SAFETY DATA SHEET



Repair Stick Copper

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

1.1 Product identifier

| Product name | : Repair Stick Copper |
|--------------|-----------------------|
| UFI | : 3940-G08W-300X-WH3X |
| Product code | : 105300 |
| Color | : RedBrown. |

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

WEICON GmbH & Co. KG Königsberger Str. 255 48157 Münster Germany Phone: +49 251 93220 Fax: +49(0)251 / 9322 - 244 Internet: www.weicon.de e-mail address of person : msds@weicon.de responsible for this SDS

1.4 Emergency telephone number

| Telephone number | : EMERGENCY CONTACT – UK, UAE, South Africa (24h): Tel: ++44 1865 407333 (English) |
|------------------|--|
| | TRANSPORT EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel: ++44 1865 407333 (English) |

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]

Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 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.

: Warning

2.2 Label elements

Hazard pictograms



Signal word

Date of issue/Date of revision

1/16

| SECTION 2: Hazards | ic | lentification |
|---|----|---|
| Hazard statements | : | H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H410 - Very toxic to aquatic life with long lasting effects. |
| Precautionary statements | | |
| Prevention | : | P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment. P261 - Avoid breathing dust. P264 - Wash thoroughly after handling. |
| Response | : | P391 - Collect spillage. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. |
| Storage | : | Not applicable. |
| Disposal | : | ₱501 - Dispose of waste according to applicable legislation. |
| Hazardous ingredients | : | Poly[oxy(methyl-1,2-ethanediyl)], α -hydro- ω -hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700) |
| Supplemental label elements | : | Contains epoxy constituents. May produce an allergic reaction. |
| 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

| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Туре |
|---|---|-----------|---|---------|
| ······································ | REACH #: 01-2120118957-46 EC: 615-735-8 CAS: 72244-98-5 | ≥25 - ≤50 | Skin Sens. 1B, H317 Aquatic Chronic 3, H412 | [1] |
| 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 | ≤10 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | [1] |
| copper | REACH #: 01-2119480154-42 EC: 231-159-6 | ≤5 | Acute Tox. 4, H302 Aquatic Acute 1, H400 (M=10) | [1] [2] |

| | CAS: 7440-50-8 | | Aquatic Chronic 2, H411 | |
|---|--|----|---|-----|
| 2,4,6-tris(dimethylaminomethyl) phenol | REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2 Index: 603-069-00-0 | ≤3 | Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 | [1] |
| | | | See Section 16 for the full text of the H statements declared above. | |

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.

Туре

[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. |
|----------------------------|--|
| 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Skin contact | : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

4.2 Most important symptoms and effects, both acute and delayed <u>Over-exposure signs/symptoms</u>

| Date of issue/Date of revision | : 10.08.2021 | Date of previous issue | :02.06.2020 | Version : 3 | 3/16 |
|--------------------------------|--------------|------------------------|-------------|-------------|------|
|--------------------------------|--------------|------------------------|-------------|-------------|------|

| Repair Stick Copper | |
|---|---|
| SECTION 4: First aid | d measures |
| Eye contact | : Adverse symptoms may include the following: pain or irritation watering redness |
| Inhalation | : No specific data. |
| Skin contact | : Adverse symptoms may include the following: irritation redness |
| Ingestion | : No specific data. |
| 4.3 Indication of any immed | iate medical attention and special treatment needed |
| Notes to physician | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Specific treatments | : No specific treatment. |
| SECTION 5: Firefigh | ting 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 very toxic to aquatic life. 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: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds 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 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". |

Date of issue/Date of revision

SECTION 6: Accidental release measures

| 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 mater May be harmful to the environment if released in large quantities. Collect spille | rial. |
|---|--|
| Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. | |
| 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. | |
| : | environmental pollution (sewers, waterways, soil or air). Water polluting mater May be harmful to the environment if released in large quantities. Collect spills Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. |

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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. 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. |
|--|--|
| 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.

Seveso Directive - Reporting thresholds

| Danger criteria | | | | |
|-----------------|---------------------------------|-------------------------|--|--|
| | Notification and MAPP threshold | Safety report threshold | | |
| E1 | 100 tonne | 200 tonne | | |

7.3 Specific end use(s) Recommendations

| | Not available. |
|--|----------------|
| | not available. |

| Industrial sector specific | : Not available. |
|----------------------------|------------------|
| solutions | |

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

SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Exposure limit values |
|-------------------------|---|
| ¢ópper | DFG MAC-values list (Germany, 7/2019). PEAK: 0.02 mg/m ³ , 4 times per shift, 15 minutes. Form: respirable fraction TWA: 0.01 mg/m ³ 8 hours. Form: respirable fraction |

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

| | Туре | Exposure | Value | Population | Effects |
|---|------|--------------------------|------------------------|-----------------------|----------|
| 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/ m³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 12.25 mg/ m³ | Workers | Systemic |
| copper | DNEL | Short term Inhalation | 1 mg/m³ | General population | Local |
| | DNEL | Long term Inhalation | 1 mg/m³ | General population | Local |
| | DNEL | Short term Inhalation | 20 mg/m ³ | General population | Systemic |
| | DNEL | Short term Inhalation | 20 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 137 mg/kg bw/day | General population | Systemic |
| | 1 | 1 | 1 | 1 | |

| SECTION 8: Exposure controls/personal protection | | | | | | |
|--|------|-------------------|---------------------|-----------------------|----------|--|
| | | | bw/day | | | |
| | DNEL | Short term Dermal | 273 mg/kg bw/day | General population | Systemic | |
| | DNEL | Short term Dermal | 273 mg/kg bw/day | Workers | Systemic | |

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 measured | ires |
| 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. Contaminated work clothing should not be allowed out of the workplace. 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: chemical splash goggles. |
| Skin protection | |
| Hand protection | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. 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. |
| 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. |
| 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

| : Solid. |
|------------------|
| : RedBrown. |
| : Bland. |
| : Not available. |
| : Not available. |
| |

| SECTION 9: | Physical and | d chemical properties |
|-------------------|--------------|-----------------------|
| | | |

| : | >35°C (>95°F) Not available. Mot applicable. |
|---|---|
| : | |
| | Not applicable. |
| : | |
| | Closed cup: >100°C (>212°F) |
| : | Not applicable. |
| : | Not available. |
| : | Not applicable. |
| : | Not applicable. |
| : | Insoluble in the following materials: cold water and hot water. |
| : | Not available. |
| : | No. |
| : | Not applicable. |
| ÷ | ∞ 0 kPa (<0 mm Hg) |
| : | Not available. |
| : | Not available. |
| : | 2 g/cm ³ |
| : | Not applicable. |
| : | Not available. |
| : | Not available. |
| | |
| : | Not available. |
| | |
| : | Not available. |
| : | Not available. |
| | |

| | y | |
|--|---|--|
| 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. |
| 10.6 Hazardous decomposition products | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|----------------|---------|------------|----------|
| 2,4,6-tris (dimethylaminomethyl) phenol | LD50 Dermal | Rat | 1280 mg/kg | - |
| | LD50 Oral | Rat | 1673 mg/kg | - |
| Conclusion/Summary | Not available. | | | |

Conclusion/Summary Acute toxicity estimates

| Route | ATE value |
|-------|----------------|
| Oral | 13897.66 mg/kg |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|------------------------------|---------|-------|--------------------|-------------|
| Feaction product: bisphenol- A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) | Eyes - Mild irritant | Rabbit | - | 100 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 uL | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| 2,4,6-tris (dimethylaminomethyl) phenol | Eyes - Severe irritant | Rabbit | - | 24 hours 50 ug | - |
| | Skin - Mild irritant | Rat | - | 0.025 MI | - |
| | Skin - Severe irritant | Rat | - | 0.25 MI | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| Conclusion/Summary | : Not available. | | - | <u>.</u> | <u>.</u> |
| Sensitization | | | | | |
| Conclusion/Summary | : Not available. | | | | |
| <u>Mutagenicity</u> | | | | | |
| Conclusion/Summary | : Not available. | | | | |
| Carcinogenicity | | | | | |
| Conclusion/Summary | : Not available. | | | | |
| Reproductive toxicity | | | | | |
| Conclusion/Summary | : Not available. | | | | |
| <u>Teratogenicity</u> | | | | | |
| Conclusion/Summary | : Not available. | | | | |
| Specific target organ toxicit | <u>y (single exposure)</u> | | | | |
| Not available. | | | | | |
| Specific target organ toxicit | <u>y (repeated exposure)</u> | | | | |
| Not available. | | | | | |

Aspiration hazard

Not available.

Date of issue/Date of revision

SECTION 11: Toxicological information

| Information on the likely routes of exposure | : | Not available. |
|--|------|---|
| Potential acute health effects | 5 | |
| Eye contact | _ | Causes serious eye irritation. |
| Inhalation | : | No known significant effects or critical hazards. |
| Skin contact | : | Causes skin irritation. May cause an allergic skin reaction. |
| Ingestion | | No known significant effects or critical hazards. |
| Symptoms related to the phy | vsic | al, chemical and toxicological characteristics |
| Eye contact | : | Adverse symptoms may include the following: pain or irritation watering redness |
| Inhalation | : | No specific data. |
| Skin contact | : | Adverse symptoms may include the following: irritation redness |
| Ingestion | : | No specific data. |
| Delayed and immediate effect | ts | 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. |
| Potential delayed effects | : | Not available. |
| Potential chronic health eff | ect | <u>s</u> |
| Not available. | | |
| Conclusion/Summary | : | Not available. |
| General | : | Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| 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

SECTION 12: Ecological information

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|------------------------------------|--|----------|
| c opper | Acute EC50 1100 µg/l Fresh water | Aquatic plants - Lemna minor | 4 days |
| | Acute EC50 2.1 μg/l Fresh water | Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute IC50 13 μg/l Fresh water | Algae - Pseudokirchneriella subcapitata - Exponential growth phase | 72 hours |
| | Acute IC50 5.4 mg/l Marine water | Aquatic plants - Plantae - Exponential growth phase | 72 hours |
| | Acute LC50 0.072 μg/l Marine water | Crustaceans - Amphipoda - Adult | 48 hours |
| | Acute LC50 7.56 μg/l Marine water | Fish - Periophthalmus waltoni - Adult | 96 hours |
| | Chronic NOEC 2.5 µg/l Marine water | Algae - Nitzschia closterium - Exponential growth phase | 72 hours |
| | Chronic NOEC 7 mg/l Fresh water | Aquatic plants - Ceratophyllum demersum | 3 days |
| | Chronic NOEC 0.02 mg/l Fresh water | Crustaceans - Cambarus bartonii - Mature | 21 days |
| | Chronic NOEC 2 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Chronic NOEC 0.8 µg/l Fresh water | Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling) | 6 weeks |

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|---|--------------|-----|-----------|
| reaction product: bisphenol- A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) | 2.64 to 3.78 | 31 | low |
| 2,4,6-tris (dimethylaminomethyl) phenol | 0.219 | - | low |

12.4 Mobility in soil

| Soil/water partition coefficient (Koc) | : 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.

| Date of issue/Date of revision : 10.08.2021 | Date of previous issue | :02.06.2020 | Version : 3 | 11/16 |
|---|------------------------|-------------|-------------|-------|
|---|------------------------|-------------|-------------|-------|

SECTION 12: Ecological information

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 | ΙΑΤΑ |
|------------------------------------|---|--|---|
| 14.1 UN number | <mark>₩</mark> N3077 | UN3077 | UN3077 |
| 14.2 UN proper shipping name | NVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (reaction product: bisphenol-A- (epichlorhydrin); epoxy resin, copper) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (reaction product: bisphenol-A- (epichlorhydrin); epoxy resin, copper) | Environmentally hazardous substance, solid, n.o.s. (reaction product: bisphenol- A-(epichlorhydrin); epoxy resin, copper) |
| 14.3 Transport hazard class(es) | 9 | 9 | 9 |
| 14.4 Packing group | | 111 | 111 |
| 14.5 Environmental hazards | Yes. Peaction product: bisphenol-A- (epichlorhydrin); epoxy resin, copper | Yes. reaction product: bisphenol-A- (epichlorhydrin); epoxy resin, copper | Yes. |

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 - Germany

Repair Stick Copper

| SECTION 14: Transport information | | | | | |
|---|--|--|--|--|--|
| | | | | | |
| Additional information | | | | | |
| ADR/RID | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Hazard identification number 90 Limited quantity 5 kg Special provisions 274, 335, 601, 375 ADR Classification Code: M7 | | | | |
| IMDG | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Emergency schedules F-A, S-F Special provisions 274, 335, 966, 967, 969 | | | | |
| ΙΑΤΑ | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8. <u>Quantity limitation</u> Passenger and Cargo Aircraft: 400 kg. Packaging instructions: 956. Cargo Aircraft Only: 400 kg. Packaging instructions: 956. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y956. <u>Special provisions</u> A97, A158, A179, A197 | | | | |
| 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 <u>EU Regulation (EC) No. 1907/2006 (REACH)</u>

Annex XIV - List of substances subject to authorization

| <u>Annex XIV</u> | |
|---|--------------------------|
| None of the components ar | e listed. |
| Substances of very high of | concern |
| None of the components ar | e 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 | : Listed |
| Industrial emissions (integrated pollution prevention and control) - Water | : Listed |
| Ozone depleting substance | <u>es (1005/2009/EU)</u> |
| 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 controlled under the Seveso Directive.

| Danger criteria | |
|-----------------|--|
| Category | |
| E1 | |

National regulations

| Product/ingredient name | List name | Name on list | Classification | Notes |
|-------------------------|-----------|---------------------------------------|----------------|-------|
| copper | | Copper and its inorganic compounds | Listed | - |

Storage class (TRGS 510) : 13

Hazardous incident ordinance

This product is controlled under the Germany Hazardous Incident Ordinance.

Danger criteria

| Category | | Reference number |
|---|--|------------------|
| E1 | | 1.3.1 |
| Hazard class for water | : 2 | |
| Technical instruction on air quality control | TA-Luft Number 5.2.5: 26-63% TA-Luft Number 5.2.1: 20-50% TA-Luft Class III - Number 5.2.2: 1-5% | |
| 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. |
| | |

Date of issue/Date of revision

SECTION 15: Regulatory information

| Taiwan | : All components are listed or exempted. | |
|------------------------------------|--|--|
| Turkey | : Not determined. | |
| United States | : All components are active or exempted. | |
| Viet Nam | : All components are listed or exempted. | |
| 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. |
|-------------------------------|--|
| acronyms | |
| | 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 |
|-------------------------|--------------------|
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| Aquatic Acute 1, H400 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

Full text of abbreviated H statements

| H302 | Harmful if swallowed. |
|------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H400 | Very toxic to aquatic life. |
| 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. 4 Aquatic Acute 1 Aquatic Chronic 2 Aquatic Chronic 3 Eye Irrit. 2 Skin Irrit. 2 Skin Sens. 1 Skin Sens. 1B | | ACUTE TOXICITY - Category 4 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1B |
|---|--------------|--|
| Date of printing | : 10.08.2021 | |
| Date of issue/ Date of revision | : 10.08.2021 | |
| Date of previous issue | : 02.06.2020 | |
| Version | : 3 | |
| Notice to reader | | |

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 - Germany

Repair Stick Copper

SECTION 16: Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed 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.