

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

- **1.1 Product identifier**
- **Trade name: ALFIX C2 EPOXY (B-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**



GHS05 corrosion

Skin Corr. 1B      H314 Causes severe skin burns and eye damage.  
Eye Dam. 1        H318 Causes serious eye damage.



GHS07

Acute Tox. 4      H332 Harmful if inhaled.  
Skin Sens. 1      H317 May cause an allergic skin reaction.

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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** GHS05, GHS07
- **Signal word** Danger

- **Hazard-determining components of labelling:**  
Benzyl alcohol  
4,4'-Isopropylidendiphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine  
3-aminomethyl-3,5,5-trimethylcyclohexylamine  
Polyethylenpolyamin (Teta - Fraktion)
- **Hazard statements**  
H332 Harmful if inhaled.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
P260 Do not breathe dusts or mists.  
P273 Avoid release to the environment.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P405 Store locked up.  
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.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Hardener, aminformulation

- **Dangerous components:**

CAS: 100-51-6	Benzyl alcohol	25-50%
EINECS: 202-859-9	⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2, H319	
CAS: 38294-64-3	4,4'-Isopropylidendiphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	10-25%
	⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Skin Sens. 1, H317; Aquatic Chronic 3, H412	
CAS: 2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	2.5-10%
EINECS: 220-666-8	⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	
CAS: 90640-67-8	Polyethylenpolyamin (Teta - Fraktion)	2.5-10%
	⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information**
- Instantly remove any clothing soiled by the product.
- 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!
- Personal protection for the First Aider.
- **After inhalation** Supply fresh air or oxygen; call for doctor.
- **After skin contact**
- Instantly wash with water and soap and rinse thoroughly.
- Change immediately contaminated clothes.
- If symptoms appearance, call the doctor.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**
- Do not induce vomiting; instantly call for medical help.
- Show the pack or the label to the doctor.
- **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.

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### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, 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**  
Follow the emergency-plan.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Burst- and explosion-danger by increasing pressure.  
In case of fire chill the container with water spray.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Cleaning may be carried out only with skilled persons.
- **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:**  
Ensure adequate ventilation.  
Absorb with liquid-binding, inflammable material (sand, diatomite, acid binders, universal binder).
- **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**  
Keep away from heat and direct sunlight.  
Work with fresh air supply, keep doors and windows open.  
Do not breath in aerosole, dust and vapour.  
Avoid splashes. Do not spray on hot surfaces.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.  
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:**  
Do not leave open containers.  
Do not store in common rooms.
- **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.  
Store in a locked cabinet and out of the reach of children.
- **Storage class 8 B**
- **7.3 Specific end use(s)** No further relevant information available.

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### 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.
- **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**  
Avoid contact with the eyes and skin.  
The usual precautionary measures should be adhered to in handling the chemicals.  
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  $\geq 480$  min
- **Penetration time of glove material**  
The exact break through 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.  
Contaminated protection clothes must be cleaned carefully before reuse.

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Fluid
- **Colour:** Yellowish
- **Smell:** Amine-like
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Not determined
- **Boiling point or initial boiling point and boiling range** Not determined
- **Flammability** Not applicable.
- **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 at 20 °C** 12.7
- **Viscosity:**
- **Kinematic viscosity** Not determined.
- **dynamic at 20 °C:** 3,900 mPas
- **Solubility**
- **Water:** miscible
- **Partition coefficient n-octanol/water (log value)** Not determined.
- **Steam pressure:** Not determined.

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**Safety data sheet**  
according to 1907/2006/EC, Article 31

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- |  |                     |
|--|---------------------|
| · <b>Density and/or relative density</b> |                     |
| · <b>Density at 20 °C</b>                | 1 g/cm <sup>3</sup> |
| · <b>Relative density</b>                | Not determined.     |
| · <b>Vapour density</b>                  | Not determined.     |

- |  |                           |
|--|---------------------------|
| · <b>9.2 Other information</b>   |                           |
| · <b>Appearance:</b>   |                           |
| · <b>Form:</b>   | Pasty                     |
| · <b>Important information on protection of health and environment, and on safety.</b> |                           |
| · <b>Explosive properties:</b>   | Product is not explosive. |
| · <b>Change in condition</b>   |                           |
| · <b>Evaporation rate</b>  | Not determined.           |

- |  |      |
|--|------|
| · <b>Information with regard to physical hazard classes</b>                        |      |
| · <b>Explosives</b>  | Void |
| · <b>Flammable gases</b>   | Void |
| · <b>Aerosols</b>  | Void |
| · <b>Oxidising gases</b>   | Void |
| · <b>Gases under pressure</b>  | Void |
| · <b>Flammable liquids</b>   | Void |
| · <b>Flammable solids</b>  | Void |
| · <b>Self-reactive substances and mixtures</b>                                     | Void |
| · <b>Pyrophoric liquids</b>  | Void |
| · <b>Pyrophoric solids</b>   | Void |
| · <b>Self-heating substances and mixtures</b>                                      | Void |
| · <b>Substances and mixtures, which emit flammable gases in contact with water</b> | Void |
| · <b>Oxidising liquids</b>   | Void |
| · <b>Oxidising solids</b>  | Void |
| · <b>Organic peroxides</b>   | Void |
| · <b>Corrosive to metals</b>   | Void |
| · <b>Desensitised explosives</b>   | 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** Exothermic reaction
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Acids
- **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** Harmful if inhaled.
  - **LD/LC50 values that are relevant for classification:**
- |                                |                            |
|--------------------------------|----------------------------|
| <b>100-51-6 Benzyl alcohol</b> |                            |
| Oral                           | LD50 1,040 mg/kg (mouse)   |
|                                | 1,620 mg/kg (rats)         |
| Dermal                         | LD50 >2,000 mg/kg (rabbit) |

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Inhalative LC50 4.178 mg/l (rats) (OECD 403)

**2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine**

Oral LD50 1,030 mg/kg (rats) (OECD 401)

Dermal LD50 1,840 mg/kg (rabbit)  
>2,000 mg/kg (rats)**90640-67-8 Polyethylenpolyamin (Teta - Fraktion)**

Oral LD50 1,716 mg/kg (rats) (OECD 401)

Dermal LD50 1,465 mg/kg (Kan) (OECD 402)

- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Causes serious eye damage.
- **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**

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

**SECTION 12: Ecological information**· **12.1 Toxicity**· **Aquatic toxicity:****100-51-6 Benzyl alcohol**

EC 50 390 mg/kg /(24h) (Pseudomas putida)

LC50/96h 460 mg/l (Pimephales promelas) (EPA OPP 72-1)  
645 mg/l (orfe)

EC10 &gt;658 mg/l /16h (Pseudomas putida) (DIN 38412)

EC50 (48h) 230 mg/l (Daphnia magna) (OECD 202)

EC/LC50 (72h) (static) 770 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

NOEC 51 mg/l /21d (Daphnia magna) (OECD 211)

310 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

**2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine**

LC50/96h 110 mg/l (Leuciscus idus) (OECD 203)

EC50 (48h) 23 mg/l (Daphnia magna) (OECD TG 202)

EC/10/18h 1,120 mg/l (Pseudomas putida) (Bringmann and Kühn 10, 87-98 (1977))

ERC50 &gt;50 mg/l (Scenedesmus subspicatus) (EG 88/302 (72h))

- **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**
- **Remark:** Harmful to fish

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· **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.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Danger to drinking water if even small quantities leak into soil.  
Harmful to aquatic organisms  
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values.  
A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation**

Must be specially treated under adherence to official 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 11\* waste paint and varnish containing organic solvents or other hazardous substances

HP6 Acute Toxicity

HP8 Corrosive

HP13 Sensitising

HP14 Ecotoxic

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

**SECTION 14: Transport information**

· **14.1 UN number or ID number**

· **ADR, IMDG, IATA**

UN2735

· **14.2 UN proper shipping name**

· **ADR**

2735 AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Isopropylidendiphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine, Polyethylenpolyamin (Teta - Fraktion))

· **IMDG, IATA**

AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Isopropylidendiphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine, Polyethylenpolyamin (Teta - Fraktion))

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according to 1907/2006/EC, Article 31

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## · 14.3 Transport hazard class(es)

## · ADR, IMDG, IATA



· Class 8 Corrosive substances.  
· Label 8

## · 14.4 Packing group

· ADR, IMDG, IATA III

## · 14.5 Environmental hazards:

· Marine pollutant: No

## · 14.6 Special precautions for user

Warning: Corrosive substances.  
· Kemler Number: 80  
· EMS Number: F-A,S-B  
· Segregation groups Alkalis  
· Stowage Category A  
· Segregation Code SG35 Stow "separated from" SGG1-acids

## · 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

## · Transport/Additional information:

## · ADR

· Limited quantities (LQ) 5L  
· Excepted quantities (EQ) Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml  
· Transport category 3  
· Tunnel restriction code E

## · IMDG

· Limited quantities (LQ) 5L  
· Excepted quantities (EQ) Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml

## · UN "Model Regulation":

UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S.  
(4,4'-ISOPROPYLIDENDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE, POLYETHYLENPOLYAMIN (TETA - FRAKTION)), 8, III

**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.  
· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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- **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.
- **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

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H412 Harmful to aquatic life with long lasting effects.

- **Department issuing data specification sheet:** Environment protection department.

- **Contact:** Frank Pingel

- **Date of previous version:** 25.02.2021

- **Version number of previous version:** 20

#### · 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
- Acute Tox. 4: Acute toxicity - oral – Category 4
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- **\* Data compared to the previous version altered.**