Sicherheitsdatenblatt



| Produkt: | HM1642 |
|----------------|---------------------------------|
| Hersteller: | PERMABOND ENGINEERING ADHESIVES |
| Warengruppe: | KLEBSTOFF |
| Artikelgruppe: | ANAEROB |
| Download: | 20.04.2024 |

PERMABOND® HM1642

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Vereinigte Volksbank AG Böblingen BLZ 603 900 00 Konto 80 089 003

Posthank Stuttgart BLZ 600 100 70 Konto 146 294 70



SAFETY DATA SHEET Permabond HM1642

| SECTION 1: Identification of the substance/mixture and of the company/undertaking | | |
|--|--|--|
| 1.1. Product identifier | | |
| Product name | Permabond HM1642 | |
| 1.2. Relevant identified uses of the substance or mixture and uses advised against | | |
| Identified uses | Adhesive. Sealant. | |
| 1.3. Details of the supplier of t | he safety data sheet | |
| Supplier | Permabond Engineering Adhesives Ltd. Wessex Way Colden Common Winchester Hampshire. SO21 1WP United Kingdom Tel: +44 (0)1962 711 661 Fax: +44 (0)1962 711 662 info.europe@permabond.com | |
| 1.4. Emergency telephone nu | mber | |
| Emergency telephone | UK +44 (0)1962 711 661 USA 0800 640 7599 Asia +86 (0)21 5773 4913 | |
| SECTION 2: Hazards identific | ation | |
| 2.1. Classification of the subst Classification (EC 1272/2008) Physical hazards Health hazards Environmental hazards 2.2. Label elements Pictogram | | |
| Signal word | Warning | |
| Hazard statements | H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. | |
| Precautionary statements | P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352a IF ON SKIN: Wash with plenty of soap and water P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/ attention. | |

| Contains | 2-HYDROXYETHYL METHACRYLATE, ACRYLIC ACID |
|--|---|
| Supplementary precautionary statements | P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/container in accordance with existing Community, National and local regulations. |

2.3. Other hazards

None under normal conditions.

| SECTION 3: Composition/informat | tion on ingredients | |
|---|----------------------|--|
| 3.2. Mixtures | | |
| 2-HYDROXYETHYL METHACRY | ′LATE | 10-30% |
| CAS number: 868-77-9 | EC number: 212-782-2 | REACH registration number: 01- 2119490169-29-XXXX |
| Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 | | |
| BISPHENOL A ETHOXYLATE DI | METHACRYLATE | 1-5% |
| CAS number: 41637-38-1 | EC number: 609-946-4 | REACH registration number: 01- 2119980659-17-XXXX |
| Classification Aquatic Chronic 4 - H413 | | |
| ACRYLIC ACID | | 1-<3% |
| CAS number: 79-10-7 | EC number: 201-177-9 | REACH registration number: 01- 2119452449-31-XXXX |
| M factor (Acute) = 1 | | |
| Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 | | |
| Aquatic Acute 1 - H400 | | |

| ETHANEDIOL | | <1% |
|---|---|-------|
| CAS number: 107-21-1 | EC number: 203-473-3 REACH registration number: 0 2119456816-28-XXXX | 1- |
| Classification | | |
| Acute Tox. 4 - H302 | | |
| STOT RE 2 - H373 | | |
| TERT-BUTYL HYDROPER | OXIDE | <1% |
| CAS number: 75-91-2 | EC number: 200-915-7 REACH registration number: 0 2119446670-40-XXXX | 1- |
| Classification | | |
| Flam. Liq. 3 - H226 | | |
| Org. Perox. C - H242 | | |
| Acute Tox. 4 - H302 | | |
| Acute Tox. 3 - H311 | | |
| Acute Tox. 2 - H330 | | |
| Skin Corr. 1B - H314 | | |
| Eye Dam. 1 - H318 | | |
| Skin Sens. 1 - H317 | | |
| Muta. 2 - H341 | | |
| Aquatic Chronic 2 - H411 | | |
| CUMENE HYDROPEROXI | DE | <1% |
| CAS number: 80-15-9 | EC number: 201-254-7 REACH registration number: 0 | 1- |
| | 2119475796-19-XXXX | |
| Classification | 2119475796-19-XXXX | |
| Classification | 2119475796-19-XXXX | |
| Org. Perox. E - H242 | 2119475796-19-XXXX | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 | 2119475796-19-XXXX | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 | 2119475796-19-XXXX | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 | 2119475796-19-XXXX | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 | 2119475796-19-XXXX | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 | 2119475796-19-XXXX | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 | 2119475796-19-XXXX | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 | 2119475796-19-XXXX | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411 | 2119475796-19-XXXX atements is displayed in Section 16. | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411 The full text for all hazard sta | atements is displayed in Section 16. | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411 The full text for all hazard sta SECTION 4: First aid measure | atements is displayed in Section 16. Ires | |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411 | atements is displayed in Section 16. Ires | nues. |
| Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411 The full text for all hazard sta SECTION 4: First aid measure 4.1. Description of first aid measure | atements is displayed in Section 16. Ires Ieasures | |

| Eye contact | Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. |
|--|---|
| 4.2. Most important symptoms | and effects, both acute and delayed |
| Inhalation | May cause irritation. |
| Skin contact | Skin irritation. Mild dermatitis, allergic skin rash. |
| Eye contact | Irritating and may cause redness and pain. |
| 4.3. Indication of any immedia | te medical attention and special treatment needed |
| Notes for the doctor | No specific recommendations. Treat symptomatically. |
| SECTION 5: Firefighting meas | sures |
| 5.1. Extinguishing media | |
| Suitable extinguishing media | Foam, carbon dioxide or dry powder. |
| Unsuitable extinguishing media | Water. |
| 5.2. Special hazards arising fr | om the substance or mixture |
| Hazardous combustion products | Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide, carbon dioxide, and unknown hydrocarbons. |
| 5.3. Advice for firefighters | |
| Special protective equipment for firefighters | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. |
| for mongritoro | olouing. |
| SECTION 6: Accidental release | - |
| SECTION 6: Accidental release | - |
| SECTION 6: Accidental release | e measures |
| SECTION 6: Accidental releas 6.1. Personal precautions, pro | tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. |
| SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions | tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. |
| SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution | tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. |
| SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions | tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. |
| SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for | be measures tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. s Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. |
| SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up | be measures tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. s Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. |
| SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section | tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. Containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. S For personal protection, see Section 8. For waste disposal, see section 13. |
| SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections | be measures tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. s Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. ns For personal protection, see Section 8. For waste disposal, see section 13. |
| SECTION 6: Accidental release 6.1. Personal precautions, pro- Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and stor | tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. ns For personal protection, see Section 8. For waste disposal, see section 13. rage |
| SECTION 6: Accidental release 6.1. Personal precautions, pro- Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and sto 7.1. Precautions for safe hand Usage precautions | tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. Containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. S For personal protection, see Section 8. For waste disposal, see section 13. rage ling Use in a well ventilated area. Avoid contact with skin and eyes. Avoid eating, drinking and |
| SECTION 6: Accidental release 6.1. Personal precautions, pro- Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and sto 7.1. Precautions for safe hand Usage precautions | tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. ns For personal protection, see Section 8. For waste disposal, see section 13. rage ling Use in a well ventilated area. Avoid contact with skin and eyes. Avoid eating, drinking and smoking when using the product. |

Specific end use(s)This product is not recommended for use in joints which will be in contact with either pure
oxygen or steam.

Usage description Adhesive. Sealant.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

ETHANEDIOL

Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m³ vapour Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m³ vapour Sk Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate Sk WEL = Workplace Exposure Limit Sk = Can be absorbed through the skin.

8.2. Exposure controls

Protective equipment





| Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients. |
|---|
| The following protection should be worn: Chemical splash goggles or face shield. Personal eye protection should conform to EN 166 |
| Nitrile rubber or Viton [™] gloves are recommended. Gloves should conform to EN 374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. |
| Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance. |
| Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Use of good industrial hygiene practices is required. |
| Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Organic vapour filter. Type A. |
| |

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

| Appearance | Liquid. |
|---------------------------------|-----------------|
| Colour | Green. |
| Odour | Acrylic |
| Odour threshold | Not available. |
| рН | Not relevant. |
| Melting point | Not available. |
| Initial boiling point and range | Not applicable. |

| Flash point | >100°C |
|--|--|
| Evaporation rate | Not available. |
| Upper/lower flammability or explosive limits | Not available. |
| Vapour pressure | Not available. |
| Vapour density | Not available. |
| Relative density | 1.1 |
| Solubility(ies) | Slightly soluble in water. Miscible with the following materials: Organic solvents. |
| Auto-ignition temperature | Not available. |
| Decomposition Temperature | Not available. |
| Viscosity | ≈9000 mPa s @ 23°C |
| Oxidising properties | Not available. |
| 9.2. Other information | |
| Other information | Not relevant. |
| SECTION 10: Stability and rea | Ictivity |
| 10.1. Reactivity | |
| Reactivity | The following materials may react with the product: Strong oxidising agents. |
| 10.2. Chemical stability | |
| Stability | Stable at normal ambient temperatures. |
| 10.3. Possibility of hazardous | reactions |
| Possibility of hazardous reactions | There are no known reactivity hazards associated with this product. |
| <u>10.4. Conditions to avoid</u> Conditions to avoid 10.5. Incompatible materials | Avoid the absence of air, and metal contamination. |
| Materials to avoid | Metals and their salts. Free radical initiators. |
| 10.6. Hazardous decompositio | n products |
| Hazardous decomposition products | Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds. |
| SECTION 11: Toxicological int | formation |
| 11.1. Information on toxicologi | cal effects |
| Toxicological effects | The toxicological properties of this product have not been fully evaluated. Avoid direct contact with skin or eyes. Do not ingest or inhale. |
| Skin corrosion/irritation Animal data Serious eye damage/irritation Serious eye damage/irritation | Irritating to skin. Causes serious eye irritation. |
| | |

| Skin sensitisation Skin sensitisation | May cause sensitisation by skin contact. |
|--|--|
| Aspiration hazard Aspiration hazard | None under normal conditions. |
| Inhalation | In high concentrations, vapours may irritate throat and respiratory system and cause |

coughing.

Toxicological information on ingredients.

2-HYDROXYETHYL METHACRYLATE

| Acute toxicity - oral | |
|---------------------------------------|---------------------------------------|
| Acute toxicity oral (LD₅₀ mg/kg) | 5,000.0 |
| Species | Rat |
| ATE oral (mg/kg) | 5,000.0 |
| Acute toxicity - dermal | |
| Acute toxicity dermal (LD₅₀ mg/kg) | 3,000.0 |
| Species | Rabbit |
| ATE dermal (mg/kg) | 3,000.0 |
| | BISPHENOL A ETHOXYLATE DIMETHACRYLATE |
| Acute toxicity - oral | |
| Acute toxicity oral (LD₅₀ mg/kg) | 2,000.1 |
| Species | Rat |
| ATE oral (mg/kg) | 2,000.1 |
| Acute toxicity - dermal | |
| Acute toxicity dermal (LD₅₀ mg/kg) | 2,000.1 |
| Species | Rat |
| ATE dermal (mg/kg) | 2,000.1 |
| Skin corrosion/irritation | |
| Skin corrosion/irritation | Not irritating. |
| Serious eye damage/irritatio | on |
| Serious eye damage/irritation | Not irritating. |
| Skin sensitisation | |
| Skin sensitisation | Not sensitising. |
| Germ cell mutagenicity | |

Genotoxicity - in vitro Chromosome aberration: Negative.

ACRYLIC ACID

| Acute toxicity - oral | |
|---|--|
| Acute toxicity oral (LD₅₀ mg/kg) | 1,405.0 |
| Species | Rat |
| ATE oral (mg/kg) | 500.0 |
| Acute toxicity - dermal | |
| Acute toxicity dermal (LD₅₀ mg/kg) | 2,000.0 |
| Species | Rabbit |
| ATE dermal (mg/kg) | 1,100.0 |
| Acute toxicity - inhalation | |
| Acute toxicity inhalation (LC50 dust/mist mg/l) | 3.6 |
| Species | Rat |
| ATE inhalation (dusts/mists mg/l) | 3.6 |
| Carcinogenicity | |
| IARC carcinogenicity | IARC Group 3 Not classifiable as to its carcinogenicity to humans. |
| Reproductive toxicity | |
| Reproductive toxicity - fertility | - NOAEL 460 mg/l, Oral, Rat P, F1 |
| Reproductive toxicity - development | Fetotoxicity: - NOAEC: >= 0.673 mg/l, Inhalation, Rabbit |
| | TERT-BUTYL HYDROPEROXIDE |
| Acute toxicity - oral | |
| Acute toxicity oral (LD₅₀ mg/kg) | 560.0 |
| Species | Rat |
| ATE oral (mg/kg) | 560.0 |
| Acute toxicity - dermal | |
| Acute toxicity dermal (LD₅₀ mg/kg) | 440.0 |
| Species | Rabbit |
| ATE dermal (mg/kg) | 440.0 |
| Acute toxicity - inhalation | |
| | |

| | Acute toxicity inhalation (LC₅₀ gases ppmV) | 1.85 | |
|--|---|--|--|
| | Species | Rat | |
| | ATE inhalation (gases ppm) | 100.0 | |
| | Skin corrosion/irritation | | |
| | Animal data | Corrosive to skin. | |
| | Serious eye damage/irritation | | |
| | Serious eye damage/irritation | Corrosive | |
| | Skin sensitisation | | |
| | Skin sensitisation | Sensitising. | |
| | Reproductive toxicity | | |
| | Reproductive toxicity - fertility | - NOAEL 21 mg/kg/day, Oral, Rat P | |
| | Inhalation | Irritating to respiratory system. | |
| | | CUMENE HYDROPEROXIDE | |
| | Acute toxicity - oral | | |
| | ATE oral (mg/kg) | 500.0 | |
| | Acute toxicity - dermal | | |
| | ATE dermal (mg/kg) | 1,100.0 | |
| | Acute toxicity - inhalation | | |
| | ATE inhalation (vapours mg/l) | 3.0 | |
| | Skin corrosion/irritation | | |
| | Animal data | Highly irritating. | |
| | Serious eye damage/irritat | ion | |
| | Serious eye damage/irritation | Irritating to eyes. | |
| | Skin sensitisation | | |
| | Skin sensitisation | Not sensitising. | |
| SECTION 1 | 2: Ecological Information | | |
| Ecotoxicity | The pro- | duct is not expected to be hazardous to the environment. | |
| 12.1. Toxicit | — | | |
| Toxicity | No data | available. | |
| Ecological information on ingredients. | | | |
| | | 2-HYDROXYETHYL METHACRYLATE | |
| | | | |

| Acute toxicity - fish | LC₅₀, 96 hours: > 100 mg/l, Oryzias latipes (Red killifish) |
|---|--|
| Acute toxicity - aquatic invertebrates | EC₅₀, 48 hours: 380 mg/l, Daphnia magna |
| Acute toxicity - aquatic plants | EC₅₀, 72 hours: 836 mg/l, Selenastrum capricornutum NOEC, 72 hours: 400 mg/l, Selenastrum capricornutum |
| Acute toxicity - microorganisms | EC₅₀, 16 hours: > 3000 mg/l, Pseudomonas fluorescens |
| Chronic toxicity - aquatic invertebrates | NOEC, 21 days: 24.1 mg/l, Daphnia magna |
| | BISPHENOL A ETHOXYLATE DIMETHACRYLATE |
| Acute toxicity - fish | LL₅₀, 96 hours: >100 mg/l, Onchorhynchus mykiss (Rainbow trout) |
| Acute toxicity - aquatic invertebrates | NOELR, 48 hours: 100 mg/l, Daphnia magna |
| Acute toxicity - microorganisms | NOEC, 3 hours: 10 mg/l, Activated sludge |
| | ACRYLIC ACID |
| Acute aquatic toxicity | |
| LE(C)₅₀ | $0.1 < L(E)C50 \le 1$ |
| M factor (Acute) | 1 |
| Acute toxicity - fish | LC₅₀, 96 hours: 222 mg/l, Brachydanio rerio (Zebra Fish) |
| Acute toxicity - aquatic invertebrates | LC₅₀, 24 hours: 270 mg/l, Daphnia magna EC₅₀, 48 hours: 95 mg/l, Daphnia magna |
| Acute toxicity - aquatic plants | EC₅₀, 72 hours: 0.04 mg/l, Desmodesmus subspicatus EC₅₀, 96 hours: 0.17 mg/l, Pseudokirchneriella subcapitata |
| Acute toxicity - microorganisms | EC ₂₀ , 30 minutes: 900 mg/l, Activated sludge |
| Chronic toxicity - aquatic invertebrates | NOEC, 21 days: 19 mg/l, Daphnia magna |
| | TERT-BUTYL HYDROPEROXIDE |
| Acute toxicity - fish | LC₅₀, 96 hours: 29.6 mg/l, Pimephales promelas (Fat-head Minnow) LC₅₀, 96 hours: 56.9 mg/l, Poecilia reticulata (Guppy) |
| Acute toxicity - aquatic invertebrates | EC₅₀, 48 hours: 14.1 mg/l, Daphnia magna |
| Acute toxicity - microorganisms | EC₅₀, 30 minutes: 17 mg/l, Activated sludge |
| | CUMENE HYDROPEROXIDE |

Acute toxicity - fish LC₅₀, 96 hour: 3.9 mg/l, Onchorhynchus mykiss (Rainbow trout)

12.2. Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

| | 2-HYDROXYETHYL METHACRYLATE |
|--|---|
| Biodegradation | Water - Degradation 84%: 28 days |
| | BISPHENOL A ETHOXYLATE DIMETHACRYLATE |
| Persistence and degradability | The product is biodegradable. |
| | ACRYLIC ACID |
| Biodegradation | Water - Degradation 81%: 28 days |
| | TERT-BUTYL HYDROPEROXIDE |
| Biodegradation | The product is not readily biodegradable. Water - 0 %: 28 days |
| | CUMENE HYDROPEROXIDE |
| Biodegradation | The substance is readily biodegradable. |
| 12.3. Bioaccumulative potential | |
| Bioaccumulative potential No data | a available on bioaccumulation. |
| Ecological information on ingredients. | |
| | 2-HYDROXYETHYL METHACRYLATE |
| Bioaccumulative potential | BCF: 1.34 - 1.54, |
| | BISPHENOL A ETHOXYLATE DIMETHACRYLATE |
| Partition coefficient | log Pow: 5.30~5.62 |
| | ACRYLIC ACID |
| Partition coefficient | log Kow: 0.46 |
| 12.4. Mobility in soil | |
| Mobility No data | a available. |
| Ecological information on ingredients. | |
| | 2-HYDROXYETHYL METHACRYLATE |
| Adsorption/desorption coefficient | Water - Koc: 42.7 @ 20°C |
| | ACRYLIC ACID |
| Surface tension | 69.6 mN/m @ 20°C |

TERT-BUTYL HYDROPEROXIDE

| Surface tension | 69.9 mN/m @ 20°C | |
|--|---|--|
| 12.5. Results of PBT and vPvB | 3 assessment | |
| Results of PBT and vPvB assessment | This product does not contain any substances classified as PBT or vPvB. | |
| Ecological information on ingre | edients. | |
| | TERT-BUTYL HYDROPEROXIDE | |
| Results of PBT ar assessment | nd vPvB This product does not contain any substances classified as PBT or vPvB. | |
| 12.6. Other adverse effects | | |
| Other adverse effects | None known. | |
| SECTION 13: Disposal conside | erations | |
| 13.1. Waste treatment methods | <u>S</u> | |
| General information | Waste disposal should be in accordance with existing Community, National and local regulations Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied. | |
| Disposal methods | Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. | |
| Waste class | 08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances. | |
| SECTION 14: Transport inform | nation | |
| General | The product is not classified as dangerous for carriage. | |
| 14.1. UN number | | |
| Not applicable. | | |
| 14.2. UN proper shipping name | e | |
| Not applicable. | | |
| 14.3. Transport hazard class(e | <u>s)</u> | |
| Not applicable. | | |
| 14.4. Packing group | | |
| Not applicable. | | |
| 14.5. Environmental hazards | | |
| Environmentally hazardous sul No. | bstance/marine pollutant | |
| 14.6. Special precautions for us | ser | |
| Not applicable. | | |
| 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code | | |

Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | | | |
|--|--|--|--|
| National regulations | The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). | | |
| EU legislation | Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) | | |
| Guidance | Workplace Exposure Limits EH40. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for Substances and Preparations. | | |

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

| Revision date | 27/06/2017 |
|---------------------------|---|
| Revision | 3 |
| Supersedes date | 05/05/2017 |
| Hazard statements in full | H226 Flammable liquid and vapour. H242 Heating may cause a fire. 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 damage. H319 Toxic if inhaled. H331 Toxic if inhaled. H332 Harmful if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects. H413 May cause long lasting harmful effects to aquatic life. |

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.