

SAFETY DATA SHEET

Aka-Resin, Epoxy

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

1.1. Product identifier

Trade name

Aka-Resin, Epoxy

Product no.

21101521-21101524 (8010-8015)

▼ Unique formula identifier (UFI)

PA9X-MAA1-5V8P-82X8

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

Relevant identified uses of the substance or mixture

Epoxy resin for metallographic hot embedding of samples

Use descriptors (REACH)

Sectors of use	Description
SU 12	Manufacture of plastics products, including compounding and conversion
Article category	Description
AC13	Plastic articles

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

Akasel A/S

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4000 Roskilde

Denmark

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www.akasel.com

E-mail

safety@akasel.com

SDS date

29-09-2021

SDS Version

3.0

Date of previous version

2021-06-21 (2.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

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.

Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

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)

Harmful to aquatic life with long lasting effects. (H412)

Safety statement(s)

General

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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

-

Disposal

Dispose of contents/container to an approved waste disposal plant. (P501)

▼ Hazardous substances

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

4,5,6,7-tetrabromo-1,3-dihydro-2-benzofuran-1,3-dione

2.3. Other hazards

Additional labelling

Not applicable

Additional warnings

Contains epoxy constituents. May produce an allergic reaction.

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

▼ 3.2 Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight \leq 700)	CAS No.: 25068-38-6 EC No.: 500-033-5 REACH: Index No.: 603-074-00-8	15-25%	Skin Irrit. 2, H315 (SCL: 5.00 %) Skin Sens. 1, H317 Eye Irrit. 2, H319 (SCL: 5.00 %) Aquatic Chronic 2, H411	
4,5,6,7-tetrabromo-1,3- dihydro-2-benzofuran-1,3-	CAS No.: 632-79-1	10- <25%	Skin Sens. 1, H317	

dione	EC No.: 211-185-4
	REACH:
	Index No.:

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

Other information

No special

SECTION 4: First aid measures

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 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

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

Ingestion

Provide plenty of water for the person to drink and stay with him/her. 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 victim 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.

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.

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

If eye irritation persists: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

Information to medics

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

SECTION 5: Firefighting 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:

Halogenated compounds.

Carbon oxides (CO / CO₂).

Some metal oxides.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) 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.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Minor spills are collected with a cloth. Collection and disposal of the material shall be done with minimum creation of dust. Sweep and collect. Shall be contained in suitable and tightly closed disposal containers.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on "Disposal considerations" in regard of 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.

Powder trickling out onto the floor or onto other containers must be prevented.

Recommended storage material

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

Storage temperature

Room temperature 18 to 23°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 in the national list of substances with an occupational exposure limit.

DNEL

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤
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DNEL	700)
Route of exposure	8,33 mg/kg/day
Duration	Dermal
	Long term – Systemic effects - Workers
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
DNEL	12,25 mg/m ³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - Workers
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
DNEL	12,25 mg/m ³
Route of exposure	Inhalation
Duration	Long term – Systemic effects - Workers
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
DNEL	3,571 mg/kg/day
Route of exposure	Dermal
Duration	Short term – Systemic effects - General population
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
DNEL	3,571 mg/kg/day
Route of exposure	Dermal
Duration	Long term – Systemic effects - General population
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
DNEL	0,75 mg/kg/day
Route of exposure	Oral
Duration	Short term – Systemic effects - General population
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
DNEL	0,75 mg/kg/day
Route of exposure	Oral
Duration	Long term – Systemic effects - General population
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
DNEL	8,33 mg/kg/day
Route of exposure	Dermal
Duration	Short term – Systemic effects - Workers

PNEC

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
PNEC	0,196 mg/kg
Route of exposure	Soil

Duration of Exposure

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
PNEC	0,0996 mg/l
Route of exposure	Marine water sediment
Duration of Exposure	

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
PNEC	0,996 mg/l
Route of exposure	Freshwater sediment
Duration of Exposure	

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
PNEC	0,018 mg/l
Route of exposure	Intermittent release
Duration of Exposure	

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
PNEC	0,0006 mg/l
Route of exposure	Marine water
Duration of Exposure	

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
PNEC	0,006 mg/l
Route of exposure	Freshwater
Duration of Exposure	

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
PNEC	10 mg/l
Route of exposure	Sewage treatment plant
Duration of Exposure	

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

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 gas or dust.

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 CE marked protective equipment.


▼ Respiratory Equipment

Work situation	Type	Class	Colour	Standards	
In case of insufficient ventilation, use suitable respiratory protective device		FFP1 & FFP2		EN149	


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	0,11-0,14	>480	EN374-2	

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

Form

Granulate

Colour

Black

Odour

Mild

Odour threshold (ppm)

Testing not relevant or not possible due to nature of the product.

pH

Testing not relevant or not possible due to nature of the product.

Density (g/cm³)

2,20-2,30

Viscosity

Does not apply to solids.

Phase changes

Melting point (°C)

80,00000000 °C

Boiling point (°C)

Does not apply to solids.

Vapour pressure

Testing not relevant or not possible due to nature of the product.

Vapour density

Does not apply to solids.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Evaporation rate (n-butylacetate = 100)

Data on fire and explosion hazards

Flash point (°C)

Does not apply to solids.

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

Explosion limits (% v/v)

Does not apply to solids.

Explosive properties

Testing not relevant or not possible due to nature of the product.

Oxidizing properties

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Insoluble

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

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

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

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)
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	23000 mg/kg

Other information

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

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

No special

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	2 mg/L
Other information	

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
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Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC30
Result	11 mg/L
Other information	
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
Test method	
Species	Crustacean
Compartment	
Duration	21 days
Test	LT50
Result	0,3 mg/L
Other information	
Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	1,8 mg/L
Other information	

12.2. Persistence and degradability

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
Biodegradable	No
Test method	OECD 301 B
Result	12% (28 dg)

12.3. Bioaccumulative potential

Product/substance	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
Test method	
Potential bioaccumulation	Yes
LogPow	3,2420
BCF	100
Other information	

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 4 - Irritant (skin irritation and eye damage)

HP 13 - Sensitising

Avoid discharge to lakes, streams, sewers, etc.

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

07 02 14* Wastes from additives containing dangerous substances

Specific labelling

Not applicable

Contaminated packing

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

SECTION 14: Transport information

14.1 - 14.4

Not dangerous goods according to ADR, IATA and IMDG.

ADR/RID

Not applicable

IMDG

Not applicable

"MARINE POLLUTANT"

No

IATA

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Demands for specific education

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

SEVESO - Categories / dangerous substances

Not applicable

Additional information

Not applicable

Sources

The Management of Health and Safety at Work Regulations 1999

Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

- H315, Causes skin irritation.
- H317, May cause an allergic skin reaction.
- H319, Causes serious eye irritation.
- H411, Toxic to aquatic life with long lasting effects.

The full text of identified uses as mentioned in section 1

- SU 12 = Manufacture of plastics products, including compounding and conversion
- AC13 = Plastic articles

Abbreviations and acronyms

- 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
- CE = Conformité Européenne
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- CSA = Chemical Safety Assessment
- CSR = Chemical Safety Report
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EINECS = European Inventory of Existing Commercial chemical Substances
- ES = Exposure Scenario
- EUH statement = CLP-specific Hazard statement
- EWC = European Waste Catalogue
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IARC = International Agency for Research on Cancer (IARC)
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- 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)
- OECD = Organisation for Economic Co-operation and Development
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- SCL = A specific concentration limit.
- SVHC = Substances of Very High Concern
- STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
- STOT-SE = Specific Target Organ Toxicity - Single Exposure
- TWA = Time weighted average
- UN = United Nations
- UVCB = Complex hydrocarbon substance
- VOC = Volatile Organic Compound
- vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation

methods given by Regulation (EC) No. 1272/2008 (CLP)

The safety data sheet is validated by

iro@akasel.com

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue 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: GB-en