



Safety Data Sheet according to (EC) No 1907/2006 as amended

Page 1 of 20

LOCTITE ECCOBOND LCM 1000AF

SDS No. : 658280
V001.0

Revision: 29.06.2020
printing date: 09.07.2020
Replaces version from: -

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

1.1. Product identifier

LOCTITE ECCOBOND LCM 1000AF

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 sensitizer | Category 1 |
| H317 May cause an allergic skin reaction. | |
| Germ cell mutagenicity | Category 2 |
| H341 Suspected of causing genetic defects. | |
| 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:



Contains

Triglycidyl-p-aminophenol

Polyglycidyl ester
Bisphenol A Diglycidyl Ether
2,2'-(Phenylene)bis[oxirane]

1,6-Naphthalenediol diglycidyl ether
2,2'-[[2-(oxiranylmethoxy)-1,3-phenylene]bis(methylene)]bisoxirane

1H-Imidazole, 2-ethyl-4-methyl-

| | |
|---------------------------------|--|
| Signal word: | Warning |
| Hazard statement: | H317 May cause an allergic skin reaction. H341 Suspected of causing genetic defects. H412 Harmful to aquatic life with long lasting effects. |
| Precautionary statement: | P273 Avoid release to the environment. |
| Prevention | P280 Wear protective gloves/protective clothing. |
| Precautionary statement: | P333+P313 If skin irritation or rash occurs: Get medical advice/attention. |
| Response | |

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

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

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|---|-------------------------------|------------|---|
| Triglycidyl-p-aminophenol 5026-74-4 | 225-716-2 01-2119954405-36 | 1- < 5 % | Acute Tox. 4; Oral H302 Skin Sens. 1B H317 Muta. 2 H341 STOT RE 2; Oral H373 Aquatic Chronic 2 H411 |
| Polyglycidyl ester 68475-94-5 | 500-215-4 | 1- < 5 % | Aquatic Chronic 4 H413 Skin Sens. 1 H317 STOT SE 3 H335 Eye Irrit. 2 H319 Skin Irrit. 2 H315 |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | | 1- < 5 % | Aquatic Chronic 2 H411 Skin Irrit. 2 H315 Skin Sens. 1 H317 |
| Bisphenol A Diglycidyl Ether 1675-54-3 | 216-823-5 01-2119456619-26 | 1- < 5 % | Eye Irrit. 2 H319 Skin Irrit. 2 H315 Skin Sens. 1 H317 Aquatic Chronic 2 H411 |
| 1,2-Ethanediamine, polymer with aziridine, N-[3-[(2-ethylhexyl)oxy]-3-oxopropyl] derivs., compds. with polyethylene-polypr 398475-96-2 | | 1- < 5 % | Eye Irrit. 2 H319 Aquatic Chronic 2 H411 |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | 429-960-2 | 0,1- < 1 % | Muta. 2 H341 Acute Tox. 4; Dermal H312 Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 3 H412 |
| 2,2'-[[2-(oxiranylmethoxy)-1,3- phenylene]bis(methylene)]bisoxirane 13561-08-5 | 236-951-5 | 0,1- < 1 % | Skin Irrit. 2; Dermal H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Muta. 2 H341 |
| diethylmethylbenzenediamine 68479-98-1 | 270-877-4 01-2119486805-25 | 0,1- < 1 % | Acute Tox. 4; Oral H302 STOT RE 2 H373 Eye Irrit. 2 H319 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 Acute Tox. 4; Dermal H312 |
| 1H-Imidazole, 2-ethyl-4-methyl- 931-36-2 | 213-234-5 01-2119980935-21 | 0,1- < 1 % | Acute Tox. 4; Oral H302 |

| | | | |
|--|--|--|--|
| | | | Eye Dam. 1 H318 Skin Irrit. 2 H315 Skin Sens. 1B H317 |
|--|--|--|--|

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. If symptoms persist, seek medical advice.

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.

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 (CO₂) and nitrogen oxides (NO_x) 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.

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.

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 ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|--|-----|-------------------|------------------------------|--|-----------------|
| Silica, vitreous 60676-86-0 [SILICA, FUSED, RESPIRABLE DUST] | | 0,08 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, INHALABLE DUST] | | 6 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, RESPIRABLE DUST] | | 2,4 | Time Weighted Average (TWA): | | EH40 WEL |

Occupational Exposure Limits

Valid for
Ireland

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|------------------------------|--|-----------------|
| Silica, vitreous 60676-86-0 [SILICA, FUSED, RESPIRABLE DUST] | | 0,08 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, TOTAL INHALABLE DUST] | | 6 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide 7631-86-9 [SILICA, AMORPHOUS, RESPIRABLE DUST] | | 2,4 | Time Weighted Average (TWA): | | IR_OEL |

Predicted No-Effect Concentration (PNEC):

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|--|------------------------------|-----------------|-------------|-----|--------------|--------|----------------------|
| | | | mg/l | ppm | mg/kg | others | |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | aqua (freshwater) | | 0,008 mg/l | | | | |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | aqua (marine water) | | 0,001 mg/l | | | | |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | sediment (freshwater) | | | | 0,101 mg/kg | | |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | sediment (marine water) | | | | 0,01 mg/kg | | |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | Air | | | | | | no hazard identified |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | Soil | | | | 0,015 mg/kg | | |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | aqua (intermittent releases) | | 0,042 mg/l | | | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | aqua (freshwater) | | 0,006 mg/l | | | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | freshwater - intermittent | | 0,018 mg/l | | | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | aqua (marine water) | | 0,001 mg/l | | | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | marine water - intermittent | | 0,002 mg/l | | | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | sediment (freshwater) | | | | 0,341 mg/kg | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | sediment (marine water) | | | | 0,034 mg/kg | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | Soil | | | | 0,065 mg/kg | | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | oral | | | | 11 mg/kg | | |
| Diethylmethylbenzenediamine 68479-98-1 | aqua (freshwater) | | 0,001 mg/l | | | | |
| Diethylmethylbenzenediamine 68479-98-1 | sediment (freshwater) | | | | 0,029 mg/kg | | |
| Diethylmethylbenzenediamine 68479-98-1 | aqua (marine water) | | 0,0001 mg/l | | | | |
| Diethylmethylbenzenediamine 68479-98-1 | sediment (marine water) | | | | 0,0029 mg/kg | | |
| Diethylmethylbenzenediamine 68479-98-1 | Soil | | | | 0,0056 mg/kg | | |
| Diethylmethylbenzenediamine 68479-98-1 | sewage treatment plant (STP) | | 17 mg/l | | | | |
| Diethylmethylbenzenediamine 68479-98-1 | aqua (intermittent releases) | | 0,005 mg/l | | | | |
| Diethylmethylbenzenediamine 68479-98-1 | oral | | | | 2 mg/kg | | |
| 2-Ethyl-4-methylimidazole | aqua | | 0,0681 | | | | |

| | | | | | | | |
|---------------------------------------|------------------------------------|--|-----------------|--|------------|--|--|
| 931-36-2 | (freshwater) | | mg/l | | | | |
| 2-Ethyl-4-methylimidazole 931-36-2 | aqua (marine water) | | 0,00681 mg/l | | | | |
| 2-Ethyl-4-methylimidazole 931-36-2 | aqua (intermittent releases) | | 0,681 mg/l | | | | |
| 2-Ethyl-4-methylimidazole 931-36-2 | sewage treatment plant (STP) | | 65 mg/l | | | | |
| 2-Ethyl-4-methylimidazole 931-36-2 | sediment (freshwater) | | | | 34,9 mg/kg | | |
| 2-Ethyl-4-methylimidazole 931-36-2 | sediment (marine water) | | | | 3,49 mg/kg | | |
| 2-Ethyl-4-methylimidazole 931-36-2 | Soil | | | | 6,91 mg/kg | | |

Derived No-Effect Level (DNEL):

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|--|--------------------|-------------------|---------------------------------------|---------------|--------------|----------------------|
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | Workers | inhalation | Long term exposure - systemic effects | | 1,752 mg/m3 | no hazard identified |
| p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline 5026-74-4 | Workers | dermal | Long term exposure - systemic effects | | 0,5 mg/kg | no hazard identified |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | Workers | inhalation | Long term exposure - systemic effects | | 4,93 mg/m3 | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | Workers | dermal | Long term exposure - systemic effects | | 0,75 mg/kg | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | General population | inhalation | Long term exposure - systemic effects | | 0,87 mg/m3 | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | General population | dermal | Long term exposure - systemic effects | | 0,0893 mg/kg | |
| 2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 | General population | oral | Long term exposure - systemic effects | | 0,5 mg/kg | |
| Diethylmethylbenzenediamine 68479-98-1 | Workers | inhalation | Long term exposure - systemic effects | | 0,13 mg/m3 | |
| Diethylmethylbenzenediamine 68479-98-1 | Workers | dermal | Long term exposure - systemic effects | | 1 mg/kg | |
| Diethylmethylbenzenediamine 68479-98-1 | General population | oral | Long term exposure - systemic effects | | 0,1 mg/kg | |
| Diethylmethylbenzenediamine 68479-98-1 | General population | dermal | Long term exposure - systemic effects | | 1 mg/kg | |
| Diethylmethylbenzenediamine 68479-98-1 | General population | inhalation | Long term exposure - systemic effects | | 0,1 mg/m3 | |
| 2-Ethyl-4-methylimidazole 931-36-2 | Workers | inhalation | Long term exposure - systemic effects | | 2,8 mg/m3 | |
| 2-Ethyl-4-methylimidazole 931-36-2 | Workers | dermal | Long term exposure - local effects | | 0,289 mg/cm2 | |
| 2-Ethyl-4-methylimidazole 931-36-2 | Workers | dermal | Long term exposure - systemic effects | | 1,6 mg/kg | |
| 2-Ethyl-4-methylimidazole 931-36-2 | General population | inhalation | Long term exposure - systemic effects | | 0,7 mg/m3 | |
| 2-Ethyl-4-methylimidazole 931-36-2 | General population | dermal | Long term exposure - systemic effects | | 0,8 mg/kg | |
| 2-Ethyl-4-methylimidazole 931-36-2 | General population | dermal | Long term exposure - local effects | | 0,289 mg/cm2 | |
| 2-Ethyl-4-methylimidazole 931-36-2 | General population | oral | Long term exposure - systemic effects | | 0,4 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:

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 | liquid liquid, or, paste black |
| Odor | mild |
| 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 | No data available / Not applicable |
| Flash point | > 93,3 °C (> 199,94 °F) |
| Evaporation rate | No data available / Not applicable |
| Flammability | No data available / Not applicable |
| Explosive limits | No data available / Not applicable |
| Vapour pressure | No data available / Not applicable |
| Relative vapour density: | No data available / Not applicable |
| Density (ρ) | 1,93 g/cm ³ |
| Bulk density | No data available / Not applicable |
| Solubility | No data available / Not applicable |
| Solubility (qualitative) | No data available / Not applicable |
| 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 (η) | 1.500.000 mPa.s |
| Viscosity (kinematic) | No data available / Not applicable |

Explosive properties
Oxidising properties

No data available / Not applicable
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 acids.
Reacts 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

Acute oral toxicity:

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

| Hazardous substances CAS-No. | Value type | Value | Species | Method |
|---|-------------------------------|---------------|---------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | LD50 | 1.037 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| Polyglycidyl ester 68475-94-5 | LD50 | 2.020 mg/kg | rat | not specified |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 420 (Acute Oral Toxicity) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | Acute toxicity estimate (ATE) | 2.500 mg/kg | | Expert judgement |
| Bisphenol A Diglycidyl Ether 1675-54-3 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 420 (Acute Oral Toxicity) |
| 1,2-Ethanediamine, polymer with aziridine, N-[3-[(2-ethylhexyl)oxy]-3-oxopropyl] derivs., compds. with polyethylene-polypr 398475-96-2 | LD50 | > 5.000 mg/kg | rat | not specified |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | LD50 | > 2.000 mg/kg | rat | EPA OTS 798.1175 (Acute Oral Toxicity) |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | Acute toxicity estimate (ATE) | 2.500 mg/kg | | Expert judgement |
| diethylmethylbenzenedia mine 68479-98-1 | LD50 | 738 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| 1H-Imidazole, 2-ethyl-4-methyl- 931-36-2 | LD50 | 622 mg/kg | rat | not specified |

Acute dermal toxicity:

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

| Hazardous substances CAS-No. | Value type | Value | Species | Method |
|--|-------------------------------|-------------------------|---------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | LD0 | > 4.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| Polyglycidyl ester 68475-94-5 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | Acute toxicity estimate (ATE) | 2.500 mg/kg | | Expert judgement |
| Bisphenol A Diglycidyl Ether 1675-54-3 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | LD50 | > 1.000 - < 2.000 mg/kg | rat | EPA OTS 798.1100 (Acute Dermal Toxicity) |

Acute inhalative toxicity:

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 CAS-No. | Result | Exposure time | Species | Method |
|---|----------------|------------------|--|---|
| Triglycidyl-p-aminophenol 5026-74-4 | not irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | irritating | 15 min | Human, EpiSkin™ (SM), Reconstructed Human Epidermis (RHE) | EU Method B.46 (In vitro skin irrit.: reconstructed human epidermis model test) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | not corrosive | 240 min | Human, EpiSkin™ (SM), Reconstructed Human Epidermis (RHE) | OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method) |
| 1,2-Ethanediamine, polymer with aziridine, N-[3-[(2-ethylhexyl)oxy]- 3-oxopropyl] derivs., compds. with polyethylene-polypr 398475-96-2 | not irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | irritating | | rabbit | EPA OTS 798.4470 (Acute Dermal Irritation) |
| diethylmethylbenzenedia mine 68479-98-1 | not irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 1H-Imidazole, 2-ethyl-4- methyl- 931-36-2 | not irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

Serious eye damage/irritation:

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

| Hazardous substances CAS-No. | Result | Exposure time | Species | Method |
|---|------------------------|------------------|---------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | slightly irritating | 30 s | rabbit | EPA OPP 81-4 (Acute Eye Irritation) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | slightly irritating | | rabbit | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 1,2-Ethanediamine, polymer with aziridine, N-[3-[(2-ethylhexyl)oxy]- 3-oxopropyl] derivs., compds. with polyethylene-polypr 398475-96-2 | irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | irritating | | rabbit | EPA OTS 798.4500 (Acute Eye Irritation) |
| 1H-Imidazole, 2-ethyl-4- methyl- 931-36-2 | highly 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 CAS-No. | Result | Test type | Species | Method |
|--|-------------|------------------------------------|------------|---|
| Triglycidyl-p-aminophenol 5026-74-4 | sensitising | Maurer optimisation test | guinea pig | not specified |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | sensitising | Buehler test | guinea pig | EPA OTS 798.4100 (Skin Sensitisation) |

Germ cell mutagenicity:

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

| Hazardous substances CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|--|----------|---|---|---------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | positive | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Triglycidyl-p-aminophenol 5026-74-4 | positive | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | negative | in vitro mammalian chromosome aberration test | with | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| 1,6-Naphthalenediol diglycidyl ether 27610-48-6 | positive | in vitro mammalian chromosome aberration test | without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |

Carcinogenicity

No data available.

Reproductive toxicity:

No data available.

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 CAS-No. | Result / Value | Route of application | Exposure time / Frequency of treatment | Species | Method |
|--|------------------|----------------------|---|---------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | NOAEL 50 mg/kg | oral: gavage | 28 d daily | rat | OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |
| diethylmethylbenzenedia mine 68479-98-1 | NOAEL >= 8 mg/kg | oral: feed | 90 days Daily for 90 days | rat | EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study 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 CAS-No. | Value type | Value | Exposure time | Species | Method |
|--|---------------|------------|---------------|---------------------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | LC50 | 4,2 mg/l | 96 h | Cyprinus carpio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Polyglycidyl ester 68475-94-5 | LL50 | | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | LC50 | 2,4 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | LC50 | 3,1 mg/l | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 1,2-Ethanediamine, polymer with aziridine, N-[3-[(2-ethylhexyl)oxy]-3-oxopropyl] derivs., compds. with polyethylene-polypr 398475-96-2 | LC50 | 8 mg/l | 96 h | not specified | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| diethylmethylbenzenediamine 68479-98-1 | LC50 | > 106 mg/l | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 1H-Imidazole, 2-ethyl-4- methyl- 931-36-2 | LC50 | 68,1 mg/l | 96 h | Leuciscus idus | DIN 38412-15 |

Toxicity (Daphnia):

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

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|--|---------------|----------|---------------|---------------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | EC50 | 18 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Polyglycidyl ester 68475-94-5 | EL50 | | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | EC50 | 1,2 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | EC50 | 1,3 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| diethylmethylbenzenediamine 68479-98-1 | EC50 | 0,5 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute 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 CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|----------|---------------|---------------|---|
| Triglycidyl-p-aminophenol 5026-74-4 | NOEC | 4,8 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | NOEC | 0,3 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |

Toxicity (Algae):

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

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|--|---------------|----------|---------------|---------------------------------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | EC50 | 13 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Triglycidyl-p-aminophenol 5026-74-4 | NOEC | 4,2 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Polyglycidyl ester 68475-94-5 | EL50 | | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Polyglycidyl ester 68475-94-5 | NOELR | | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | EC50 | | 72 h | Scenedesmus capricornutum | other guideline: |
| Bisphenol A Diglycidyl Ether 1675-54-3 | NOEC | 4,2 mg/l | 72 h | Scenedesmus capricornutum | other guideline: |
| 1,2-Ethanediamine, polymer with aziridine, N-[3-[(2- ethylhexyl)oxy]-3-oxopropyl] derivs., compds. with polyethylene-polypr 398475-96-2 | EC50 | > 1 mg/l | 72 h | not specified | OECD Guideline 201 (Alga, 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 CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|------------|---------------|--------------------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | EC10 | > 10 mg/l | 16 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm- Test) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | EC50 | > 100 mg/l | 3 h | activated sludge | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| diethylmethylbenzenediamine 68479-98-1 | EC10 | 170 mg/l | 24 h | | not specified |

12.2. Persistence and degradability

| Hazardous substances CAS-No. | Result | Test type | Degradability | Exposure time | Method |
|--|---------------------------------|---------------|---------------|------------------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | not readily biodegradable. | aerobic | 0 - 10 % | 29 day | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| Polyglycidyl ester 68475-94-5 | not readily biodegradable. | aerobic | 28 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | not readily biodegradable. | aerobic | 16 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | not inherently biodegradable | not specified | 12 % | 28 d | OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | not readily biodegradable. | aerobic | 5 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| 1,2-Ethanediamine, polymer with aziridine, N-[3-[(2- ethylhexyl)oxy]-3-oxopropyl] derivs., compds. with polyethylene-polypr 398475-96-2 | not readily biodegradable. | aerobic | > 0 - < 60 % | 28 d | OECD 301 A - F |
| diethylmethylbenzenediamine 68479-98-1 | | aerobic | 0 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| 1H-Imidazole, 2-ethyl-4- methyl- 931-36-2 | readily biodegradable | aerobic | 86 % | 28 d | OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test) |

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

| Hazardous substances CAS-No. | LogPow | Temperature | Method |
|--|---------------|-------------|--|
| Triglycidyl-p-aminophenol 5026-74-4 | 0,87 | 25 °C | QSAR (Quantitative Structure Activity Relationship) |
| Polyglycidyl ester 68475-94-5 | > 6,5 | 20 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| 2,2'-(Phenylene)bis[oxirane] 30424-08-9 | 1,36 - 2,68 | | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Bisphenol A Diglycidyl Ether 1675-54-3 | > 2,64 - 3,78 | 25 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |

12.5. Results of PBT and vPvB assessment

| Hazardous substances CAS-No. | PBT / vPvB |
|---|---|
| Triglycidyl-p-aminophenol 5026-74-4 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Bisphenol A Diglycidyl Ether 1675-54-3 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| 1,2-Ethanediamine, polymer with aziridine, N-[3-[(2-ethylhexyl)oxy]-3-oxopropyl] derivs., compds. with polyethylene-polypr 398475-96-2 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| diethylmethylbenzenediamine 68479-98-1 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| 1H-Imidazole, 2-ethyl-4-methyl- 931-36-2 | 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.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.

Further information:

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel's Product Safety and Regulatory Affairs Department (ua-productsafety.de@henkel.com) prior to export to other territories than the European Union.

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.

Dear Customer,

Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).

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.