

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

- **1.1 Product identifier**
- **Trade name: ALFIX C2 EPOXY (A-Komp.)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Epoxy resin adhesive
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Alfix A/S
H.C. Ørsteds Vej 11-13
6000 Kolding
-Dänemark-
- **Informing department:**
Frank Pingel
E: fp@alfix.dk
T: +45 75 52 90 11

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

- | | |
|-------------------|---|
| Skin Irrit. 2 | H315 Causes skin irritation. |
| Eye Irrit. 2 | H319 Causes serious eye irritation. |
| Skin Sens. 1 | H317 May cause an allergic skin reaction. |
| ----- | |
| Aquatic Chronic 3 | H412 Harmful to aquatic life with long lasting effects. |

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS07
- **Signal word** Warning
- **Hazard-determining components of labelling:**
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
Epoxy Phenol Novolak Resin
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
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.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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- **vPvB:** Not applicable.

- **Determination of endocrine-disrupting properties**

1675-54-3 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane: List II

Epoxy Phenol Novolak Resin: List II

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

- **Description:**

Solvent- free preparation based on Bisphenol-A-Epichlorhydrin resin molecular weight ≤ 700 .

- **Dangerous components:**

CAS: 1675-54-3 EINECS: 216-823-5	2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane <ul style="list-style-type: none"> ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 Specific concentration limits: Eye Irrit. 2; H319: C \geq 5 % Skin Irrit. 2; H315: C \geq 5 % 	10-25%
CAS: 65997-17-3	aluminum silicate <ul style="list-style-type: none"> ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 	2.5-10%
CAS: 38640-62-9 EINECS: 254-052-6	Diisopropylnaphtalene <ul style="list-style-type: none"> ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 1, H410 	<2.5%
CAS: 68609-97-2 EINECS: 271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs <ul style="list-style-type: none"> ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317, EUH205 	<2.5%
EC number: 701-263-0	Epoxy Phenol Novolak Resin <ul style="list-style-type: none"> ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317 	<2.5%
CAS: 933999-84-9 EC number: 618-939-5 (1:2)	Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane <ul style="list-style-type: none"> ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412 	<1%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Personal protection for the First Aider.

It is possible to choke in case of vomiting in unconsciousness.

Bring unconscious persons into a stable position on side.

Keep the respiratory tract free (remove dentures and vomiting).

Check the pulse. In case of heart failure you have to make a cardiac massage. In case of stoppage of breathing: artificial respiration.

Take up a doctor immediately!

- **After inhalation** Supply fresh air or oxygen; call for doctor.

- **After skin contact** Instantly wash with water and soap and rinse thoroughly.

- **After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

- **After swallowing**

Drink copious amounts of water and provide fresh air. Instantly call for doctor.

Show the pack or the label to the doctor.

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- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet.
- **5.2 Special hazards arising from the substance or mixture**
Formation of poisonous gases during heating or in fires.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Follow the emergency-plan.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Bring persons out of danger.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pick up the product mechanically, avoid dust formation.
- **6.4 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 information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Prevent formation of dust.
Keep away from children.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Please follow the rules of the VCI-Storage-Concept for chemicals.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class 13**
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls**
It must be possible to wash the skin in the working area.
Eye-wash bottle must be available.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures**
Clean skin only with cleaning agent especially for epoxy resin.
Don't use solvent for skin cleaning!
Clean clothes which are contaminate with epoxi resin before unusing again.
The usual precautionary measures should be adhered to in handling the chemicals.
Instantly remove any soiled and impregnated garments.
Avoid contact with the eyes and skin.
Be sure to clean skin thoroughly after work and before breaks.
- **Breathing equipment:** Not required.
- **Hand protection** Hand Protection: Nitril-rubber-latex-gloves.
- **Material of gloves**
Nitril-rubber-latex-gloves II R: Thickness $\geq 0,5\text{mm}$; Break through time ≥ 480 min
- **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection** Safety glasses
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Solid
- **Colour:** According to product specification
- **Smell:** Weak, characteristic
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Not determined
- **Boiling point or initial boiling point and boiling range** not apply
- **Flammability** Not determined.
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** Not applicable
- **Self-inflammability:** Product is not selfigniting.
- **Decomposition temperature:** Not determined.
- **pH** Not applicable.
- **Viscosity:**
- **Kinematic viscosity** Not applicable.
- **dynamic:** Not applicable.
- **Solubility**
- **Water:** Insoluble
- **Partition coefficient n-octanol/water (log value)** Not determined.
- **Steam pressure:** Not applicable.
- **Density and/or relative density**
- **Density at 20 °C** 1.76 g/cm³
bulk density
- **Relative density** Not determined.

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· Vapour density	Not applicable.
· 9.2 Other information	
· Appearance:	
· Form:	Pasty
· Important information on protection of health and environment, and on safety.	
· Explosive properties:	Product is not explosive.
· Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong acids and oxidizing agents
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
 - **Acute toxicity** Based on available data, the classification criteria are not met.
 - **LD/LC50 values that are relevant for classification:**
-
- 1675-54-3 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane**
- | | | |
|--------|------|----------------------|
| Oral | LD50 | >15,000 mg/kg (rats) |
| Dermal | LD50 | 23,000 mg/kg (Kan) |
- 38640-62-9 Diisopropylnaphtalene**
- | | | |
|--------|------|--------------------------------|
| Oral | LD50 | >4,000 mg/kg (rats) (OECD 401) |
| Dermal | LD50 | >4,000 mg/kg (rats) (OECD 402) |

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Inhalative LC50/4 h 5.64 mg/l (rats)

68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

Oral LD50 >5,000 mg/kg (rats)

Dermal LD50 >4,500 mg/kg (rabbit)

Epoxy Phenol Novolak Resin

Oral LD50 >5,000 mg/kg (rats) (OECD 401)

Dermal LD50 >2,000 mg/kg (rats) (OECD 402)

933999-84-9 Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)

Oral LD50 2,190 mg/kg (rats)

Dermal LD50 >2,000 mg/kg (rabbit)

· **Specific symptoms in biological assay:****38640-62-9 DiisopropylNaphtalene**

NOAEL ~170 mg/kg /bw/day (rats) ((6 months))

· **Skin corrosion/irritation**

The product has an irritate-effect.

Causes skin irritation.

· **Serious eye damage/irritation** Causes serious eye irritation.· **Respiratory or 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.· **Additional toxicological information:** Sensitizing· **11.2 Information on other hazards**· **Endocrine disrupting properties**

1675-54-3 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane: List II

Epoxy Phenol Novolak Resin: List II

541-02-6 2,2,4,4,6,6,8,8,10,10-decamethylcyclopentasiloxane: List II

128-37-0 Butylated hydroxytoluene: List II

SECTION 12: Ecological information· **12.1 Toxicity**· **Aquatic toxicity:****1675-54-3 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane**

LC50/96h 2 mg/l (for)

EC50 (48h) (static) 1.8 mg/l (Daphnia magna)

ERC50 (static) 11 mg/l /72h (Scenedesmus capricornutum)

IC50 >42.6 mg/l /18h (bacterial toxicity)

38640-62-9 DiisopropylNaphtalene

LL50 1.7 mg/l /48h (Daphnia magna) (OECD 202)

68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

LC50/96h >5,000 mg/l (rainbow trout)

EC50 (48h) (static) 7.2 mg/l (Daphnia magna) (OECD 202)

EC/LC50 (72h) 844 mg/l (algae toxicity)

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IC50 (static) >100 mg/l /3h (activated sludge bacteria) (OECD 209)
NOEC 500 mg/l /72h (Pseudokirchneriella subcapitata)

Epoxy Phenol Novolak Resin

LC50/96h 5.7 mg/l (Leuciscus idus)
EC50 (48h) 2.55 mg/l (Daphnia magna)
EC50 1.8 mg/l (Selenastrum capricornutum) (OECD 201)
IC50 (static) >100 mg/l /3h (activated sludge bacteria)

933999-84-9 Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)

LC50/96h 30 mg/l (Leuciscus idus)
EC50 (48h) 47 mg/l (Daphnia magna)
23.1 mg/l (algae toxicity)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system.
Danger to drinking water if even small quantities leak into soil.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Can be deposited with household garbage after solidification following consultation with the operator of the waste disposal facility and the pertinent authorities and under adherence to the necessary technical regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**
- 08 00 00 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
- 08 01 00 wastes from MFSU and removal of paint and varnish
- 08 01 99 wastes not otherwise specified
 - HP4 Irritant - skin irritation and eye damage
 - HP13 Sensitising
 - HP14 Ecotoxic
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN number or ID number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.
- **National regulations**
- **Technical instructions (air):**
- **Class Share in %**
- **NK 0.3**
- 15.2 **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH205 Contains epoxy constituents. May produce an allergic reaction.
- **Department issuing data specification sheet:** Environment protection department.
- **Contact:** Frank Pingel
- **Date of previous version:** 25.02.2021
- **Version number of previous version:** 13

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· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· * Data compared to the previous version altered.

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