If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)

Take off contaminated clothing and wash it before reuse. (P362+P364)

▼ Storage

Not applicable.

▼ Disposal

Dispose of contents/container in accordance with local regulation. (P501)

2.3. Other hazards

▼ Additional warnings

Contains epoxy constituents. May produce an allergic reaction.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	CAS No.: 25068-38-6	60-100%	Skin Irrit. 2, H315 (SCL: 5.00 %) Eye Irrit. 2, H319 (SCL: 5.00 %)	
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS No.: 68609-97-2	10-30%	Skin Irrit. 2, H315	

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: First-aid measures

4.1. Description of first aid measures

General information

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Not applicable.

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.

Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

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

If eye irritation persists: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO₂)

Containers may explode when heated due to excessive pressure build-up.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.
Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Store in a cool, dry place and should not come into contact with heat sources.

Recommended storage material

Always store in containers of the same material as the original container.

Storage conditions

5 - 40°C

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

8.2. ▼ Exposure controls

Apply general control to prevent unnecessary exposure

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally

Use only protective equipment with a recognized certification mark, e.g. the UL mark.

▼ Respiratory Equipment

Work situation	Type	Class	Colour	Standards	
In case of insufficient ventilation, a protective mask should be worn	Combination filter A2P2	Class 2	Brown/White	EN14387	

Skin protection

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn. Wear a protective suit in the event of prolonged periods of work with the product.	-	-	

▼ Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.4	> 480	EN374-2, EN16523-1, EN388	

Eye protection

Type	Standards	
Wear safety glasses with side shields.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Color

Yellow

Odor

Mild

▼ Odor threshold (ppm)

No data available.

▼ pH

No data available.

Density (g/cm³)

1,11-1,14

Kinematic viscosity

600-800 cP

Particle characteristics

Does not apply to liquids.

Phase changes

▼ Melting point/freezing point (°F)

No data available.

Softening point/range (°F)

Does not apply to liquids.

Boiling point (°F)

-

Boiling point (°C)

> 148

Vapor pressure

0.06 mmHg (21 °C)

▼ Relative vapor density

No data available.

Decomposition temperature (°F)

-

Decomposition temperature (°C)

> 350

Data on fire and explosion hazards

Flash point (°F)

-

Flash point (°C)

176,7 - 190,6

▼ Flammability (°F)

No data available.

▼ Auto-ignition temperature (°F)

No data available.

Explosion limits (% v/v)

1.6 - 3.6

Solubility

Solubility in water

Insoluble

▼ n-octanol/water coefficient (LogKow)

No data available.

▼ Solubility in fat (g/L)

No data available.

9.2. Other information

Other physical and chemical parameters

No data available.

▼ Oxidizing properties

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies

None known.

10.4. Conditions to avoid

Containers may explode when heated due to excessive pressure build-up.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. ▼ Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

▼ Acute toxicity

Product/substance
 reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
 Species: Rabbit
 Route of exposure: Dermal
 Test: LD50
 Result: 23000 mg/kg

Product/substance
 reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
 Species: Rat
 Route of exposure: Oral
 Test: LD50
 Result: 15000 mg/kg

Product/substance oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
 Species: Rat
 Route of exposure: Oral
 Test: LD50
 Result: 17100 mg/kg

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

May cause an allergic skin reaction.

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.

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs.
 Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Other information

None known.

SECTION 12: Ecological information

12.1. ▼ Toxicity

Product/substance
 reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
 Species: Fish
 Duration: 96 hours

Test: LC50
Result: 2 mg/L

Product/substance
reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700)
Species: Daphnia
Duration: 48 hours
Test: EC50
Result: 1,8 mg/L

Product/substance
reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700)
Species: Algae
Duration: 72 hours
Test: EC30
Result: 11 mg/L

Product/substance
reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700)
Species: Crustacean
Duration: 21 days
Test: LT50
Result: 0,3 mg/L

Product/substance oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Species: Fish
Duration: 96 hours
Test: LC50
Result: 1800 mg/L

Product/substance oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Species: Algae
Duration: 72 hours
Test: NOEC
Result: 500 mg/L

Product/substance oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Species: Algae
Duration: 72 hours
Test: EC50
Result: 843 mg/L

Product/substance oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Species: Activated sludge
Duration: 3 hours
Test: EC50
Result: 100 mg/L

Based on available data, the classification criteria are not met.

12.2. ▼ Persistence and degradability

Product/substance
reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700)
Result: 12% (28 dg)
Conclusion: Not biodegradable
Test: OECD 301 B

Product/substance oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Result: 87 % (28 d)

Conclusion: Readily biodegradable
Test: OECD 301 F

12.3. ▼ Bioaccumulative potential

Product/substance
reaction product: bisphenol-A(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
BCF: 100
LogKow: 3,2420
Conclusion: Potential for bioaccumulation

Product/substance oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
BCF: 160
LogKow: 3,7700
Conclusion: Potential for bioaccumulation

12.4. Mobility in soil

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
LogKoc = 3.063863, Moderate mobility potential.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Other adverse effects

This product contains substances with the potential of bioaccumulation resulting in the risk of accumulation in the food chain. Bioaccumulative substances are concentrated in adipose tissue and are not easily secreted.

SECTION 13: Disposal considerations

RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)

None of the components are listed

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Transport hazard class: 9 Label: 9 Classification code: M6	III	No	Limited quantities: 5 L Tunnel restriction code: 3 (-) See below for additional information .
IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Transport hazard class: 9 Label: 9 Classification code: M6	III	No	Limited quantities: 5 L EmS: F-A S-F See below for

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
						additional information
IATA	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Transport hazard class: 9 Label: 9 Classification code: M6	III	No	See below for additional information

* Packing group

** Environmental hazards

▼ Additional information

This product is within scope of the regulations of transport of dangerous goods.

These substances when carried in single or combination packaging's containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of DOT/IMDG/IATA provided the packaging's meet the general specifications for packaging: Part 178 (DOT) / 4.1.1.1, 4.1.1.2, 4.1.1.4 - 4.1.1.8 (IMDG) / 5.0.2.4.1, 5.0.2.6.1.1, 5.0.2.8 (IATA).

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DOT / See § 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport. See § 172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

14.6. Special precautions for user

This product is covered by the ADR Special Provision 375, IATA Special provision A197 and IMDG exception 2.10.2.7: Marine pollutants packaged in single or combination packaging's containing a net quantity per single or inner packaging of max. 5 L or having a net mass per single or inner packaging of max. 5 kg for solids are not subject to any other provisions of ADR / IMDG / IATA provided the packaging's meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 (ADR and IMDG) and/or 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8 (IATA).

14.7. Transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

15.2. ▼ U.S. Federal regulations

TSCA (the non-confidential portion)

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) is listed
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. is listed

Clean Air Act

None of the components are listed

EPCRA Section 302

None of the components are listed

EPCRA Section 304

None of the components are listed

EPCRA section 313

None of the components are listed

CERCLA

None of the components are listed

▼ Hazardous chemical inventory reporting

This product is subject to Tier II reporting.

State regulations

California / Prop. 65

None of the components are listed

Massachusetts / Right To Know Act

None of the components are listed

New Jersey / Right To Know Act

None of the components are listed

New York / Right To Know Act

None of the components are listed

Pennsylvania / Right To Know Act

None of the components are listed

15.4. Restrictions for application

Restricted to professional users.

15.5. Demands for specific education

Use of this product requires dedicated training in work with polyurethane and epoxy products.

15.6. Additional information

Not applicable.

15.7. Chemical safety assessment

No

15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H315, Causes skin irritation.

H319, Causes serious eye irritation.

The full text of identified uses as mentioned in section 1

None known.

Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration
PBT = Persistent, Bioaccumulative and Toxic
RCRA = Resource Conservation and Recovery Act
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SARA = Superfund Amendments and Reauthorization Act
SCL = A specific concentration limit.
STEL = Short-term exposure limits
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TSCA = The Toxic Substances Control Act
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

[Additional information](#)

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

[The safety data sheet is validated by](#)

safety@akasel.com

▼ Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

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.

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.

Country-language: US-en