

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 1 of 18

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

1.1. Product identifier

ARC 988(E) Parl A

UFI: T0HC-43PG-3TAE-4A9N

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

Use of the substance/mixture

ARC Polymer Composite. Repair damage caused by impact, abrasion or erosion and chemical attack.

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

| | | |
|--------------------------|-------------------------------|-------------------------------|
| Company name: | Chesterton International GmbH | |
| Street: | Am Lenzenfleck 23 | |
| Place: | D-85737 Ismaning GERMANY | |
| Telephone: | +49 89 99 65 46 - 0 | Telefax: +49 89 99 65 46 - 50 |
| e-mail: | eu-sds@chesterton.com | |
| e-mail (Contact person): | eu-sds@chesterton.com | |
| Internet: | www.chesterton.com | |
| Responsible Department: | eu-sds@chesterton.com | |

1.4. Emergency telephone

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin Irrit. 2; H315
Eye Irrit. 2; H319
Skin Sens. 1; H317
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Epoxy phenol novolac resin
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)
1,6-bis(2,3-epoxypropoxy)hexane
Phenol, styrenated

Signal word: Warning

Safety Data Sheet

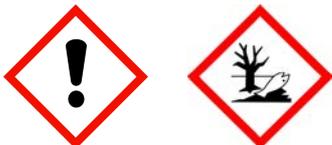
according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 2 of 18

Pictograms:



Hazard statements

| | |
|------|--|
| 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. |

Precautionary statements

| | |
|-----------|---|
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P391 | Collect spillage. |
| P501 | Dispose of contents/container to an appropriate recycling or disposal facility. |

Special labelling of certain mixtures

| | |
|--------|--|
| EUH212 | Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. |
|--------|--|

2.3. Other hazards

The safety and health hazards are detailed separately for Part A and Part B. The final cured material is considered nonhazardous. Upon machining, refer to the precautions in the safety data sheets for Part A and Part B.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 3 of 18

Hazardous components

| CAS No | Chemical name | | | Quantity |
|------------|--|--------------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 9003-36-5 | Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | | | 40 - < 45 % |
| | 500-006-8 | | 01-2119454392-40 | |
| | Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411 | | | |
| 28064-14-4 | Epoxy phenol novolac resin | | | 35 - < 40 % |
| | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411 | | | |
| 68609-97-2 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | | | 10 - < 15 % |
| | 271-846-8 | 603-103-00-4 | 01-2119485289-22 | |
| | Skin Irrit. 2, Skin Sens. 1; H315 H317 | | | |
| 25068-38-6 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | | | 5 - < 10 % |
| | 500-033-5 | 603-074-00-8 | 01-2119456619-26 | |
| | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411 | | | |
| 13463-67-7 | titanium dioxide | | | 1 - < 5 % |
| | 236-675-5 | 022-006-00-2 | 01-2119489379-17 | |
| | Carc. 2; H351 | | | |
| 16096-31-4 | 1,6-bis(2,3-epoxypropoxy)hexane | | | < 1 % |
| | 240-260-4 | | 01-2119463471-41 | |
| | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 3; H315 H319 H317 H412 | | | |
| 61788-44-1 | Phenol, styrenated | | | < 0.1 % |
| | 262-975-0 | | 01-2119980970-27 | |
| | Skin Irrit. 2, Skin Sens. 1A, Aquatic Chronic 2; H315 H317 H411 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|------------|-----------|---|-------------|
| | | Specific Conc. Limits, M-factors and ATE | |
| 9003-36-5 | 500-006-8 | Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 40 - < 45 % |
| | | dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg | |
| 68609-97-2 | 271-846-8 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | 10 - < 15 % |
| | | oral: LD50 = > 2000 mg/kg | |
| 25068-38-6 | 500-033-5 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | 5 - < 10 % |
| | | dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 | |
| 13463-67-7 | 236-675-5 | titanium dioxide | 1 - < 5 % |
| | | oral: LD50 = > 2000 mg/kg | |
| 61788-44-1 | 262-975-0 | Phenol, styrenated | < 0.1 % |
| | | dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg | |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 4 of 18

Further Information

Titanium dioxide (Cas 13463-67-7) is only present in the color gray.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Seek medical advice immediately.
Do not wash with: Solvents/Thinner

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

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

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

Processing vapours can irritate the respiratory tracts, skin and eyes.
Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

- alcohol resistant foam
- Water spray jet
- Carbon dioxide (CO₂)
- Dry extinguishing powder

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated:

- Carbon monoxide
- Carbon dioxide
- Nitrogen oxides (NO_x)

5.3. Advice for firefighters

Special protective equipment for firefighters Protective clothing. In case of fire: Wear self-contained breathing apparatus.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 5 of 18

Co-ordinate fire-fighting measures to the fire surroundings.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

- Provide adequate ventilation.
- Remove persons to safety.
- Safe handling: see section 7
- Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Adverse environmental effects

6.3. Methods and material for containment and cleaning up

For containment

Take up mechanically, placing in appropriate containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Avoid contact with skin, eyes and clothes.
- Take off contaminated clothing and wash it before reuse.
- Contaminated work clothing should not be allowed out of the workplace.
- When using do not eat, drink or smoke.
- Personal protection equipment: see section 8

Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary.

Further information on handling

Wash hands before breaks and after work. Used working clothes should not be worn outside the work area. Street clothing should be stored separately from work clothing.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 6 of 18

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Keep away from:

- Frost
- Heat
- Humidity

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|------------|-----------------------------------|-----|-------------------|---------------------|-----------|--------|
| 13463-67-7 | Titanium dioxide, respirable dust | - | 4 | | TWA (8 h) | |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 7 of 18

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|--|----------------|----------|---------------------------|
| 9003-36-5 | Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | | | |
| Worker DNEL, long-term | | inhalation | systemic | 29,39 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 104,15 mg/kg bw/day |
| Worker DNEL, acute | | dermal | local | 0,0083 mg/cm ² |
| Consumer DNEL, long-term | | inhalation | systemic | 8,7 mg/m ³ |
| Consumer DNEL, long-term | | dermal | systemic | 62,5 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 6,25 mg/kg bw/day |
| 68609-97-2 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | | | |
| Worker DNEL, long-term | | inhalation | systemic | 3,6 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 1 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 0,87 mg/m ³ |
| Consumer DNEL, long-term | | dermal | systemic | 0,5 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 0,5 mg/kg bw/day |
| 25068-38-6 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | | | |
| Worker DNEL, long-term | | inhalation | systemic | 12,25 mg/m ³ |
| Worker DNEL, acute | | inhalation | systemic | 12,25 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 8,33 mg/kg bw/day |
| Worker DNEL, acute | | dermal | systemic | 8,33 mg/kg bw/day |
| Consumer DNEL, long-term | | dermal | systemic | 3,571 mg/kg bw/day |
| Consumer DNEL, acute | | dermal | systemic | 3,571 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 0,75 mg/kg bw/day |
| Consumer DNEL, acute | | oral | systemic | 0,75 mg/kg bw/day |
| 13463-67-7 | titanium dioxide | | | |
| Worker DNEL, long-term | | inhalation | local | 1,25 mg/m ³ |
| Consumer DNEL, long-term | | oral | systemic | 700 mg/kg bw/day |
| 61788-44-1 | Phenol, styrenated | | | |
| Worker DNEL, long-term | | inhalation | systemic | 7,4 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 2,1 mg/kg bw/day |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 8 of 18

| | | | |
|--------------------------|------------|----------|------------------------|
| Consumer DNEL, long-term | inhalation | systemic | 1,31 mg/m ³ |
| Consumer DNEL, long-term | dermal | systemic | 0,75 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 0,75 mg/kg bw/day |

PNEC values

| CAS No | Substance | Value |
|------------|--|--------------|
| 9003-36-5 | Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | |
| | Freshwater | 0,003 mg/l |
| | Marine water | 0,00 mg/l |
| | Freshwater sediment | 0,294 mg/kg |
| | Marine sediment | 0,029 mg/kg |
| | Soil | 0,237 mg/kg |
| 68609-97-2 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | |
| | Freshwater | 0,106 mg/l |
| | Freshwater (intermittent releases) | 0,072 mg/l |
| | Marine water | 0,011 mg/l |
| | Freshwater sediment | 307,16 mg/kg |
| | Marine sediment | 30,72 mg/kg |
| | Micro-organisms in sewage treatment plants (STP) | 10 mg/l |
| | Soil | 1,234 mg/kg |
| 25068-38-6 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | |
| | Freshwater | 0,006 mg/l |
| | Marine water | 0,001 mg/l |
| | Freshwater sediment | 0,996 mg/kg |
| | Marine sediment | 0,1 mg/kg |
| | Secondary poisoning | 11 mg/kg |
| | Soil | 0,196 mg/kg |
| 61788-44-1 | Phenol, styrenated | |
| | Freshwater | 0,004 mg/l |
| | Freshwater (intermittent releases) | 0,046 mg/l |
| | Marine water | 0,0004 mg/l |
| | Freshwater sediment | 0,248 mg/kg |
| | Marine sediment | 0,0248 mg/kg |
| | Micro-organisms in sewage treatment plants (STP) | 36,2 mg/l |
| | Soil | 0,0473 mg/kg |

8.2. Exposure controls

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 9 of 18

Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection:

- Eye glasses with side protection
- goggles

Hand protection

Tested protective gloves must be worn: EN ISO 374

NBR (Nitrile rubber),

Wearing time with permanent contact: Thickness of the glove material: $\geq 0,4$ mm, Breakthrough time: >480 min

Wearing time with occasional contact (splashes): Thickness of the glove material: $\geq 0,1$ mm, Breakthrough time: > 30 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

Protective clothing

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Combination filtering device A-P2

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|----------------|
| Physical state: | Paste |
| Colour: | grey; red |
| Odour: | characteristic |

Test method

Changes in the physical state

Melting point/freezing point: not applicable

Boiling point or initial boiling point and boiling range: not applicable

Flash point: > 93 °C

Flammability

Solid/liquid: No data available

Gas: No data available

Explosive properties

No information available.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 10 of 18

| | |
|--|--------------------------|
| Lower explosion limits: | not applicable |
| Upper explosion limits: | not applicable |
| Auto-ignition temperature: | No data available |
| Self-ignition temperature | |
| Solid: | No data available |
| Gas: | No data available |
| Decomposition temperature: | No data available |
| pH-Value: | not applicable |
| Viscosity / dynamic: (at 25 °C) | ~ 2500 mPa·s |
| Water solubility: | Immiscible |
| Solubility in other solvents | |
| No information available. | |
| Partition coefficient n-octanol/water: | No data available |
| Vapour pressure: | No data available |
| Density: | ~ 1,20 g/cm ³ |
| Relative vapour density: | >1 (air = 1) |

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties
No information available.

Other safety characteristics

Evaporation rate: < 1 (Ether = 1)

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

Does not decompose when used for intended uses. No known hazardous decomposition products.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Acid, Oxidising agent

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

- Strong acid
- Strong alkali
- Oxidising agent, strong

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 11 of 18

10.6. Hazardous decomposition products

- Carbon monoxide,
- aldehydes,
- Acids

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

| CAS No | Chemical name | | | | |
|------------|--|-------------------|---------|---------------------|--|
| | Exposure route | Dose | Species | Source | Method |
| 9003-36-5 | Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | | | | |
| | oral | LD50 > 5000 mg/kg | Rat | Study report (1988) | OECD Guideline 401 |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (1988) | OECD Guideline 402 |
| 68609-97-2 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | | | | |
| | oral | LD50 > 2000 mg/kg | Rat | Study report (1977) | Three groups each of four female rats re |
| 25068-38-6 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | | | | |
| | oral | LD50 > 2000 mg/kg | Rat | Study report (2007) | OECD Guideline 420 |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (2007) | OECD Guideline 402 |
| 13463-67-7 | titanium dioxide | | | | |
| | oral | LD50 > 2000 mg/kg | Rat | Study report (1996) | OECD Guideline 401 |
| 61788-44-1 | Phenol, styrenated | | | | |
| | oral | LD50 > 2000 mg/kg | Rat | Study report (2014) | OECD Guideline 423 |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (2014) | OECD Guideline 402 |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol; Epoxy phenol novolac resin; oxirane, mono[(C12-14-alkyloxy)methyl] derivs.; epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin); 1,6-bis(2,3-epoxypropoxy)hexane; Phenol, styrenated)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 12 of 18

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Other information

No data available

SECTION 12: Ecological information

12.1. Toxicity

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 13 of 18

| CAS No | Chemical name | | | | | |
|------------|--|----------------|-----------|---------|--|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 9003-36-5 | Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | | | | | |
| | Acute fish toxicity | LC50 mg/l | 2,54 | 96 h | Oncorhynchus mykiss | Study report (1998) OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l | > 1,8 | 72 h | Pseudokirchneriella subcapitata | Study report (1993) OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | 2,55 | 48 h | Daphnia magna | Study report (1998) OECD Guideline 202 |
| | Crustacea toxicity | NOEC | 0,3 mg/l | 21 d | Daphnia magna | Study report (1984) OECD Guideline 211 |
| 68609-97-2 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | | | | | |
| | Acute fish toxicity | LL50 mg/l | > 100 | 96 h | Oncorhynchus mykiss | Study report (2015) OECD Guideline 203 |
| | Crustacea toxicity | NOEC | 56 mg/l | 21 d | Daphnia magna | (2017) OECD Guideline 211 |
| 25068-38-6 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | | | | | |
| | Acute fish toxicity | LC50 | 3,6 mg/l | 96 h | Oncorhynchus mykiss | Study report (1982) OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l | > 100 | 72 h | Pseudokirchneriella subcapitata | Study report (2007) OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 | 1,7 mg/l | 48 h | Daphnia magna | Study report (1984) OECD Guideline 202 |
| | Crustacea toxicity | NOEC | 0,3 mg/l | 21 d | Daphnia magna | Study report (1984) OECD Guideline 211 |
| 13463-67-7 | titanium dioxide | | | | | |
| | Acute fish toxicity | LC50 mg/l | > 100 | 96 h | Carassius auratus | REACH Registration Dossier OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l | > 50 | 72 h | Raphidocelis subcapitata | REACH Registration Dossier OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | > 100 | 48 h | Artemia salina | REACH Registration Dossier OECD Guideline 202 |
| | Fish toxicity | NOEC mg/l | >= 80 | 6 d | Danio rerio | REACH Registration Dossier OECD TG 210 |
| | Algae toxicity | NOEC mg/l | >= 1 | 32 d | Synedra ulna, Scenedesmus quadricauda, Stigeocloni | Environ. Tox. Chem. 31, 2414-2422 (2012) In this study, the authors report the re |
| | Crustacea toxicity | NOEC | > 1 mg/l | 10 d | Chironomus riparius | REACH Registration Dossier other: OECD Guideline 219 |
| | Acute bacteria toxicity | (EC50 mg/l) | > 1000 | 3 h | activated sludge, domestic | REACH Registration Dossier OECD Guideline 209 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 14 of 18

| 61788-44-1 Phenol, styrenated | | | | | | | |
|-------------------------------|--------------------------|---------------|----------|------|--------------------|----------------------------------|---|
| | Acute fish toxicity | LC50 | 5,6 mg/l | 96 h | | REACH Registration Dossier | other: Refer below principle |
| | Acute algae toxicity | ErC50 mg/l | 20,42 | 72 h | Chlorella vulgaris | REACH Registration Dossier | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 | 4,6 mg/l | 48 h | Daphnia magna | REACH Registration Dossier | OECD Guideline 202 |
| | Fish toxicity | NOEC mg/l | 0,0618 | 63 d | Danio rerio | REACH Registration Dossier | other: OECD 234 Fish Sexual Development |
| | Crustacea toxicity | NOEC | 0,2 mg/l | 21 d | Daphnia magna | REACH Registration Dossier | other: Refer below principle |

12.2. Persistence and degradability

| CAS No | Chemical name | | | |
|------------|--|-------|----|--------|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 68609-97-2 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | | | |
| | OECD 301F | 87% | 28 | |
| 25068-38-6 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | | | |
| | OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D | 5% | 25 | |
| | Not readily biodegradable (according to OECD criteria) | | | |
| 61788-44-1 | Phenol, styrenated | | | |
| | OECD 301F | 7% | 28 | |
| | Not readily biodegradable (according to OECD criteria) | | | |

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|------------|--|---------|
| 9003-36-5 | Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 2,7 |
| 68609-97-2 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | 3,77 |
| 25068-38-6 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | >= 2,64 |
| 61788-44-1 | Phenol, styrenated | 3,03 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 15 of 18

BCF

| CAS No | Chemical name | BCF | Species | Source |
|------------|--|-----------------|-----------------|---|
| 9003-36-5 | Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 150 | | Other company data (|
| 68609-97-2 | oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | >= 160 | | REACH Registration D |
| 25068-38-6 | epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin) | 31 | | Study report (2010) |
| 13463-67-7 | titanium dioxide | > 0,47 - < 3,19 | Artemia salina | REACH Registration D |
| 61788-44-1 | Phenol, styrenated | 168 | Cyprinus carpio | http://www.safe.nite |

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|--|---|
| 14.1. UN number or ID number: | UN 3082 |
| 14.2. UN proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin) |
| 14.3. Transport hazard class(es): | 9 |
| 14.4. Packing group: | III |
| Hazard label: | 9 |
| Classification code: | M6 |
| Special Provisions: | 274 335 375 601 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| Transport category: | 3 |
| Hazard No: | 90 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 16 of 18

Tunnel restriction code: -

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9
 Classification code: M6
 Special Provisions: 274 335 375 601
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9
 Special Provisions: 274, 335, 969
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9
 Special Provisions: A97 A158 A197 A215
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y964
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 964
 IATA-max. quantity - Passenger: 450 L
 IATA-packing instructions - Cargo: 964
 IATA-max. quantity - Cargo: 450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes
 Danger releasing substance: epoxy resin

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 17 of 18

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

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

titanium dioxide

Phenol, styrenated

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3,5,6,7,8,9,10,11,14,15.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer

(Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC 988(E) Parl A

Revision date: 22.06.2022

Page 18 of 18

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

| Classification | Classification procedure |
|-------------------------|--------------------------|
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Skin Sens. 1; H317 | Calculation method |
| Aquatic Chronic 2; H411 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|--------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H351 | Suspected of causing cancer. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH212 | Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. |

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)