

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

- 1.1 Product identifier
- Trade name: **TB 2086M (Hardener)**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Sector of Use: SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- Product category: PC1 Adhesives, sealants
- Application of the substance / the mixture: Epoxy resin  
Hardener
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: THREE BOND EUROPE S.A.S      TEL : 33 (0)1 34 32 39 60  
B.P 9105  
95073 CERGY PONTOISE      FAX : 33 (0)1 34 32 39 61  
FRANCE
- Information department: Three Bond Europe H&S department : msds@threebond.fr  
Site : http://quickfds.com
- 1.4 Emergency telephone number: ORFILA (France) - Tel : +33 (0)1 45 42 59 59 (24h)  
Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)  
EU Tel : 112

## SECTION 2: Hazards identification

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



GHS08 health hazard

Repr. 1B      H360D May damage the unborn child.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- 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    GHS08

- Signal word: Danger

- Hazard-determining components of labelling: 2,4,6-tris(dimethylaminomethyl)phenol  
N,N-dimethylformamide

- Hazard statements: H314 Causes severe skin burns and eye damage.

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**Trade name: TB 2086M (Hardener)**

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- Precautionary statements**
- H317 May cause an allergic skin reaction.  
 H360D May damage the unborn child.  
 P280 Wear protective gloves / eye protection.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Additional information:** Restricted to professional users.
- 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:** Mixture of the substances listed below with nonhazardous additions.

**- Dangerous components:**

CAS: 90-72-2 EINECS: 202-013-9 Reg.nr.: 01-2119560597-27	2,4,6-tris(dimethylaminomethyl)phenol ⚠ Skin Corr. 1B, H314; ⚠ Skin Sens. 1B, H317	2.5-<10%
CAS: 100-51-6 EINECS: 202-859-9	Benzyl alcohol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	2.5-<10%
CAS: 98-54-4 EINECS: 202-679-0	4-tert-butylphenol ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; ⚠ Eye Irrit. 2, H319; STOT SE 3, H335	1-<2.5%
CAS: 68-12-2 EINECS: 200-679-5	N,N-dimethylformamide ⚠ Flam. Liq. 3, H226; ⚠ Repr. 1B, H360D; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	0.5-1%
<b>- SVHC</b>		
68-12-2	N,N-dimethylformamide	

- 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** Immediately remove any clothing soiled by the product.
- After inhalation** Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
 In case of unconsciousness place patient stably in side position for transportation.
- After skin contact** Immediately wash with water and soap and rinse thoroughly.  
 If skin irritation continues, consult a doctor.
- After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing** Do not induce vomiting; call for medical help immediately.  
 A person vomiting while lying on their back should be turned onto their side.

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**Trade name: TB 2086M (Hardener)**

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- **4.2 Most important symptoms and effects, both acute and delayed** *Induce vomiting, only if affected person is fully conscious.*
- **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** *CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.  
Use fire fighting measures that suit the environment.*
- **5.2 Special hazards arising from the substance or mixture** *Formation of toxic gases is possible during heating or in case of fire.  
In case of fire, the following can be released:  
Carbon monoxide (CO)*
- **5.3 Advice for firefighters**  
- **Protective equipment:** *Wear self-contained respiratory protective device.  
Wear fully protective suit.*
- **Additional information** *Collect contaminated fire fighting water separately. It must not enter the sewage system.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.*

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** *Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Wear protective clothing.*
- **6.2 Environmental precautions:** *Do not allow product to reach sewage system or any water course.  
Do not allow to enter sewers/ surface or ground water.*
- **6.3 Methods and material for containment and cleaning up:** *Ensure adequate ventilation.  
Absorb liquid components with liquid-binding material.  
Dispose contaminated material as waste according to item 13.*
- **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 disposal information.*

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** *Ensure good ventilation/exhaustion at the workplace.*

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**Trade name: TB 2086M (Hardener)**

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- **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 receptacles:** Store in a cool location.  
Use only receptacles specifically permitted for this substance/product.
- **Information about storage in one common storage facility:** Store away from oxidising agents.  
Store away from reducing agents.  
Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

#### - 8.1 Control parameters

- **Components with limit values that require monitoring at the workplace:**

#### 68-12-2 N,N-dimethylformamide

WEL	Short-term value: 30 mg/m <sup>3</sup> , 10 ppm Long-term value: 15 mg/m <sup>3</sup> , 5 ppm
Sk	

- **Additional information:** The lists that were valid during the creation were used as basis.

#### - 8.2 Exposure controls

#### - Personal protective equipment

#### - General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

#### - Breathing equipment:

Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

#### - Protection of hands:

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

#### - Material of gloves

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

#### - 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.

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Trade name: TB 2086M (Hardener)

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- Eye 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

##### - Appearance:

- Form: Pasty
- Colour: Yellowish
- Odour: Characteristic

##### - Change in condition

- Melting point/freezing point: undetermined
- Initial boiling point and boiling range: Not applicable

- Flash point: 129 °C

- Flammability (solid, gaseous) Not applicable.

- Self igniting: Product is not selfigniting.

- Explosive properties: Product does not present an explosion hazard.

- Vapour pressure: Not determined.

- Density at 25 °C: 1.14

- Evaporation rate: Not determined.

##### - Solubility in / Miscibility with

- Water: Not miscible or difficult to mix

##### - Viscosity:

- dynamic at 25 °C: 10000 mPas (-)

- 9.2 Other information: No further relevant information available.

### 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 and stored according to specifications.

##### - 10.3 Possibility of hazardous reactions

- Exothermic polymerization
- Reacts with alkali, amines and strong acids

- 10.4 Conditions to avoid: No further relevant information available.

- 10.5 Incompatible materials: No further relevant information available.

##### - 10.6 Hazardous

- decomposition products: Poisonous gases/vapours
- Carbon monoxide

### SECTION 11: Toxicological information

#### - 11.1 Information on toxicological effects

- Acute toxicity: Based on available data, the classification criteria are not met.

#### - LD/LC50 values that are relevant for classification:

##### 100-51-6 Benzyl alcohol

- |      |      |                  |
|------|------|------------------|
| Oral | LD50 | 1230 mg/kg (rat) |
|------|------|------------------|

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Dermal	LD50	2000 mg/kg (rabbit)
<b>98-54-4 4-tert-butylphenol</b>		
Oral	LD50	2951 mg/kg (rat)
Dermal	LD50	2288 mg/kg (rabbit)
<b>68-12-2 N,N-dimethylformamide</b>		
Oral	LD50	7600 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rabbit)
Inhalative	LC50/4 h	9400 mg/l (mouse)
<b>1477-55-0 m-phenylenebis(methylamine)</b>		
Oral	LD50	1040 mg/kg (rat)
Inhalative	LC50/4 h	2.4 mg/l (rat)

- **Primary irritant effect:**
- **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.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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** May damage the unborn child.
- **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.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Heavily biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must be specially treated adhering to official regulations.  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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**Trade name: TB 2086M (Hardener)**

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- **Uncleaned packagings:**

- **Recommendation:**

Disposal must be made according to official regulations.  
Dispose of packaging according to regulations on the disposal of packagings.

### SECTION 14: Transport information

- **14.1 UN-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:**

- **Marine pollutant:**

Yes

- **14.6 Special precautions for user**

Not applicable.

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

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.

- **National regulations**

- **Water hazard class:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

68-12-2 | N,N-dimethylformamide

- **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

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H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H360D May damage the unborn child.

H411 Toxic to aquatic life with long lasting effects.

**- Abbreviations and acronyms:** RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organisation  
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  
SVHC: Substances of Very High Concern  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 3: Flammable liquids – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
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  
Skin Sens. 1B: Skin sensitisation – Category 1B  
Repr. 1B: Reproductive toxicity – Category 1B  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

GB



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

**- 1.1 Product identifier**

- Trade name: **TB 2086M (Resin)**

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

- Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

- Product category PC1 Adhesives, sealants

- Application of the substance / the mixture Epoxy resin

**- 1.3 Details of the supplier of the safety data sheet**

- Manufacturer/Supplier: THREE BOND EUROPE S.A.S TEL : 33 (0)1 34 32 39 60  
B.P 9105  
95073 CERGY PONTOISE FAX : 33 (0)1 34 32 39 61  
FRANCE

- Information department: Three Bond Europe H&S department : msds@threebond.fr  
Site : http://quickfds.com

**- 1.4 Emergency telephone number:**

ORFILA (France) - Tel : +33 (0)1 45 42 59 59 (24h)  
Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)  
EU Tel : 112

### SECTION 2: Hazards identification

**- 2.1 Classification of the substance or mixture**

- Classification according to Regulation (EC) No 1272/2008



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



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.

**- 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 GHS09

- Signal word

Warning

- Hazard-determining components of labelling:

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

- Hazard statements

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

- Precautionary statements

P280 Wear protective gloves / eye protection.

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**Trade name: TB 2086M (Resin)**

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P273 Avoid release to the environment.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:** Contains epoxy constituents. May produce an allergic reaction.
- **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:** Mixture of the substances listed below with nonhazardous additions.

**- Dangerous components:**

CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	50-100%
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- **SVHC** None
- **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**
- **After inhalation** Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Do not induce vomiting; call for medical help immediately.  
A person vomiting while lying on their back should be turned onto their side.  
Induce vomiting, only if affected person is fully conscious.
- **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.

GB

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**Trade name: TB 2086M (Resin)**

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## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** *CO2, extinguishing powder or water spray. Fight larger fires with water spray.  
Use fire fighting measures that suit the environment.*
  
- **5.2 Special hazards arising from the substance or mixture** *Formation of toxic gases is possible during heating or in case of fire.  
In case of fire, the following can be released:  
Carbon monoxide (CO)*
  
- **5.3 Advice for firefighters**
- **Protective equipment:** *Wear self-contained respiratory protective device.  
Wear fully protective suit.*
- **Additional information** *Collect contaminated fire fighting water separately. It must not enter the sewage system.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.*

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** *Ensure adequate ventilation  
Wear protective clothing.*
  
- **6.2 Environmental precautions:** *Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.*
  
- **6.3 Methods and material for containment and cleaning up:** *Absorb liquid components with liquid-binding material.  
Dispose contaminated material as waste according to item 13.*
  
- **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 disposal information.*

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** *Ensure good ventilation/exhaustion at the workplace.*
- **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 receptacles:** *Store in a cool location.  
Use only receptacles specifically permitted for this substance/product.*
  
- **Information about storage in one common storage facility:** *Store away from oxidising agents.  
Store away from reducing agents.*

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**Trade name: TB 2086M (Resin)**

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- **Further information about storage conditions:**
- **7.3 Specific end use(s)**

Do not store together with alkalis (caustic solutions).  
Protect from heat and direct sunlight.  
No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:**

No further data; see item 7.

- **8.1 Control parameters**
- **Components with limit 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 creation were used as basis.

- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**

The usual precautionary measures should be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **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 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**

- **Appearance:**

**Form:**

Pasty

**Colour:**

White

- **Odour:**

Characteristic

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**Trade name: TB 2086M (Resin)**

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- <b>Change in condition</b> <b>Melting point/freezing point:</b>	30 à 50 °C
<b>Initial boiling point and boiling range:</b>	Not applicable
- <b>Flash point:</b>	264 °C
- <b>Flammability (solid, gaseous)</b>	Not applicable.
- <b>Self igniting:</b>	Product is not selfigniting.
- <b>Explosive properties:</b>	Product does not present an explosion hazard.
- <b>Vapour pressure:</b>	Not determined.
- <b>Density at 25 °C:</b>	1.17
- <b>Evaporation rate</b>	Not determined.
- <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix
- <b>Viscosity:</b> <b>dynamic at 25 °C:</b>	13000 mPas (-)
- <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- <b>10.1 Reactivity</b>	No further relevant information available.
- <b>10.2 Chemical stability</b>	
- <b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used and stored according to specifications.
- <b>10.3 Possibility of hazardous reactions</b>	Exothermic polymerization Reacts with alkali, amines and strong acids
- <b>10.4 Conditions to avoid</b>	No further relevant information available.
- <b>10.5 Incompatible materials:</b>	No further relevant information available.
- <b>10.6 Hazardous decomposition products:</b>	Poisonous gases/vapours Carbon monoxide

### SECTION 11: Toxicological information

- <b>11.1 Information on toxicological effects</b>	
- <b>Acute toxicity</b>	Based on available data, the classification criteria are not met.

**- LD/LC50 values that are relevant for classification:**
**25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)**

Oral	LD50	> 2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)

- <b>Primary irritant effect:</b>	
- <b>Skin corrosion/irritation</b>	Causes skin irritation.
- <b>Serious eye damage/irritation</b>	Causes serious eye irritation.
- <b>Respiratory or skin sensitisation</b>	May cause an allergic skin reaction.
- <b>CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)</b>	
- <b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
- <b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
- <b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
- <b>STOT-single exposure</b>	Based on available data, the classification criteria are not met.
- <b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met.

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**Trade name: TB 2086M (Resin)**

**- Aspiration hazard**

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

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## SECTION 12: Ecological information

**- 12.1 Toxicity**

No further relevant information available.

**- Aquatic toxicity:**

**- 12.2 Persistence and degradability**

Heavily biodegradable

**- 12.3 Bioaccumulative potential**

No further relevant information available.

**- 12.4 Mobility in soil**

No further relevant information available.

**- Remark:**

Toxic for fish

**- Additional ecological information:**

**- General notes:**



Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

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

**- PBT:**

Not applicable.

**- vPvB:**

Not applicable.

**- 12.6 Other adverse effects**

No further relevant information available.

## SECTION 13: Disposal considerations

**- 13.1 Waste treatment methods**

**- Recommendation**

Must be specially treated adhering to official regulations.



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**- Uncleaned packagings:**

**- Recommendation:**

Dispose of packaging according to regulations on the disposal of packagings.

## SECTION 14: Transport information

**- 14.1 UN-Number**

**- ADR, IMDG, IATA**

UN3082

**- 14.2 UN proper shipping name**

**- ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700))

**- IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)), MARINE POLLUTANT

(Contd. on page 7)

GB

**Trade name: TB 2086M (Resin)**

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- **IATA** *Environmentally hazardous substance, liquid, n.o.s. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700))*

- **14.3 Transport hazard class(es)**

- **ADR**



- **Class**

9 (M6) Miscellaneous dangerous substances and articles.

- **Label**

9

- **IMDG, IATA**



- **Class**

9 Miscellaneous dangerous substances and articles.

- **Label**

9

- **14.4 Packing group**

- **ADR, IMDG, IATA**

III

- **14.5 Environmental hazards:**

*Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)*

- **Marine pollutant:**

Yes

- **Special marking (ADR):**

Symbol (fish and tree)

- **Special marking (IATA):**

Symbol (fish and tree)

Symbol (fish and tree)

- **14.6 Special precautions for user**

Warning: Miscellaneous dangerous substances and articles.

- **Danger code (Kemler):**

90

- **EMS Number:**

F-A,S-F

- **Stowage Category**

A

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

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

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GB

Trade name: TB 2086M (Resin)

(Contd. of page 7)

-	ml
- UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL - A - (EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT = 700)), 9, 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.
- **Seveso category** E2 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **National regulations**
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
  - 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.
- **Abbreviations and acronyms:**
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organisation
  - 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
  - SVHC: Substances of Very High Concern
  - 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
  - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

GB