# **Contact Sheet**



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

Page 1 of 13

Loctite EA 3450A

SDS No. : 378937 V003.0 Revision: 20.03.2017 printing date: 12.06.2017 Replaces version from: 16.07.2015

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

#### 1.1. Product identifier

Loctite EA 3450A

#### **Contains:**

Epoxy resin (number average molecular weight  $\leq$  700) RP Bisphenol F-epichlorohydrin resin, MW<=700

**1.2. Relevant identified uses of the substance or mixture and uses advised against** Intended use:

Epoxy resin

#### 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.                          |            |
| Serious eye irritation                                | Category 2 |
| H319 Causes serious eye irritation.                   |            |
| Skin sensitizer                                       | Category 1 |
| H317 May cause an allergic skin reaction.             |            |
| Chronic hazards to the aquatic environment            | Category 2 |
| H411 Toxic to aquatic life with long lasting effects. |            |

#### 2.2. Label elements

Label elements (CLP):

| Hazard pictogram:                      |  |
|--|--|
| Signal word:                           | Warning  |
| Hazard statement:                      | <ul><li>H315 Causes skin irritation.</li><li>H317 May cause an allergic skin reaction.</li><li>H319 Causes serious eye irritation.</li><li>H411 Toxic to aquatic life with long lasting effects.</li></ul>     |
| Precautionary statement:<br>Prevention | P273 Avoid release to the environment.<br>P280 Wear protective gloves.   |
| Precautionary statement:<br>Response   | P302+P352 IF ON SKIN: Wash with plenty of soap and water.<br>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.<br>P337+P313 If eye irritation persists: 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:

Part A of two part adhesive

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

| Hazardous components<br>CAS-No.                                      | EC Number<br>REACH-Reg No.                 | content  | Classification   |
|--|--|----------|--|
| Epoxy resin (number average molecular<br>weight ≤ 700)<br>25068-38-6 | 500-033-5<br>500-033-5<br>01-2119456619-26 | 25- 50 % | Skin Irrit. 2<br>H315<br>Skin Sens. 1<br>H317<br>Eye Irrit. 2<br>H319<br>Aquatic Chronic 2<br>H411 |
| RP Bisphenol F-epichlorohydrin resin,<br>MW<=700<br>28064-14-4       |  | 10- 20 % | Skin Irrit. 2<br>H315<br>Skin Sens. 1<br>H317<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:

Move to fresh air, consult doctor if complaint persists.

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

SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

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:** None known

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

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

#### **5.3. Advice for firefighters** Wear self-contained breathing apparatus. Wear protective equipment.

#### 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.

#### 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. Wash spillage site thoroughly with soap and water or detergent solution.

**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:

Do not eat, drink or smoke while working. Wash hands before work breaks and after finishing work. Good industrial hygiene practices should be observed.

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

Store only in the original container. Store in a cool, dry place. Refer to Technical Data Sheet

### 7.3. Specific end use(s)

Epoxy resin

#### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### **Occupational Exposure Limits**

Valid for

Great Britain

| Ingredient [Regulated substance]                                     | ррт | mg/m <sup>3</sup> | Value type                      | Short term exposure limit<br>category / Remarks | Regulatory list |
|--|-----|-------------------|---------------------------------|---|-----------------|
| Barium sulfate<br>7727-43-7<br>[BARIUM SULPHATE, INHALABLE<br>DUST]  |     | 10                | Time Weighted Average<br>(TWA): |   | EH40 WEL        |
| Barium sulfate<br>7727-43-7<br>[BARIUM SULPHATE, RESPIRABLE<br>DUST] |     | 4                 | Time Weighted Average<br>(TWA): |   | EH40 WEL        |
| Talc (Mg3H2(SiO3)4)<br>14807-96-6<br>[TALC, RESPIRABLE DUST]         |     | 1                 | Time Weighted Average (TWA):    |   | EH40 WEL        |

#### **Occupational Exposure Limits**

Valid for

Ireland

| Ingredient [Regulated substance]                                     | ррт | mg/m <sup>3</sup> | Value type                      | Short term exposure limit<br>category / Remarks | Regulatory list |
|--|-----|-------------------|---------------------------------|---|-----------------|
| Barium sulfate<br>7727-43-7<br>[BARIUM SULPHATE, RESPIRABLE<br>DUST] |     | 2                 | Time Weighted Average<br>(TWA): |   | IR_OEL          |
| Talc (Mg3H2(SiO3)4)<br>14807-96-6<br>[TALC, TOTAL INHALABLE DUST]    |     | 10                | Time Weighted Average (TWA):    |   | IR_OEL          |
| Talc (Mg3H2(SiO3)4)<br>14807-96-6<br>[TALC, RESPIRABLE DUST]         |     | 0,8               | Time Weighted Average<br>(TWA): |   | IR_OEL          |

| Name on list  | Environmental<br>Compartment       | Exposure<br>period | Value      |     |                | Remarks |  |
|---|------------------------------------|--------------------|------------|-----|----------------|---------|--|
|   | <b>^</b>                           | <b>^</b>           | mg/l       | ppm | mg/kg          | others  |  |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | aqua<br>(freshwater)               |                    | 0,006 mg/l |     |                |         |  |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | aqua (marine<br>water)             |                    | 0,001 mg/l |     |                |         |  |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | aqua<br>(intermittent<br>releases) |                    | 0,018 mg/l |     |                |         |  |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | sewage<br>treatment plant<br>(STP) |                    | 10 mg/l    |     |                |         |  |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | sediment<br>(freshwater)           |                    |            |     | 0,996<br>mg/kg |         |  |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | sediment<br>(marine water)         |                    |            |     | 0,1 mg/kg      |         |  |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | soil                               |                    |            |     | 0,196<br>mg/kg |         |  |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | oral                               |                    |            |     | 11 mg/kg       |         |  |

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

| Name on list  | Application<br>Area   | Route of<br>Exposure | Health Effect                                      | Exposure<br>Time | Value             | Remarks |
|---|-----------------------|----------------------|--|------------------|-------------------|---------|
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | Workers               | dermal               | Acute/short term<br>exposure -<br>systemic effects |                  | 8,33 mg/kg bw/day |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | Workers               | Inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 12,25 mg/m3       |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | Workers               | dermal               | Long term<br>exposure -<br>systemic effects        |                  | 8,33 mg/kg        |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | Workers               | Inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 12,25 mg/m3       |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | General population    | dermal               | Acute/short term<br>exposure -<br>systemic effects |                  | 3,571 mg/kg       |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | General<br>population | dermal               | Long term<br>exposure -<br>systemic effects        |                  | 3,571 mg/kg       |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | General population    | Inhalation           | Acute/short term<br>exposure -<br>systemic effects |                  | 0,75 mg/m3        |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | General population    | Inhalation           | Long term<br>exposure -<br>systemic effects        |                  | 0,75 mg/m3        |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | General population    | oral                 | Acute/short term<br>exposure -<br>systemic effects |                  | 0,75 mg/kg        |         |
| Reaction product: bisphenol-A-<br>(epichlorhydrin); epoxy resin (number<br>average molecular weight <= 700)<br>25068-38-6 | General population    | oral                 | Long term<br>exposure -<br>systemic effects        |                  | 0,75 mg/kg        |         |

#### **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 > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

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

nitrile rubber (NBR; >= 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: Protective goggles Protective eye equipment should conform to EN166.

Skin protection: 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                             | liquid                             |
|--|------------------------------------|
| ••                                     | liquid                             |
|  | black                              |
| Odor                                   | characteristic                     |
| Odour threshold                        | No data available / Not applicable |
|  |                                    |
| pH                                     | Not available.                     |
| Initial boiling point                  | > 250 °C (> 482 °F)                |
| Flash point                            | > 93 °C (> 199.4 °F); no method    |
| Decomposition temperature              | No data available / Not applicable |
| Vapour pressure                        | < 700 mbar                         |
| (50 °C (122 °F))                       |                                    |
| Density                                | 1,7 g/cm3                          |
| 0                                      |                                    |
| Bulk density                           | 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 |
| Solubility (qualitative)               | No data available / Not applicable |
| Solidification temperature             | No data available / Not applicable |
| Melting point                          | No data available / Not applicable |
| Flammability                           | No data available / Not applicable |
| Auto-ignition temperature              | No data available / Not applicable |
| Explosive limits                       | No data available / Not applicable |
| Partition coefficient: n-octanol/water | No data available / Not applicable |
| Evaporation rate                       | No data available / Not applicable |
| Vapor density                          | 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

Reaction with strong bases Reaction with strong acids. Avoid contact with amines. Reaction with strong oxidants.

#### **10.2.** Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

See section reactivity

#### 10.4. Conditions to avoid

Stable under normal conditions of storage and use.

#### **10.5. Incompatible materials**

See section reactivity.

#### 10.6. Hazardous decomposition products

carbon oxides.

#### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

#### General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### **Oral toxicity:**

May cause irritation to the digestive tract.

#### Skin irritation:

Causes skin irritation.

#### Eye irritation:

Causes serious eye irritation.

#### Sensitizing:

May cause an allergic skin reaction.

#### Acute oral toxicity:

| Hazardous components<br>CAS-No.   | Value<br>type | Value         | Route of application | Exposure<br>time | Species | Method                                      |
|---|---------------|---------------|----------------------|------------------|---------|---|
| Epoxy resin (number<br>average molecular weight<br>≤ 700)<br>25068-38-6 | LD50          | > 2.000 mg/kg | oral                 |                  | rat     | OECD Guideline 420 (Acute<br>Oral Toxicity) |
| RP Bisphenol F-<br>epichlorohydrin resin,<br>MW<=700<br>28064-14-4      | LD50          | > 5.000 mg/kg | oral                 |                  | rat     | OECD Guideline 401 (Acute<br>Oral Toxicity) |

#### Acute dermal toxicity:

| Hazardous components<br>CAS-No.   | Value<br>type | Value         | Route of application | Exposure<br>time | Species | Method        |
|---|---------------|---------------|----------------------|------------------|---------|---------------|
| Epoxy resin (number<br>average molecular weight<br>≤ 700)<br>25068-38-6 | LD50          | > 2.000 mg/kg | dermal               |                  | rat     | not specified |

#### Skin corrosion/irritation:

| Hazardous components<br>CAS-No.   | Result                | Exposure<br>time | Species | Method      |
|---|-----------------------|------------------|---------|-------------|
| Epoxy resin (number<br>average molecular weight<br>≤ 700)<br>25068-38-6 | moderately irritating | 24 h             | rabbit  | Draize Test |

#### Serious eye damage/irritation:

| Hazardous components<br>CAS-No.   | Result         | Exposure<br>time | Species | Method   |
|---|----------------|------------------|---------|--|
| Epoxy resin (number<br>average molecular weight<br>≤ 700)<br>25068-38-6 | not irritating |                  | rabbit  | OECD Guideline 405 (Acute<br>Eye Irritation / Corrosion) |
| RP Bisphenol F-<br>epichlorohydrin resin,<br>MW<=700<br>28064-14-4      | not irritating |                  | rabbit  | OECD Guideline 405 (Acute<br>Eye Irritation / Corrosion) |

#### Respiratory or skin sensitization:

| Hazardous components<br>CAS-No.                           | Result      | Test type                  | Species | Method  |
|---|-------------|----------------------------|---------|---|
| Epoxy resin (number<br>average molecular weight<br>≤ 700) | sensitising | Mouse<br>local<br>lymphnod | mouse   | OECD Guideline 429 (Skin<br>Sensitisation: Local Lymph<br>Node Assay) |
| 25068-38-6  |             | e assay<br>(LLNA)          |         |   |

#### Germ cell mutagenicity:

| Hazardous components<br>CAS-No.   | Result   | Type of study /<br>Route of<br>administration          | Metabolic<br>activation /<br>Exposure time | Species | Method  |
|---|----------|--|--|---------|---|
| Epoxy resin (number<br>average molecular weight<br>≤ 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) |
| Epoxy resin (number<br>average molecular weight<br>≤ 700)<br>25068-38-6 | negative | oral: gavage   |  | mouse   | not specified   |

#### Carcinogenicity:

| Hazardous components<br>CAS-No.   | Result           | Species | Sex         | Exposure<br>timeFrequenc<br>y of treatment | Route of application | Method  |
|---|------------------|---------|-------------|--|----------------------|---|
| Epoxy resin (number<br>average molecular weight<br>≤ 700)<br>25068-38-6 | not carcinogenic | mouse   | male        | 2 y<br>daily                               | dermal               | OECD Guideline 453<br>(Combined Chronic<br>Toxicity / Carcinogenicity<br>Studies) |
| Epoxy resin (number<br>average molecular weight<br>≤ 700)<br>25068-38-6 | not carcinogenic | rat     | male/female | 2 y<br>daily                               | oral: gavage         | OECD Guideline 453<br>(Combined Chronic<br>Toxicity / Carcinogenicity<br>Studies) |

#### **Reproductive toxicity:**

| Hazardous substances<br>CAS-No. | Result / Classification   | Species                                    | Exposure<br>time | Species | Method   |
|---------------------------------|---|--|------------------|---------|--|
| 1 5                             | NOAEL P = >= 50 mg/kg<br>NOAEL F1 = >= 750 mg/kg<br>NOAEL F2 = >= 750 mg/kg | Two<br>generation<br>study<br>oral: gavage | 238 d            | rat     | OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study) |

#### **Repeated dose toxicity**

| Hazardous components<br>CAS-No.   | Result         | Route of application | Exposure time /<br>Frequency of<br>treatment | Species | Method   |
|---|----------------|----------------------|--|---------|--|
| Epoxy resin (number<br>average molecular weight<br>≤ 700)<br>25068-38-6 | NOAEL=50 mg/kg | oral: gavage         | 14 wdaily                                    | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day Oral<br>Toxicity in Rodents) |

#### **SECTION 12: Ecological information**

#### General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### 12.1. Toxicity

#### Ecotoxicity:

Toxic to aquatic life with long lasting effects. Do not empty into drains / surface water / ground water.

| Hazardous components<br>CAS-No.                                      | Value<br>type | Value      | Acute<br>Toxicity<br>Study | Exposure<br>time | Species                      | Method   |
|--|---------------|------------|----------------------------|------------------|------------------------------|--|
| Epoxy resin (number average<br>molecular weight ≤ 700)<br>25068-38-6 | LC50          | 1,75 mg/l  | Fish                       | 96 h             | Oncorhynchus mykiss          | OECD Guideline<br>203 (Fish, Acute<br>Toxicity Test)                   |
| Epoxy resin (number average<br>molecular weight ≤ 700)<br>25068-38-6 | EC50          | 1,7 mg/l   | Daphnia                    | 48 h             | Daphnia magna                | OECD Guideline<br>202 (Daphnia sp.<br>Acute<br>Immobilisation<br>Test) |
| Epoxy resin (number average<br>molecular weight ≤ 700)<br>25068-38-6 | EC50          | > 11 mg/l  | Algae                      | 72 h             | Scenedesmus capricornutum    | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
|  | NOEC          | 4,2 mg/l   | Algae                      | 72 h             | Scenedesmus capricornutum    | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
| Epoxy resin (number average<br>molecular weight ≤ 700)<br>25068-38-6 | IC50          | > 100 mg/l | Bacteria                   | 3 h              | activated sludge, industrial | other guideline:   |
| Epoxy resin (number average<br>molecular weight ≤ 700)<br>25068-38-6 | NOEC          | 0,3 mg/l   | chronic<br>Daphnia         | 21 d             | Daphnia magna                | OECD 211<br>(Daphnia magna,<br>Reproduction Test)                      |
| RP Bisphenol F-<br>epichlorohydrin resin,<br>MW<=700<br>28064-14-4   | EC50          | 3,5 mg/l   | Daphnia                    | 48 h             | Daphnia magna                | OECD Guideline<br>202 (Daphnia sp.<br>Acute<br>Immobilisation<br>Test) |

#### 12.2. Persistence and degradability

#### Persistence and Biodegradability:

No data available for the product.

| Hazardous components | Result | Route of    | Degradability | Method |
|----------------------|--------|-------------|---------------|--------|
| CAS-No.              |        | application |               |        |

| Epoxy resin (number average<br>molecular weight ≤ 700)<br>25068-38-6 | aerobic | 5 %       | OECD Guideline 301 F (Ready<br>Biodegradability: Manometric<br>Respirometry Test) |
|--|---------|-----------|---|
| RP Bisphenol F-<br>epichlorohydrin resin,<br>MW<=700<br>28064-14-4   | aerobic | 10 - 16 % | OECD Guideline 301 B (Ready<br>Biodegradability: CO2 Evolution<br>Test)           |

#### 12.3. Bioaccumulative potential / 12.4. Mobility in soil

#### Mobility:

Cured adhesives are immobile.

#### Bioaccumulative potential:

No data available for the product.

| Hazardous components<br>CAS-No.                                      | LogPow | Bioconcentration<br>factor (BCF) | Exposure<br>time | Species | Temperature | Method                                   |
|--|--------|----------------------------------|------------------|---------|-------------|--|
| Epoxy resin (number average<br>molecular weight ≤ 700)<br>25068-38-6 | 3,242  |                                  |                  |         | 25 °C       | EU Method A.8 (Partition<br>Coefficient) |

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

| Hazardous components                         | PBT/vPvB   |
|--|--|
| CAS-No.                                      |  |
| Epoxy resin (number average molecular weight | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| ≤ 700)                                       | Bioaccumulative (vPvB) criteria.   |
| 25068-38-6                                   |  |
| RP Bisphenol F-epichlorohydrin resin,        | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| MW<=700                                      | Bioaccumulative (vPvB) criteria.   |
| 28064-14-4                                   |  |

#### 12.6. Other adverse effects

No data available.

#### **SECTION 13: Disposal considerations**

#### **13.1.** Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Collection and delivery to recycling enterprise or other registered elimination institution.

#### 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

| IMDG 3082 | ADR<br>RID<br>ADN | 3082<br>3082<br>3082 |
|-----------|-------------------|----------------------|
| IATA 3082 |                   | 3082<br>3082         |

#### 14.2. UN proper shipping name

| ADR  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.                             |
|------|---|
|      | (Bisphenol-A Epichlorhydrin resin)  |
| RID  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.                             |
|      | (Bisphenol-A Epichlorhydrin resin)  |
| ADN  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.                             |
|      | (Bisphenol-A Epichlorhydrin resin)  |
| IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.                             |
|      | (Bisphenol-A Epichlorhydrin resin)  |
| IATA | Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorhydrin |
|      | resin)  |

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

| ADR  | 9 |
|------|---|
| RID  | 9 |
| ADN  | 9 |
| IMDG | 9 |
| IATA | 9 |

#### 14.4. Packing group

| ADR  | III |
|------|-----|
| RID  | III |
| ADN  | III |
| IMDG | III |
| IATA | III |

#### 14.5. Environmental hazards

| ADR  | not applicable   |
|------|------------------|
| RID  | not applicable   |
| ADN  | not applicable   |
| IMDG | Marine pollutant |
| IATA | not applicable   |
|      |                  |

#### 14.6. Special precautions for user

| ADR  | not applicable  |
|------|-----------------|
|      | Tunnelcode: (E) |
| RID  | not applicable  |
| ADN  | not applicable  |
| IMDG | not applicable  |
| IATA | not applicable  |
|      |                 |

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), 197 (IATA), 969 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

#### 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 (2010/75/EC) < 3,00 %

#### **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:

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.

#### 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.