

SAFETY DATA SHEET



RIEGLER Repair Stick Titanium

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

1.1 Product identifier

Product name : RIEGLER Repair Stick Titanium
UFI : 62T2-D0NM-U00R-KCV7
Product code : R115.01 / ID-Nr. 114581
Color : Brown.

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

| Identified uses |
|-----------------|
| Epoxy resins |

1.3 Details of the supplier of the safety data sheet

RIEGLER & Co. KG
Schützenstr. 27, D-72574 Bad Urach
Phone : +49 (0) 7125/9497-0, Fax : +49 (0) 7125/9497-97
E-Mail : zedok@riegler.de
Internet : www.riegler.de

e-mail address of person responsible for this SDS : Abteilung eDocumentation
Phone : +49 (0) 7125/9497-0
Fax : +49 (0) 7125/9497-97
zedok@riegler.de

1.4 Emergency telephone number

Telephone number : Giftnotrufzentrale Bonn
Phone : +49(0)228-19 240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : P501 - Dispose of waste according to applicable legislation.

Supplemental label elements : Contains epoxy constituents. May produce an allergic reaction. Contains 3,6-diazaoctanethylenediamin, reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700) and 2-piperazin-1-ylethylamine. May produce an allergic reaction.

SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Type |
|---|---|-----------|---|---------|
| Talc (Mg ₃ H ₂ (SiO ₃) ₄) | REACH #: 01-2120140278-58 EC: 238-877-9 CAS: 14807-96-6 | ≥25 - ≤50 | Not classified. | [2] |
| 3,6-diazaoctanethylenediamin | REACH #: pre-registered EC: 203-950-6 CAS: 112-24-3 Index: 612-059-00-5 | <1 | Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412 | [1] [2] |
| phenol | REACH #: 01-2119471329-32 EC: 203-632-7 CAS: 108-95-2 | <1 | Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Muta. 2, H341 STOT RE 2, H373 Aquatic Chronic 1, H410 (M=1) | [1] [2] |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) | REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 Index: 603-074-00-8 | <1 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | [1] |
| 2-piperazin-1-ylethylamine | REACH #: 01-2119471486-30 EC: 205-411-0 CAS: 140-31-8 Index: 612-105-00-4 | <1 | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above. | [1] |

SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up

: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

SECTION 7: Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|---|---|
| Talc (Mg ₃ H ₂ (SiO ₃) ₄) | TRGS 900 OEL (Germany, 3/2020). TWA: 1.25 mg/m ³ 8 hours. Form: alveolar fraction PEAK: 2.5 mg/m ³ 15 minutes. Form: alveolar fraction PEAK: 20 mg/m ³ 15 minutes. Form: inhalable fraction TWA: 10 mg/m ³ 8 hours. Form: inhalable fraction |
| 3,6-diazaoctanethylenediamin | DFG MAC-values list (Germany, 8/2020). Skin sensitizer. |
| phenol | TRGS 900 OEL (Germany, 10/2020). Absorbed through skin. TWA: 8 mg/m ³ 8 hours. TWA: 2 ppm 8 hours. PEAK: 16 mg/m ³ 15 minutes. PEAK: 4 ppm 15 minutes. DFG MAC-values list (Germany, 8/2020). Absorbed through skin. |

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Type | Exposure | Value | Population | Effects | |
|----------------------------|---|-----------------------|------------------------|-------------------------|--------------------|----------|
| phenol | DNEL | Long term Oral | 0.4 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Dermal | 0.4 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Dermal | 1.23 mg/kg bw/day | Workers | Systemic | |
| | DNEL | Long term Inhalation | 1.32 mg/m ³ | General population | Systemic | |
| | DNEL | Long term Inhalation | 8 mg/m ³ | Workers | Systemic | |
| | DNEL | Short term Inhalation | 16 mg/m ³ | Workers | Local | |
| | reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) | DNEL | Short term Oral | 0.75 mg/kg bw/day | General population | Systemic |
| | | DNEL | Long term Oral | 0.75 mg/kg bw/day | General population | Systemic |
| | | DNEL | Short term Dermal | 3.571 mg/kg bw/day | General population | Systemic |
| | | DNEL | Long term Dermal | 3.571 mg/kg bw/day | General population | Systemic |
| | | DNEL | Short term Dermal | 8.33 mg/kg bw/day | Workers | Systemic |
| | | DNEL | Long term Dermal | 8.33 mg/kg bw/day | Workers | Systemic |
| | | DNEL | Short term Inhalation | 12.25 mg/m ³ | Workers | Systemic |
| | | DNEL | Long term Inhalation | 12.25 mg/m ³ | Workers | Systemic |
| 2-piperazin-1-ylethylamine | | DNEL | Long term Oral | 0.3 mg/kg bw/day | General population | Systemic |
| | | DNEL | Long term Inhalation | 0.9 mg/m ³ | General population | Systemic |
| | DNEL | Short term Oral | 1.5 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Dermal | 1.7 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Dermal | 3.3 mg/kg bw/day | Workers | Systemic | |
| | DNEL | Long term Inhalation | 3.6 mg/m ³ | Workers | Systemic | |
| | DNEL | Short term Inhalation | 5.3 mg/m ³ | General population | Systemic | |

SECTION 8: Exposure controls/personal protection

| | | | | | |
|--|------|-----------------------|--------------------------|--------------------|----------|
| | DNEL | Short term Dermal | 10 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Dermal | 20 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 21.4 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 0.003 mg/cm ² | General population | Local |
| | DNEL | Long term Dermal | 0.006 mg/cm ² | Workers | Local |
| | DNEL | Short term Dermal | 0.02 mg/cm ² | General population | Local |
| | DNEL | Short term Dermal | 0.04 mg/cm ² | Workers | Local |

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Recommended : 1 - 4 hours (breakthrough time): nitrile rubber 4 - 8 hours (breakthrough time): Viton®/butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Respiratory protection is not necessary if room is well ventilated.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

| | |
|--|---|
| Physical state | : Solid. |
| Color | : Brown. |
| Odor | : Bland. |
| Odor threshold | : Not available. |
| Melting point/freezing point | : Not available. |
| Initial boiling point and boiling range | : >35°C (>95°F) |
| Flammability (solid, gas) | : Not available. |
| Upper/lower flammability or explosive limits | : Not applicable. |
| Flash point | : Closed cup: >100°C (>212°F) |
| Auto-ignition temperature | : Not applicable. |
| Decomposition temperature | : Not available. |
| pH | : Not applicable. |
| Viscosity | : Not applicable. |
| Solubility(ies) | : Insoluble in the following materials: cold water and hot water. |
| Solubility in water | : Not available. |
| Miscible with water | : No. |
| Partition coefficient: n-octanol/water | : Not applicable. |
| Vapor pressure | : <0 kPa (<0 mm Hg) |
| Evaporation rate | : Not available. |
| Relative density | : Not available. |
| Density | : 1.9 g/cm ³ [20°C (68°F)] |
| Vapor density | : Not applicable. |
| Explosive properties | : Not available. |
| Oxidizing properties | : Not available. |
| <u>Particle characteristics</u> | |
| Median particle size | : Not available. |

9.2 Other information

| | |
|------|------------------|
| SADT | : Not available. |
| SAPT | : Not available. |

SECTION 10: Stability and reactivity

| | |
|---|--|
| 10.1 Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| 10.2 Chemical stability | : The product is stable. |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : No specific data. |
| 10.5 Incompatible materials | : No specific data. |

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SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products : Highly reactive or incompatible with the following materials: oxidizing materials and reducing materials.
Reactive or incompatible with the following materials: alkalis.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|-----------------------|---------|-----------------------|----------|
| 3,6-diazaoctanethylenediamin phenol | LD50 Dermal | Rabbit | 805 mg/kg | - |
| | LD50 Oral | Rat | 2500 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 316 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | 630 mg/kg | - |
| | LD50 Dermal | Rat | 669 mg/kg | - |
| | LD50 Oral | Rat | 317 mg/kg | - |

Conclusion/Summary : Not available.

Acute toxicity estimates

| Route | ATE value |
|---------------------|----------------|
| Oral | 13333.33 mg/kg |
| Dermal | 84000 mg/kg |
| Inhalation (vapors) | 400 mg/l |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-----------------|--------------------|-------------|
| 3,6-diazaoctanethylenediamin phenol reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) | Eyes - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 49 mg | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Severe irritant | Rabbit | - | 490 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 0.5 minutes 5 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 5 mg | - |
| | Skin - Severe irritant | Pig | - | 0.5 minutes 400 uL | - |
| | Skin - Mild irritant | Rabbit | - | 100 mg | - |
| | Skin - Severe irritant | Rabbit | - | 535 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 100 mg | - |
| Skin - Moderate irritant | Rabbit | - | 24 hours 500 uL | - | |
| Skin - Severe irritant | Rabbit | - | 24 hours 2 | - | |

SECTION 11: Toxicological information

| | | | | | |
|----------------------------|--------------------------|--------|---|-------------------------|---|
| 2-piperazin-1-ylethylamine | Eyes - Moderate irritant | Rabbit | - | mg 24 hours 20 mg | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 5 mg | - |

Conclusion/Summary : Not available.

Sensitization

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|---------------|
| phenol | Category 2 | - | - |

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

SECTION 11: Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|------------------------------|-------------------------------------|--|----------|
| 3,6-diazaoctanethylenediamin | Acute EC50 3700 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute LC50 33900 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| phenol | Acute EC50 61.1 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 36 mg/l Marine water | Algae - Hormosira banksii - Gamete | 72 hours |
| | Acute EC50 94 mg/l Fresh water | Aquatic plants - Lemna aequinoctialis | 96 hours |
| | Acute EC50 4200 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 800 µg/l Marine water | Crustaceans - Archaeomysis kokuboi - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute LC50 1.75 µg/l Fresh water | Fish - Cyprinus carpio - Larvae | 96 hours |
| | Chronic NOEC 16 µg/l Marine water | Algae - Hormosira banksii - Gamete | 72 hours |
| | Chronic NOEC 1.5 mg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Chronic NOEC 118 µg/l Fresh water | Fish - Oncorhynchus mykiss | 90 days |
| 2-piperazin-1-ylethylamine | Acute LC50 2190000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

SECTION 12: Ecological information

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|-----|-----------|
| 3,6-diazaoctanethylenediamin | -1.66 to -1.4 | - | low |
| phenol | 1.47 | 647 | high |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) | 2.64 to 3.78 | 31 | low |
| 2-piperazin-1-ylethylamine | -1.48 | - | low |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

European waste catalogue (EWC)

| Waste code | Waste designation |
|------------|--|
| 08 04 09* | waste adhesives and sealants containing organic solvents or other hazardous substances |

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

| Type of packaging | European waste catalogue (EWC) |
|-------------------|--|
| 15 01 10* | packaging containing residues of or contaminated by hazardous substances |

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | IMDG | IATA |
|---------------------------------|---------------------------|---------------------------|----------------|
| 14.1 UN number | Not available. | Not available. | Not available. |
| 14.2 UN proper shipping name | Not available. | Not available. | Not available. |
| 14.3 Transport hazard class(es) | Not available. | Not available. | Not available. |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | No. Not available. | No. Not available. | No. |

Additional information

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Ozone depleting substances (1005/2009/EU)

Not listed.

SECTION 15: Regulatory information

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

| Product/ingredient name | List name | Name on list | Classification | Notes |
|---|---------------------|--|----------------|-------|
| Talc (Mg ₃ H ₂ (SiO ₃) ₄) | DFG MAC-values list | Talc (without asbestos fibres) (respirable fraction) | K3 | - |
| phenol | DFG MAC-values list | Phenol | K3, M3 | - |

Storage class (TRGS 510) : 13

Hazardous incident ordinance

This product is not controlled under the Germany Hazardous Incident Ordinance.

Hazard class for water : 2

Technical instruction on air quality control : TA-Luft Number 5.2.1: 35-80%
TA-Luft Number 5.2.5: 0.7-3%
TA-Luft Class I - Number 5.2.5: 0.5-1%

AOX : The product contains organically bound halogens and can contribute to the AOX value in waste water.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

| | |
|--------------------------|--|
| Australia | : All components are listed or exempted. |
| Canada | : All components are listed or exempted. |
| China | : All components are listed or exempted. |
| Europe | : All components are listed or exempted. |
| Japan | : All components are listed or exempted. |
| New Zealand | : All components are listed or exempted. |
| Philippines | : All components are listed or exempted. |
| Republic of Korea | : All components are listed or exempted. |
| Taiwan | : All components are listed or exempted. |
| Turkey | : All components are listed or exempted. |
| United States | : All components are active or exempted. |
| Viet Nam | : All components are listed or exempted. |

SECTION 15: Regulatory information

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|-------------------------|--------------------|
| Aquatic Chronic 3, H412 | Calculation method |

Full text of abbreviated H statements

| | |
|------|--|
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H341 | Suspected of causing genetic defects. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| 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. |

Full text of classifications [CLP/GHS]

| | |
|-------------------|---|
| Acute Tox. 3 | ACUTE TOXICITY - Category 3 |
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 1 | AQUATIC HAZARD (LONG-TERM) - Category 1 |
| Aquatic Chronic 2 | AQUATIC HAZARD (LONG-TERM) - Category 2 |
| Aquatic Chronic 3 | AQUATIC HAZARD (LONG-TERM) - Category 3 |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 |
| Muta. 2 | GERM CELL MUTAGENICITY - Category 2 |
| Skin Corr. 1B | SKIN CORROSION/IRRITATION - Category 1B |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITIZATION - Category 1 |
| STOT RE 2 | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 |

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Notice to reader

SECTION 16: Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.