

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

### Epoxy Membrane – part B

1.1 Product identifier: Alfix Epoxy Membrane

1.2 Relevant identified uses of the substance or mixture and uses advised against:  
Hardener for 2-part system based on epoxy resins.

1.3 Details of the supplier of the safety data sheet:

Alfix A/S  
H.C. Ørstedsvej 11-13  
DK-6000 Kolding  
Tel.: +45 75 52 90 11  
Fax: +45 75 50 40 11  
e-mail: [alfix@alfix.dk](mailto:alfix@alfix.dk)  
Contact person: Allan Nielsen / Frank Pingel

1.4 Emergency telephone number  
+45 75 52 90 11 (Alfix)

## SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

According to CLP (1272/2008)

Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Chronic 2 ; Toxic to aquatic life with long lasting effects.

Acute Tox. 4 ; H302 - Acute toxicity (oral) : Category 4 ; Harmful if swallowed.

Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.

Skin Corr. 1A ; H314 - Skin corrosion/irritation : Category 1A ; Causes severe skin burns and eye damage.

Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.

2.2 Label elements

Labelling according to CLP (1272/2008)

**Hazard pictograms**



Environment (GHS09) · Corrosion (GHS05) · Exclamation mark (GHS07)

Signal word  
Danger

Hazard components for labelling

POLY[OXY(METHYL-1-,2-ETHANEDIYL)], ALPHA-(2-AMINOMETHYLETHYL)-

OMEGA-(2-AMINOMETHYLETHOXY)- ; CAS No. : 9046-10-0

PHENOL, STYRENATED ; CAS No. : 61788-44-1

TRIMETHYLHEXANE-1,6-DIAMINE ; CAS No. : 25620-58-0

AMINE; KOKOS - ALKYL ; CAS No. : 61788-46-3

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL ; CAS No. : 90-72-2

Hazard statements

H314 Causes severe skin burns and eye damage.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face 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.

P310 Immediately call a POISON CENTER or a doctor.

P302+P352 IF ON SKIN: Wash with plenty of water/....

P101 If medical advice is needed, have product container or label at hand.

P405 Store locked up.

P501 Dispose of contents/container according with local regulations.

### 2.3 Other hazards:

None known.

PBT/vPvB: The substances are not PBT/vPvB according to the criteria in Annex XIII.

### 2.4 Additional information

The system is a mixture out of part A and suitable part B. The cured product (A + B) is not subject to the Ordinance on Hazardous Materials (GefStoffV).

## SECTION 3: Composition/information on ingredients

### 3.1 Substances: -

#### Mixtures:

Substances: - Mixtures:	CAS-No.	EC-No.	Content- %	REACH reg. No	Classification
POLY(OXY(METHYL-1-,2-ETHANEDIYL), ALPHA-(2-AMINOMETHYLETHYL)-OMEGA-(2-AMINOMETHYLETHOXY)-	9046-10-0	-	25-50%	-	Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Aquatic Chronic 3 ; H412
PHENOL, STYRENATED	61788-44-1	262-975-0	5-20%	-	Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319 Aquatic Chronic 2 ; H411
TRIMETHYLHEXAN-1,6-DIAMIN	25620-58-0	247-134-8	5-10%	-	Skin Corr. 1B ; H314 Acute Tox. 4 ; H302 Skin Sens. 1 ; H317 Aquatic Chronic 3 ; H412
AMINE; KOKOS-ALKYL	61788-46-3	262-977-1	5-10%	-	Asp. Tox. 1 ; H304 STOT RE 2 ; H373 Skin Corr. 1A ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 STOT SE 3 ; H335 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410
2,4,6-TRI(DIMETHYLAMINOMETHYL)PHENOL	90-72-2	202-013-9	1-5%	-	Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Aquatic Chronic 3 ; H412
NAPHTHA (RÅOLJE), HYDROAFSVOVLET, TUNG	64742-82-1	265-185-4	<1%	01-2119458049-33	Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 STOT SE 3 ; H336 Aquatic Chronic 2 ; H411
P-CYMOL	99-87-6	202-796-7	<1%	-	Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 Aquatic Chronic 2 ; H411

CLP\*: Regulation (EC) No 1272/2008 of the European Parliament and of the Council  
For the full text of R-phrases and H-phrases see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures:

#### General information

Remove contaminated, saturated clothing immediately. If medical advice is needed, have product container, label or safety data sheet at hand.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest. Consult a physician in case of symptoms.

#### In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

#### After ingestion

Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest.

### 4.2 Most important symptoms and effects, both acute and delayed:

No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed:

None

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Carbon dioxide (CO<sub>2</sub>) Extinguishing powder Water spray alcohol resistant foam

### 5.2 Special hazards arising from the substance or mixture:

Carbon monoxide. Carbon dioxide (CO<sub>2</sub>) Nitrogen oxides (NO<sub>x</sub>) Ammonia (NH<sub>3</sub>)

### 5.3 Advice for firefighters:

Do not allow run-off from fire-fighting to enter drains or water courses.

In case of fire: Wear self-contained breathing apparatus.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

Personal equipment: See section 8. Ventilate well.

Use personal protection equipment. Avoid contact with skin and eyes. Do not breathe vapour.

#### 6.2 Environmental precautions:

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

#### 6.3 Methods and material for containment and clearing up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

#### 6.4 References to other sections:

See above.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling:

Protective measures

Use only in well-ventilated areas. Avoid contact with skin and eyes.

Measures to prevent fire

No special fire protection measures are necessary.

Specific requirements or handling rules

For mixing of both components: Please refer also to material safety data sheet of part A.

Mixing ratio and additional information please see technical data sheet. Do not leave mixed material in the container - curing can lead to excessive heat.

#### 7.2 Conditions for safe storage, including any incompatibilities:

Keep only in the original container, tightly closed. Store in a cool, well ventilated, dry place.

Keep away from food, drinks and animal feed.

#### 7.3 Specific end use(s):

Hardener for 2-part system based on epoxy resins - Observe technical data sheet.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters:

None

#### 8.2 Exposure controls:

Appropriate engineering controls:

None.

#### 8.3 Individual protection measures, such as personal protective equipment:

##### Eye/face protection

goggles or Face protection shield - DIN EN 166

##### Skin protection

##### Hand protection

Wear suitable gloves. - DIN EN 374

Suitable material : NBR (Nitrile rubber) Butyl caoutchouc (butyl rubber) special laminates (0,75 mm) Unsuitable material : Leather.

Breakthrough time (maximum wearing time) : The permeation time (max. usage time) of the gloves depends on material and thickness as well as temperature. The data are available from the manufacturer of the specific gloves. The permeation time for the mentioned glove materials is in general > 480 min.

Recommended glove articles : Appropriate gloves are available e.g. from Mapa-

Professional (F-92205 Neuilly sur Seine - France): ULTRIL® 377 (NBR - 1,3 mm) -

ULTRANITRIL® (491, 492, 494 oder 495 - NBR - 0,55mm) - CHEM-PLY® (0,75 mm) -

Remark : Gloves have to be changed and disposed immediately after strong pollution or damage, with splashes after the expiry of the specified maximum wearing time, but no later than the end of work shift.

##### Body protection

Wear suitable protective clothing.

##### Respiratory protection

Breathing protection equipment required in inadequately ventilated places and during spraying.

Suitable respiratory protection apparatus

For short term use: Combination filtering device (EN 14387) combination filter - type A-P2 (for gases and vapours of organic compounds, boiling point above 65 °C / particles, colour code: brown / white)

##### General health and safety measures

The usual precautionary measures for the handling of chemicals have to be observed.

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

Remove contaminated, saturated clothing immediately. Avoid contact with skin, eyes and clothes.

#### 8.4 Environmental exposure controls:

Disposal in accordance with local authority requirements. See section 13.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties:

**Appearance:** Liquid

**Odour:** Like amine.

**Odour threshold:** -

pH: -  
Melting point/freezing point: -  
Initial boiling point and boiling range: -  
Flash point:-  
Evaporation rate: -  
Flammability (solid, gas): -  
Upper/lower flammability or explosive limits: -  
Vapour pressure: -  
Vapour density: -  
Relative density: -  
Solubility(ies): -  
Partition coefficient: n-octanol/water: -  
Auto-ignition temperature: -  
Decomposition temperature: -  
Viscosity: -  
Explosive properties: -  
Oxidising properties: -

**9.2 Other information: -****SECTION 10:****Stability and reactivity****10.1 Reactivity:**

After mixing the two components of the material cures.

**10.2 Chemical stability:**

Product is stable under normal conditions.

**10.3 Possibility of hazardous reactions:**

None.

**10.4 Conditions to avoid:**

None, if handled according to order.

**10.5 Incompatible materials:**

Exothermic reaction with: Acid

**10.6 Hazardous decomposition products:**

Gases/vapours, corrosive Ammonia.

**SECTION 11:  
Toxicological information****11.1 Information on toxicological effects:****Assessment/classification****Health hazards**

Acute toxicity (oral) : Category 4 - Harmful if swallowed.

Acute toxicity (dermal) : No - Based on available data, the classification criteria are not met.

Acute toxicity (inhalation) : No - Based on available data, the classification criteria are not met.

Skin Corrosion / Irritation : Category 1A - Causes severe skin burns and eye damage.

Serious eye damage / eye irritation : Category 1 - Causes serious eye damage.

Sensitisation (Respiratory) : No - Based on available data, the classification criteria are not met.

Sensitisation (Skin) : Category 1 - May cause an allergic skin reaction.

Germ cell mutagenicity : No - Based on available data, the classification criteria are not met.

Carcinogenicity : No - Based on available data, the classification criteria are not met.

Reproductive toxicity : No - Based on available data, the classification criteria are not met.

Reproductive toxicity, Effects on or via lactation : No - Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure) : No - Based on available data, the classification criteria are not met.

Specific target organ toxicity (Respiratory tract irritation) : No - Based on available data, the classification criteria are not met.

Specific target organ toxicity (Narcosis) : No - Based on available data, the classification criteria are not met.

Specific target organ toxicity (Repeated exposure) : No - Based on available data, the classification criteria are not met.

Aspiration hazard : No - Based on available data, the classification criteria are not met.

**Additional information**

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation..

**SECTION 12:  
Ecological information****12.1 Toxicity:****Aquatic toxicity**

The mixture has been checked following the conventional method for eco-toxicological properties. If classified as eco-toxic see section 2 for details.

**12.2 Persistence and degradability**

No available data.

**12.3 Bioaccumulative potential:**

No available data.

**12.4 Mobility in soil:**

No available data.

**12.5 Results of PBT and vPvB assessment:**

Contains no PBT / vBvP-substance.

**12.6 Other adverse effects:**

No information available.

**SECTION 13:  
Disposal considerations****13.1 Waste treatment methods:**

Disposal of in accordance with local authority requirements.

**13.2 EWC-code:**

17 01 07

**SECTION 14:  
Transport information**

The product is considered as dangerous goods.

**14.1 UN-number:** 2735**14.2 UN proper shipping name:** Land transport (ADR/RID)

AMINES, LIQUID, CORROSIVE, N.O.S. ( ISOPHORONEDIAMINE · 3,6-DIAZAOCTANE-1,8-DIAMINE )

Sea transport (IMDG)

AMINES, LIQUID, CORROSIVE, N.O.S. ( ISOPHORONEDIAMINE · 3,6-DIAZAOCTANE-1,8-DIAMINE )

Air transport (ICAO-TI / IATA-DGR)

AMINES, LIQUID, CORROSIVE, N.O.S. ( ISOPHORONEDIAMINE · 3,6-DIAZAOCTANE-1,8-DIAMINE )

**14.3 Transport hazard class(es):****Land transport (ADR/RID)**

**Class(es) : 8**

**Classification code : C7**

**Hazard identification number**

**(Kemler No.) : 80**

**Tunnel restriction code : E**

**Special provisions : LQ 7 · E 1**

**Hazard label(s) : 8**  
**Sea transport (IMDG)**  
**Class(es) : 8**  
**EmS-No. : F-A / S-B**  
**Special provisions : LQ 5 I - E 1**  
**Hazard label(s) : 8**  
**Air transport (ICAO-TI / IATA-DGR)**  
**Class(es) : 8**  
**Special provisions : E 1**  
**Hazard label(s) : 8**  
**14.4 Packing group: III**  
**14.5 Environmental hazards:**  
Land transport (ADR/RID) : No  
Sea transport (IMDG) : No  
Air transport (ICAO-TI / IATA-DGR) : No  
**14.6 Special precautions for user: None**  
**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:**  
No information available.

## SECTION 15: Regulatory information

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

#### National regulations

Observe in addition any national regulations!

#### Restrictions of occupation

Please consider possible restrictions for the protection of pregnant and breastfeeding women at work (Directive 92/85/EC) and for the protection of young people at work (Directive 94/33/EC).

Water hazard class (WGK)

Class : 2 (Hazardous to water) Classification according to VwVwS

#### Other regulations, restrictions and prohibition regulations

Betriebsicherheitsverordnung (BetrSichV)

No flammable liquid according to BetrSichV.

### 15.2 Chemical safety assessment:

No CSA

## SECTION 16: Other information

### The given R-phrase and H-phrase in chapter 2 and 3 are to read as follows:

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

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..