



## Safety Data Sheet according to Regulation (EC) No 1907/2006

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SDS No. : 377114  
V004.0

LOCTITE ABLESTIK 84-3J known as Ablebond 84-3J

Revision: 27.06.2018  
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Replaces version from: 14.11.2014

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

#### 1.1. Product identifier

LOCTITE ABLESTIK 84-3J known as Ablebond 84-3J

#### Contains:

Bisphenol-F epichlorhydrin resin; MW<700  
1,4-Bis(2,3-epoxypropoxy)butane  
Epichlorohyd.-bisphenol A resin MW<=700

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

Intended use:  
Epoxy adhesive

#### 1.3. Details of the supplier of the safety data sheet

Henkel Ltd  
Wood Lane End  
HP2 4RQ Hemel Hempstead  
  
Great Britain

Phone: +44 1442 278000  
Fax-no.: +44 1442 278071

ua-productsafety.uk@henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (CLP):

|   |                   |
|---|-------------------|
| Skin irritation   | Category 2        |
| H315 Causes skin irritation.                            |                   |
| <b>   Serious eye damage</b>                            | <b>Category 1</b> |
| <b>   H318 Causes serious eye damage.</b>               |                   |
| Skin sensitizer   | Category 1        |
| H317 May cause an allergic skin reaction.               |                   |
| Chronic hazards to the aquatic environment              | Category 3        |
| H412 Harmful to aquatic life with long lasting effects. |                   |

#### 2.2. Label elements

##### Label elements (CLP):

**Hazard pictogram:****Signal word:**

Danger

**Hazard statement:**

H318 Causes serious eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statement:**  
**Prevention**

P273 Avoid release to the environment.

P280 Wear protective gloves/eye protection.

**Precautionary statement:**  
**Response**

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.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

### 2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**General chemical description:**

Adhesive

**Base substances of preparation:**

Epoxy resin

**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

| Hazardous components<br>CAS-No.                          | EC Number<br>REACH-Reg No.                 | content     | Classification   |
|--|--|-------------|--|
| Bisphenol-F epichlorhydrin resin; MW<700<br>9003-36-5    | 500-006-8<br>500-006-8<br>01-2119454392-40 | 2,5- < 25 % | Skin Irrit. 2; Dermal<br>H315<br>Skin Sens. 1A<br>H317<br>Aquatic Chronic 2<br>H411  |
| Quartz (SiO <sub>2</sub> ), <1% respirable<br>14808-60-7 | 238-878-4                                  | 25- 50 %    |  |
| 1,4-Bis(2,3-epoxypropoxy)butane<br>2425-79-8             | 219-371-7<br>01-2119494060-45              | 10- 20 %    | Acute Tox. 4<br>H302<br>Acute Tox. 4<br>H312<br>Acute Tox. 4<br>H332<br>Skin Irrit. 2<br>H315<br>Skin Sens. 1<br>H317<br>Eye Dam. 1<br>H318<br>Aquatic Chronic 3<br>H412 |
| Dapsone<br>80-08-0                                       | 201-248-4<br>01-2119949572-30              | 1- < 5 %    | Acute Tox. 4<br>H302<br>STOT SE 2<br>H371<br>STOT RE 2<br>H373<br>Aquatic Chronic 2<br>H411  |
| Epichlorohyd.-bisphenol A resin<br>MW<=700<br>25068-38-6 | 01-2119456619-26                           | 0,1- < 1 %  | Skin Irrit. 2<br>H315<br>Skin Sens. 1<br>H317<br>Eye Irrit. 2<br>H319<br>Aquatic Chronic 2<br>H411   |

For full text of the H - statements and other abbreviations see section 16 "Other information".  
Substances without classification may have community workplace exposure limits available.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation:

Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.

#### Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

#### Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

#### Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

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

See section: Description of first aid measures

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media:**

water, carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:**

High pressure waterjet

**5.2. Special hazards arising from the substance or mixture**

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) can be released.

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**Additional information:**

In case of fire, keep containers cool with water spray.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

Remove sources of ignition.

**6.2. Environmental precautions**

Do not empty into drains / surface water / ground water.

**6.3. Methods and material for containment and cleaning up**

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

**6.4. Reference to other sections**

See advice in section 8

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid skin and eye contact.

See advice in section 8

**Hygiene measures:**

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

**7.2. Conditions for safe storage, including any incompatibilities**

Ensure good ventilation/extraction.

Keep container tightly sealed.

Keep frozen.

Refer to Technical Data Sheet

**7.3. Specific end use(s)**

Epoxy adhesive

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure Limits**

Valid for  
Great Britain

| Ingredient [Regulated substance]  | ppm | mg/m <sup>3</sup> | Value type                   | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|------------------------------|--|-----------------|
| Quartz (SiO <sub>2</sub> )<br>14808-60-7<br>[SILICA, RESPIRABLE CRYSTALLINE]                          |     | 0,1               | Time Weighted Average (TWA): |  | EH40 WEL        |
| Quartz (SiO <sub>2</sub> )<br>14808-60-7<br>[RESPIRABLE CRYSTALLINE SILICA DUST, RESPIRABLE FRACTION] |     | 0,1               | Time Weighted Average (TWA): |  | EU OELIII       |

**Occupational Exposure Limits**

Valid for  
Ireland

| Ingredient [Regulated substance]  | ppm | mg/m <sup>3</sup> | Value type                   | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|------------------------------|--|-----------------|
| Quartz (SiO <sub>2</sub> )<br>14808-60-7<br>[QUARTZ, RESPIRABLE DUST (SEE CRYSTALLINE SILICA)]        |     | 0,1               | Time Weighted Average (TWA): |  | IR_OEL          |
| Quartz (SiO <sub>2</sub> )<br>14808-60-7<br>[RESPIRABLE CRYSTALLINE SILICA DUST, RESPIRABLE FRACTION] |     | 0,1               | Time Weighted Average (TWA): |  | EU OELIII       |

**Predicted No-Effect Concentration (PNEC):**

| Name on list   | Environmental Compartment    | Exposure period | Value       |     |              |        | Remarks |
|--|------------------------------|-----------------|-------------|-----|--------------|--------|---------|
|  |                              |                 | mg/l        | ppm | mg/kg        | others |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | aqua (freshwater)            |                 | 0,003 mg/l  |     |              |        |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | aqua (marine water)          |                 | 0,0003 mg/l |     |              |        |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | sewage treatment plant (STP) |                 | 10 mg/l     |     |              |        |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | sediment (freshwater)        |                 |             |     | 0,294 mg/kg  |        |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | sediment (marine water)      |                 |             |     | 0,0294 mg/kg |        |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | soil                         |                 |             |     | 0,237 mg/kg  |        |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | aqua (intermittent releases) |                 | 0,0254 mg/l |     |              |        |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | Air                          |                 |             |     |              |        |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | Predator                     |                 |             |     |              |        |         |
| Dapsone<br>80-08-0   | aqua (freshwater)            |                 | 0,004 mg/l  |     |              |        |         |
| Dapsone<br>80-08-0   | aqua (marine water)          |                 | 0 mg/l      |     |              |        |         |
| Dapsone<br>80-08-0   | aqua (intermittent releases) |                 | 0,01 mg/l   |     |              |        |         |
| Dapsone<br>80-08-0   | sewage treatment plant (STP) |                 | 10 mg/l     |     |              |        |         |
| Dapsone<br>80-08-0   | sediment (freshwater)        |                 |             |     | 0,041 mg/kg  |        |         |
| Dapsone<br>80-08-0   | sediment (marine water)      |                 |             |     | 0,004 mg/kg  |        |         |
| Dapsone<br>80-08-0   | Air                          |                 |             |     |              |        |         |
| Dapsone<br>80-08-0   | soil                         |                 |             |     | 0,006 mg/kg  |        |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | aqua (freshwater)            |                 | 0,006 mg/l  |     |              |        |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | aqua (marine water)          |                 | 0,001 mg/l  |     |              |        |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | sewage treatment plant (STP) |                 | 10 mg/l     |     |              |        |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | sediment (freshwater)        |                 |             |     | 0,996 mg/kg  |        |         |

|  |                                 |  |            |  |             |  |  |
|--|---------------------------------|--|------------|--|-------------|--|--|
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | sediment<br>(marine water)      |  |            |  | 0,1 mg/kg   |  |  |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | soil                            |  |            |  | 0,196 mg/kg |  |  |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | oral                            |  |            |  | 11 mg/kg    |  |  |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | aqua<br>(intermittent releases) |  | 0,018 mg/l |  |             |  |  |

**Derived No-Effect Level (DNEL):**

| Name on list   | Application Area   | Route of Exposure | Health Effect                                | Exposure Time | Value        | Remarks |
|--|--------------------|-------------------|--|---------------|--------------|---------|
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | Workers            | dermal            | Long term exposure - systemic effects        |               | 104,15 mg/kg |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | Workers            | Inhalation        | Long term exposure - systemic effects        |               | 29,39 mg/m3  |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | General population | dermal            | Long term exposure - systemic effects        |               | 62,5 mg/kg   |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | General population | Inhalation        | Long term exposure - systemic effects        |               | 8,7 mg/m3    |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | General population | oral              | Long term exposure - systemic effects        |               | 6,25 mg/kg   |         |
| Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>9003-36-5  | Workers            | dermal            | Long term exposure - local effects           |               | 8,3 µg/cm2   |         |
| Dapsone<br>80-08-0   | Workers            | inhalation        | Long term exposure - systemic effects        |               | 2,5 mg/m3    |         |
| Dapsone<br>80-08-0   | Workers            | inhalation        | Acute/short term exposure - systemic effects |               | 2,5 mg/m3    |         |
| Dapsone<br>80-08-0   | Workers            | inhalation        | Long term exposure - local effects           |               | 0,35 mg/m3   |         |
| Dapsone<br>80-08-0   | Workers            | inhalation        | Acute/short term exposure - local effects    |               | 0,35 mg/m3   |         |
| Dapsone<br>80-08-0   | Workers            | dermal            | Long term exposure - systemic effects        |               | 0,35 mg/kg   |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | Workers            | dermal            | Acute/short term exposure - systemic effects |               | 8,33 mg/kg   |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | Workers            | Inhalation        | Acute/short term exposure - systemic effects |               | 12,25 mg/m3  |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | Workers            | dermal            | Long term exposure - systemic effects        |               | 8,33 mg/kg   |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | Workers            | Inhalation        | Long term exposure - systemic effects        |               | 12,25 mg/m3  |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | General population | dermal            | Acute/short term exposure - systemic effects |               | 3,571 mg/kg  |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | General population | dermal            | Long term exposure - systemic effects        |               | 3,571 mg/kg  |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | General population | oral              | Acute/short term exposure - systemic effects |               | 0,75 mg/kg   |         |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)<br>25068-38-6 | General population | oral              | Long term exposure - systemic effects        |               | 0,75 mg/kg   |         |



|   |                    |            |  |  |            |  |
|---|--------------------|------------|--|--|------------|--|
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6 | General population | inhalation | Acute/short term exposure - systemic effects |  | 0,75 mg/m3 |  |
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6 | General population | inhalation | Long term exposure - systemic effects        |  | 0,75 mg/m3 |  |

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to &gt; 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; &gt;= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to &gt; 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; &gt;= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

|                            |                                    |
|----------------------------|------------------------------------|
| Appearance                 | paste<br>blue                      |
| Odor                       | Slight                             |
| Odour threshold            | No data available / Not applicable |
| pH                         | No data available / Not applicable |
| Melting point              | No data available / Not applicable |
| Solidification temperature | No data available / Not applicable |
| Initial boiling point      | Not applicable                     |

|  |                                    |
|--|------------------------------------|
| Flash point                                  | > 93 °C (> 199.4 °F)               |
| Evaporation rate                             | No data available / Not applicable |
| Flammability                                 | No data available / Not applicable |
| Explosive limits                             | No data available / Not applicable |
| Vapour pressure                              | Not applicable                     |
| Relative vapour density:                     | No data available / Not applicable |
| Density                                      | No data available / Not applicable |
| Bulk density                                 | No data available / Not applicable |
| Solubility                                   | No data available / Not applicable |
| Solubility (qualitative)<br>(Solvent: Water) | Insoluble                          |
| Partition coefficient: n-octanol/water       | No data available / Not applicable |
| Auto-ignition temperature                    | No data available / Not applicable |
| Decomposition temperature                    | No data available / Not applicable |
| Viscosity                                    | No data available / Not applicable |
| Viscosity (kinematic)                        | No data available / Not applicable |
| Explosive properties                         | No data available / Not applicable |
| Oxidising properties                         | No data available / Not applicable |

**9.2. Other information**

No data available / Not applicable

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

Reacts with alcohols and amines.

Reacts with oxidants, acids and lyes

Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

No decomposition if stored and applied as directed.

**10.5. Incompatible materials**

None if used properly.

**10.6. Hazardous decomposition products**

Hydrocarbons

carbon oxides.

nitrogen oxides

Rapid polymerisation may generate excessive heat and pressure.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value         | Species       | Method                                   |
|---|---------------|---------------|---------------|--|
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | LD50          | > 5.000 mg/kg | rat           | OECD Guideline 401 (Acute Oral Toxicity) |
| Quartz (SiO <sub>2</sub> ), <1%<br>respirable<br>14808-60-7 | LD50          | > 2.000 mg/kg | not specified | not specified                            |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8            | LD50          | 1.118 mg/kg   | rat           | OECD Guideline 401 (Acute Oral Toxicity) |
| Dapsone<br>80-08-0  | LD50          | 375 mg/kg     | mouse         | not specified                            |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | LD50          | > 2.000 mg/kg | rat           | OECD Guideline 420 (Acute Oral Toxicity) |

#### Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value         | Species       | Method                                     |
|---|---------------|---------------|---------------|--|
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | LD50          | > 2.000 mg/kg | rat           | OECD Guideline 402 (Acute Dermal Toxicity) |
| Quartz (SiO <sub>2</sub> ), <1%<br>respirable<br>14808-60-7 | LD50          | > 2.000 mg/kg | not specified | not specified                              |
| Dapsone<br>80-08-0  | LD50          | > 2.000 mg/kg | rabbit        | EPA OPP 81-2 (Acute Dermal Toxicity)       |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | LD50          | > 2.000 mg/kg | rat           | not specified                              |

#### Acute inhalative toxicity:

No substance data available.

No data available.

#### Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result                   | Exposure<br>time | Species | Method   |
|---|--------------------------|------------------|---------|--|
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | irritating               | 4 h              | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Dapsone<br>80-08-0  | not irritating           | 4 h              | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | moderately<br>irritating | 24 h             | rabbit  | Draize Test  |

**Serious eye damage/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result  | Exposure<br>time | Species                          | Method  |
|---|---|------------------|----------------------------------|---|
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | not irritating  |                  | rabbit                           | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8            | Category 1<br>(irreversible<br>effects on the<br>eye) |                  | rabbit                           | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Dapsone<br>80-08-0  | not irritating  |                  | Bovine, cornea,<br>in vitro test | OECD Guideline 437 (BCOP)                             |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | not irritating  |                  | rabbit                           | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

**Respiratory or skin sensitization:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result          | Test type                             | Species    | Method   |
|---|-----------------|---------------------------------------|------------|--|
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | sensitising     | Mouse local lymphnode<br>assay (LLNA) | mouse      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay) |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8            | sensitising     | Guinea pig maximisation<br>test       | guinea pig | OECD Guideline 406 (Skin Sensitisation)                            |
| Dapsone<br>80-08-0  | not sensitising | Mouse local lymphnode<br>assay (LLNA) | mouse      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay) |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | sensitising     | Mouse local lymphnode<br>assay (LLNA) | mouse      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay) |

**Germ cell mutagenicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result   | Type of study /<br>Route of<br>administration          | Metabolic<br>activation /<br>Exposure time | Species | Method  |
|---|----------|--|--|---------|---|
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | positive | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)   |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8            | positive | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)   |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8            | positive | in vitro mammalian<br>chromosome<br>aberration test    | with and without                           |         | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)                              |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8            | positive | mammalian cell<br>gene mutation assay                  | with and without                           |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                 |
| Dapsone<br>80-08-0  | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)   |
| Dapsone<br>80-08-0  | negative | mammalian cell<br>gene mutation assay                  | with and without                           |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                 |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 472 (Genetic<br>Toxicology: Escherichia coli,<br>Reverse Mutation Assay)               |
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | negative | oral: gavage   |  | mouse   | OECD Guideline 474<br>(Mammalian Erythrocyte<br>Micronucleus Test)                                    |
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | negative | oral: gavage   |  | rat     | OECD Guideline 486<br>(Unscheduled DNA Synthesis<br>(UDS) Test with Mammalian<br>Liver Cells in vivo) |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8            | negative | oral: gavage   |  | mouse   | OECD Guideline 474<br>(Mammalian Erythrocyte<br>Micronucleus Test)                                    |
| Dapsone<br>80-08-0  | negative | oral: gavage   |  | mouse   | OECD Guideline 474<br>(Mammalian Erythrocyte<br>Micronucleus Test)                                    |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | negative | oral: gavage   |  | mouse   | not specified   |

**Carcinogenicity**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous components<br>CAS-No.                          | Result           | Route of<br>application | Exposure<br>time /<br>Frequency<br>of treatment | Species | Sex         | Method   |
|--|------------------|-------------------------|---|---------|-------------|--|
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6 | not carcinogenic | dermal                  | 2 y<br>daily                                    | mouse   | male        | OECD Guideline 453<br>(Combined Chronic<br>Toxicity /<br>Carcinogenicity<br>Studies) |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6 | not carcinogenic | oral: gavage            | 2 y<br>daily                                    | rat     | male/female | OECD Guideline 453<br>(Combined Chronic<br>Toxicity /<br>Carcinogenicity<br>Studies) |

**Reproductive toxicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result / Value  | Test type                   | Route of<br>application | Species | Method   |
|---|---|-----------------------------|-------------------------|---------|--|
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | NOAEL P > 750 mg/kg<br>NOAEL F1 750 mg/kg<br>NOAEL F2 750 mg/kg       | two-<br>generation<br>study | oral: gavage            | rat     | OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study) |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | NOAEL P >= 50 mg/kg<br>NOAEL F1 >= 750 mg/kg<br>NOAEL F2 >= 750 mg/kg | Two<br>generation<br>study  | oral: gavage            | rat     | OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study) |

**STOT-single exposure:**

No data available.

**STOT-repeated exposure::**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result / Value  | Route of<br>application | Exposure time /<br>Frequency of<br>treatment | Species | Method   |
|---|-----------------|-------------------------|--|---------|--|
| Bisphenol-F<br>epichlorhydrin resin;<br>MW<700<br>9003-36-5 | NOAEL 250 mg/kg | oral: gavage            | 13 w<br>daily                                | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents) |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8            | NOAEL 200 mg/kg | oral: gavage            | 28 d<br>daily                                | rat     | OECD Guideline 407<br>(Repeated Dose 28-Day<br>Oral Toxicity in Rodents) |
| Dapsone<br>80-08-0  | NOAEL 3 mg/kg   | oral: gavage            | 90 d<br>once daily                           | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents) |
| Epichlorohyd.-bisphenol<br>A resin MW<=700<br>25068-38-6    | NOAEL 50 mg/kg  | oral: gavage            | 14 w<br>daily                                | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents) |

**Aspiration hazard:**

No data available.

## SECTION 12: Ecological information

### General ecological information:

Do not empty into drains / surface water / ground water.

### 12.1. Toxicity

#### Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                          | Value<br>type | Value        | Exposure time | Species                                      | Method  |
|--|---------------|--------------|---------------|--|---|
| Bisphenol-F epichlorhydrin<br>resin; MW<700<br>9003-36-5 | LC50          | 5,7 mg/l     | 96 h          | Leuciscus idus                               | OECD Guideline 203 (Fish,<br>Acute Toxicity Test) |
| Quartz (SiO <sub>2</sub> ), <1% respirable<br>14808-60-7 | LC50          | > 1.000 mg/l |               |  | OECD Guideline 203 (Fish,<br>Acute Toxicity Test) |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8         | LC50          | 24 mg/l      | 96 h          | Brachydanio rerio (new name:<br>Danio rerio) | OECD Guideline 203 (Fish,<br>Acute Toxicity Test) |
| Dapsone<br>80-08-0                                       | LC50          | > 100 mg/l   | 96 h          | Cyprinus carpio                              | OECD Guideline 203 (Fish,<br>Acute Toxicity Test) |
| Epichlorohyd.-bisphenol A<br>resin MW<=700<br>25068-38-6 | LC50          | 1,75 mg/l    | 96 h          | Oncorhynchus mykiss                          | OECD Guideline 203 (Fish,<br>Acute Toxicity Test) |

#### Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                          | Value<br>type | Value        | Exposure time | Species       | Method   |
|--|---------------|--------------|---------------|---------------|--|
| Bisphenol-F epichlorhydrin<br>resin; MW<700<br>9003-36-5 | EC50          | 2,55 mg/l    | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| Quartz (SiO <sub>2</sub> ), <1% respirable<br>14808-60-7 | EC50          | > 1.000 mg/l |               | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8         | EC50          | 75 mg/l      | 24 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| Epichlorohyd.-bisphenol A<br>resin MW<=700<br>25068-38-6 | EC50          | 1,7 mg/l     | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |

#### Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                          | Value<br>type | Value     | Exposure time | Species       | Method   |
|--|---------------|-----------|---------------|---------------|--|
| Bisphenol-F epichlorhydrin<br>resin; MW<700<br>9003-36-5 | NOEC          | 0,3 mg/l  | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test) |
| Dapsone<br>80-08-0                                       | NOEC          | 0,22 mg/l | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test) |
| Epichlorohyd.-bisphenol A<br>resin MW<=700<br>25068-38-6 | NOEC          | 0,3 mg/l  | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test) |

#### Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                          | Value<br>type | Value        | Exposure time | Species   | Method   |
|--|---------------|--------------|---------------|---|--|
| Bisphenol-F epichlorhydrin<br>resin; MW<700<br>9003-36-5 | EC50          | 1,8 mg/l     | 72 h          | Pseudokirchneriella subcapitata   | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Quartz (SiO <sub>2</sub> ), <1% respirable<br>14808-60-7 | EC50          | > 1.000 mg/l |               |   | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Dapsone<br>80-08-0                                       | EC50          | 2,7 mg/l     | 72 h          | Selenastrum capricornutum<br>(new name: Pseudokirchneriella<br>subcapitata) | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Epichlorohyd.-bisphenol A<br>resin MW<=700<br>25068-38-6 | EC50          | > 11 mg/l    | 72 h          | Scenedesmus capricornutum   | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Epichlorohyd.-bisphenol A<br>resin MW<=700<br>25068-38-6 | NOEC          | 4,2 mg/l     | 72 h          | Scenedesmus capricornutum   | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |

### Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                          | Value<br>type | Value        | Exposure time | Species  | Method   |
|--|---------------|--------------|---------------|--|--|
| Bisphenol-F epichlorhydrin<br>resin; MW<700<br>9003-36-5 | IC50          | > 100 mg/l   | 3 h           | activated sludge, industrial                           | other guideline:   |
| Quartz (SiO <sub>2</sub> ), <1% respirable<br>14808-60-7 | EC0           | > 1.000 mg/l |               |  | not specified  |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8         | EC 50         | > 100 mg/l   | 3 h           |  | OECD Guideline 209<br>(Activated Sludge,<br>Respiration Inhibition Test) |
| Dapsone<br>80-08-0                                       | EC50          | > 1.000 mg/l | 3 h           | activated sludge of a<br>predominantly domestic sewage | OECD Guideline 209<br>(Activated Sludge,<br>Respiration Inhibition Test) |
| Epichlorohyd.-bisphenol A<br>resin MW<=700<br>25068-38-6 | IC50          | > 100 mg/l   | 3 h           | activated sludge, industrial                           | other guideline:   |

### 12.2. Persistence and degradability

The product is not biodegradable.

| Hazardous substances<br>CAS-No.                          | Result                     | Test type | Degradability | Exposure<br>time | Method  |
|--|----------------------------|-----------|---------------|------------------|---|
| Bisphenol-F epichlorhydrin<br>resin; MW<700<br>9003-36-5 | not readily biodegradable. | aerobic   | 0 %           | 28 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)           |
| 1,4-Bis(2,3-<br>epoxypropoxy)butane<br>2425-79-8         |                            | aerobic   | 38 %          | 28 d             | OECD Guideline 301 E (Ready<br>biodegradability: Modified OECD<br>Screening Test) |
| Dapsone<br>80-08-0                                       | not readily biodegradable. | aerobic   | > 0 - < 1 %   | 28 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)           |
| Epichlorohyd.-bisphenol A<br>resin MW<=700<br>25068-38-6 | not readily biodegradable. | aerobic   | 5 %           | 28 d             | OECD Guideline 301 F (Ready<br>Biodegradability: Manometric<br>Respirometry Test) |

### 12.3. Bioaccumulative potential

No data available.

No substance data available.

### 12.4. Mobility in soil

Cured adhesives are immobile.



| Hazardous substances<br>CAS-No.                       | LogPow    | Temperature | Method  |
|---|-----------|-------------|---|
| Bisphenol-F epichlorhydrin resin; MW<700<br>9003-36-5 | 2,7 - 3,6 |             | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| 1,4-Bis(2,3-epoxypropoxy)butane<br>2425-79-8          | -0,269    | 25 °C       | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Dapsone<br>80-08-0                                    | 0,97      | 25 °C       | QSAR (Quantitative Structure Activity Relationship)                         |
| Epichlorohyd.-bisphenol A resin MW<=700<br>25068-38-6 | 3,242     | 25 °C       | EU Method A.8 (Partition Coefficient)                                       |

#### 12.5. Results of PBT and vPvB assessment

| Hazardous substances<br>CAS-No.                          | PBT / vPvB  |
|--|---|
| Bisphenol-F epichlorhydrin resin; MW<700<br>9003-36-5    | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.           |
| Quartz (SiO <sub>2</sub> ), <1% respirable<br>14808-60-7 | According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances. |
| 1,4-Bis(2,3-epoxypropoxy)butane<br>2425-79-8             | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.           |
| Dapsone<br>80-08-0                                       | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.           |
| Epichlorohyd.-bisphenol A resin MW<=700<br>25068-38-6    | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.           |

#### 12.6. Other adverse effects

No data available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

**SECTION 14: Transport information****14.1. UN number**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.2. UN proper shipping name**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

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

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.4. Packing group**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.5. Environmental hazards**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

**14.6. Special precautions for user**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

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

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content < 3 %  
(2010/75/EC)

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

**SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H371 May cause damage to organs.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

**Further information:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

**Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.**