# SAFETY DATA SHEET
# BELZONA® 1111 (SUPER METAL) BASE

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

### 1.1. Product identifier

**Product name** BELZONA® 1111 (SUPER METAL) BASE

**Product number** SN2635

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

**Identified uses** Engineering grade repair system for repairing and rebuilding machinery and equipment. For industrial use only.

**Uses advised against** The product should not be used for purposes other than those recommended in the appropriate Instructions For Use (IFU) leaflet.

### 1.3. Details of the supplier of the safety data sheet

**Supplier**
Belzona Polymerics Limited
Claro Road, Harrogate
HG1 4DS
United Kingdom
+44 1423 567641
sds@belzona.com

**Manufacturer**
Belzona Polymerics Limited
Claro Road, Harrogate
HG1 4DS
United Kingdom
+44 1423 567641
sds@belzona.com

### 1.4. Emergency telephone number

**Emergency telephone** ChemTel: +1 813-248-0585

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification (EC 1272/2008)**

**Physical hazards** Not Classified

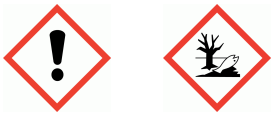
**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

**Environmental hazards** Aquatic Chronic 2 - H411

**Reference** The full text for all hazard statements is displayed in Section 16.

### 2.2. Label elements

**Hazard pictograms**



# BELZONA® 1111 (SUPER METAL) BASE

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|---|---|
| **Signal word** | Warning |
| **Hazard statements** | H315 Causes skin irritation.<br>H319 Causes serious eye irritation.<br>H317 May cause an allergic skin reaction.<br>H411 Toxic to aquatic life with long lasting effects. |
| **Precautionary statements** | P273 Avoid release to the environment.<br>P280 Wear protective gloves, protective clothing and eye protection.<br>P501 Dispose of contents/ container in accordance with national regulations. |
| **Contains** | EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL NOVOLAC RESIN |

### 2.3. Other hazards

Based on information received from our suppliers no PBT or vPvB substances are intentionally added to this product.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**EPOXY PHENOL NOVOLAC RESIN** **10-30%**

CAS number: 9003-36-5 EC number: 500-006-8 REACH registration number: 01-2119454392-40-xxxx

**Classification**
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

**EPOXY RESIN (Number average MW <= 700 )** **10-30%**

CAS number: 1675-54-3 EC number: 216-823-5 REACH registration number: 01-2119456619-26-xxxx

**Classification**
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

The full text for all hazard statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

| | |
|---|---|
| **General information** | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. |
| **Inhalation** | Remove to fresh air. Keep the patient warm and at rest. Give nothing by mouth. |
| **Ingestion** | If accidentally swallowed obtain immediate medical attention. Keep at rest. Rinse mouth with plenty of water. Do NOT induce vomiting. |
| **Skin contact** | Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners. If irritation or inflammation persists, seek medical attention. |

**Eye contact** Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart, and seek medical advice.

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

**Skin contact** Prolonged or repeated contact with the skin or mucous membrane may result in irritant symptoms such as redness, blistering or dermatitis. Onset of symptoms may be delayed. May cause allergic skin reaction.

**Eye contact** Irritating to eyes.

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

**Notes for the doctor** None.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Use: sand, foam, carbon dioxide, chemical powder or water fog for larger fires. Do NOT use water jet.

### 5.2. Special hazards arising from the substance or mixture

**Hazardous combustion products** In a fire, hazardous decomposition products such as smoke, carbon monoxide and carbon dioxide may be produced.

### 5.3. Advice for firefighters

**Protective actions during firefighting** Fire will produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or watercourses.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin and eyes.

### 6.2. Environmental precautions

**Environmental precautions** Prevent product entering drains or sewers. If the product enters drains or sewers in large quantities, the local Water Company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the appropriate National regulating agency.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Scrape the majority of the product into a suitable labelled container. Cover the spill area with sand or other suitable inert material and sweep up into the container. Clean surfaces down with a water and detergent mixture. Do not allow spilled product or the associated washings to enter surface water drains or watercourses.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see section 13. For information on National regulating agencies refer to Section 16.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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**Usage precautions**

Vapours may collect in the container headspace during transit or prolonged storage. Avoid the inhalation of vapour when opening the container. Where possible open containers and mix components in a well ventilated place away from the application area. Avoid skin and eye contact. Smoking, eating and drinking should be prohibited in areas of storage and use. For personal protection see Section 8. Always keep in containers made of the same material as the supply container. Good housekeeping methods and regular safe removal of waste materials should be observed. FIRE/EXPLOSION This product is combustible. Exclude sources of heat, sparks and open flame. Ensure emergency equipment (for fires, spills, leaks, etc.) is readily available.

**Advice on general occupational hygiene**

Wash at the end of each work shift and before eating, smoking and using the toilet. Ensure eye wash facilities (fountain, bottle, vials, etc.) are readily available. Do not put contaminated articles or equipment e.g. spatulas, applicators, brushes, cloths etc., into pockets. Where necessary, contaminated work clothing and shoes should be removed to prevent cross contamination of surfaces and the risk of inadvertent skin contact and ingestion.

## 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions**

Observe the label precautions. Store between 5 °C and 30 °C unless otherwise stated in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorised access. Store separately from oxidising agents and strongly alkaline and strongly acidic materials. ENVIRONMENTAL STORAGE PRECAUTIONS Spillage, incorrect storage of chemicals or waste materials or unsuitable disposal activities can result in pollutants seeping through the soil, causing serious harm to groundwater- which is a vital source of drinking water. All wastes, especially liquid wastes, must be securely stored on site in designated areas that are isolated from surface drains and bunded to contain any spillages.

## 7.3. Specific end use(s)

**Specific end use(s)**

Application by plastic applicator or spatula provided. Mix with Solidifier component before use. Please refer to the relevant Belzona® Instructions For Use for further information.

## SECTION 8: Exposure controls/Personal protection

## 8.1. Control parameters

### EPOXY PHENOL NOVOLAC RESIN (CAS: 9003-36-5)

**DNEL**

Workers - Dermal; Short term local effects: 0.0083 mg/cm²
Workers - Dermal; Long term systemic effects: 104.15 mg/kg/day
Workers - Inhalation; Long term systemic effects: 29.39 mg/m³
Consumer - Dermal; Long term systemic effects: 62.5 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 8.7 mg/m³
Consumer - Oral; Long term systemic effects: 6.25 mg/kg/day

**PNEC**

Fresh water; 0.003 mg/l
Sediment (Freshwater); 0.294 mg/kg
marine water; 0.0003 mg/l
Sediment (Marinewater); 0.0294 mg/kg
Intermittent release; 0.0254 mg/l
STP; 10 mg/l
Soil; 0.237 mg/kg

### EPOXY RESIN (Number average MW <= 700 ) (CAS: 1675-54-3)

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|---|---|
| **DNEL** | Workers - Dermal; Short term systemic effects: 8.3 mg/kg<br>Workers - Inhalation; Short term systemic effects: 12.3 mg/m³<br>Workers - Dermal; Long term systemic effects: 8.3 mg/kg<br>Workers - Inhalation; Long term systemic effects: 12.3 mg/m³<br>General population - Dermal; Short term systemic effects: 3.6 mg/kg<br>General population - Inhalation; Short term systemic effects: 0.75 mg/m³<br>General population - Oral; Short term systemic effects: 0.75 mg/kg<br>General population - Dermal; Long term systemic effects: 3.6 mg/kg<br>General population - Inhalation; Long term systemic effects: 0.75 mg/m³<br>General population - Oral; Long term systemic effects: 0.75 mg/kg |
| **PNEC** | Fresh water; 0.003 mg/l<br>Sediment (Freshwater); 0.5 mg/kg<br>marine water; 0.0003 mg/l<br>Sediment (Marinewater); 0.5 mg/kg<br>Intermittent release; 0.013 mg/l<br>STP; 10 mg/l<br>Sediment; 0.05 mg/kg |

### 8.2. Exposure controls

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|---|---|
| **Appropriate engineering controls** | Open containers in a well ventilated area. |
| **Eye/face protection** | It is recommended that eye protection, for example safety spectacles or goggles are worn at all times during the handling and use of this material. Eye protection should be selected in accordance with EN 166 Personal eye protection. During subsequent machining, grinding, abrasion or removal of this product appropriate eye protection should be selected according to the type of tools or equipment used. |
| **Hand protection** | Hand protection should be selected in accordance with EN 374 Protective gloves against chemicals. The breakthrough time of the gloves selected should exceed the expected use period. Where this is not possible gloves should be changed in good time, and in any case before the breakthrough time is exceeded. If any doubt exists, advice should be sought from glove suppliers on appropriate types. Barrier creams may help to protect exposed areas of skin but are not substitutes for full physical protection. They should not be applied once exposure has occurred. SPECIFIC RECOMMENDATIONS Wear protective gloves made of the following material: Nitrile rubber. STANDARD APPLICATIONS Medium-heavy weight gauntlet type gloves that provide wrist protection are suitable. EMERGENCY REPAIRS OR APPLICATION OF SINGLE UNITS Light weight disposable gloves are normally suitable. |
| **Other skin and body protection** | STANDARD APPLICATIONS Synthetic polyethylene coveralls such as the Tyvek PRO-TECH® or equivalent coveralls manufactured to EN 13034 Type 6, Protective clothing against liquid chemicals. Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner. EMERGENCY REPAIRS OR APPLICATION OF SINGLE UNITS Cotton overalls are normally suitable. |
| **Respiratory protection** | Respiratory protection is not normally required, but the hazards of the Solidifier component should be considered for mixing and application purposes. |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

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|---|---|
| **Appearance** | Paste. |
| **Colour** | Dark grey. |
| **Odour** | Epoxy. |
| **Odour threshold** | Not applicable. |

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|---|---|
| **pH** | Not applicable. |
| **Melting point** | Not available. |
| **Initial boiling point and range** | >200°C/>392°F @ 760 mm Hg |
| **Flash point** | >170°C/>338°F Closed cup. |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | Not applicable. |
| **Upper/lower flammability or explosive limits** | Not applicable. |
| **Vapour pressure** | Low. |
| **Vapour density** | > 1 |
| **Relative density** | 2.75 - 2.85 @ 20°C/68°F |
| **Solubility(ies)** | Immiscible with water. |
| **Partition coefficient** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition Temperature** | >200°C/>392°F |
| **Viscosity** | Not available. |
| **Explosive properties** | Not applicable. |
| **Oxidising properties** | Not applicable. |

### 9.2. Other information

| | |
|---|---|
| **Other information** | This section contains typical values for Health, Safety and Environmental guidance only and is not intended to represent a technical specification for the product. |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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| **Reactivity** | There are no known reactivity hazards associated with this product. |

### 10.2. Chemical stability

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|---|---|
| **Stability** | Stable under recommended storage and handling conditions (see Section 7). |

### 10.3. Possibility of hazardous reactions

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|---|---|
| **Possibility of hazardous reactions** | No hazardous reactions expected when stored and handled as recommended. |

### 10.4. Conditions to avoid

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| **Conditions to avoid** | There are no known conditions that are likely to result in a hazardous situation. |

### 10.5. Incompatible materials

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| **Materials to avoid** | Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of exothermic reaction. |

### 10.6. Hazardous decomposition products

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|---|---|
| **Hazardous decomposition products** | Does not decompose when used and stored as recommended. |

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Acute toxicity - oral**

**Notes (oral $LD_{50}$)** Based on available data the classification criteria are not met.

**Acute toxicity - dermal**

**Notes (dermal $LD_{50}$)** Based on available data the classification criteria are not met.

**Acute toxicity - inhalation**

**Notes (inhalation $LC_{50}$)** Based on available data the classification criteria are not met.

**Skin corrosion/irritation**

**Animal data** Irritating to skin.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Irritating to eyes.

**Respiratory sensitisation**

**Respiratory sensitisation** Based on available data the classification criteria are not met.

**Skin sensitisation**

**Skin sensitisation** Based on the properties of the epoxy constituent(s) and considering toxicological data on similar preparations, this preparation may be a skin sensitiser. Repeated skin contact may lead to sensitisation with possibly cross-sensitisation to other epoxies.

**Germ cell mutagenicity**

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Based on available data the classification criteria are not met.

**Carcinogenicity**

**Carcinogenicity** Based on available data the classification criteria are not met.

**IARC carcinogenicity** Not listed.

**NTP carcinogenicity** Not listed.

**Reproductive toxicity**

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

**Specific target organ toxicity - single exposure**

**STOT - single exposure** Based on available data the classification criteria are not met.

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure** Based on available data the classification criteria are not met.

**Aspiration hazard**

**Aspiration hazard** Based on available data the classification criteria are not met.

**Route of exposure** Skin and/or eye contact

**Medical considerations** Skin contact constitutes a pronounced hazard. Persons with a history of skin sensitisation problems should only be employed in processes in which this product is used under appropriate medical supervision.

**Toxicological information on ingredients.**

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**EPOXY RESIN (Number average MW <= 700 )**

**Toxicological effects** @@@Repeated skin contact may lead to sensitization with possibly cross-sensitization to other epoxies.@@@ @@@In rare cases, low molecular weight liquid epoxy resins can cause an allergic respiratory reaction like asthma, based on limited human information. The evidence
available is not however, considered to fall within the classification criteria as laid out within the OSHA Hazard Communication Standard nor the Controlled Products Regulations.@@@

## SECTION 12: Ecological information

**Ecotoxicity** There is no data on the product itself. The following information is provided on the basis of the individual component data available.

### 12.1. Toxicity

**Toxicity** Based on the epoxy resin content, this product is expected to have experimental LC50/EC50/IC50 values between 1 and 10 mg/l in most sensitive species.

**Ecological information on ingredients.**

**EPOXY RESIN (Number average MW <= 700 )**

**Toxicity** Based on the epoxy resin content, this product is expected to have experimental LC50/EC50/IC50 values between 1 and 10 mg/l in most sensitive species.

### 12.2. Persistence and degradability

**Persistence and degradability** Based on the epoxy resin content, this product is not expected to be rapidly biodegradable according to OECD/EC guidelines.

**Ecological information on ingredients.**

**EPOXY RESIN (Number average MW <= 700 )**

**Persistence and degradability** Based on the epoxy resin content, this product is not expected to be rapidly biodegradable according to OECD/EC guidelines.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Based on the epoxy resin content, this product is expected to bioaccumulate.

**Partition coefficient** Not available.

**Ecological information on ingredients.**

**EPOXY RESIN (Number average MW <= 700 )**

**Bioaccumulative potential** Based on the epoxy resin content, this product Log octanol/water partition coefficient (Log Kow) is expected to be greater than 4.0.

### 12.4. Mobility in soil

**Mobility** There is no data available on the product itself.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** Based on information received from our suppliers no PBT or vPvB substances are intentionally added to this product.

### 12.6. Other adverse effects

**Other adverse effects** None known.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal methods** Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Controlled wastes include non-hazardous industrial and hazardous chemical wastes. All controlled wastes should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. In addition, hazardous chemical wastes should be disposed of in accordance with the Hazardous Waste Regulations. When in doubt, using information provided in this safety data sheet, advice should be obtained from the National regulating agency whether the Hazardous Waste Regulations apply. Refer to information sources listed in Section 16. COMPONENT DISPOSAL TRANSIT PACKAGING: shrink or stretch wrap, boxes and fittings that have not been contaminated with product should be re-used or recycled. UNREACTED PRODUCT and empty uncleaned containers should be disposed of as hazardous chemical waste. REACTED PRODUCT, contaminated mixing boards, spatulas, applicators, brushes, nominally empty containers and mixing bowls- once fully cured- should be disposed of as non-hazardous waste.

**Waste class** List of Waste Code: 08 04 09* *Hazardous waste pursuant to Directive 91/689/EEC. The LoW code quoted in this section is a general entry. LoW codes should be assigned based on the end use of the product. Where a more specific code is available it should be used in preference to the code given above. Where in doubt refer to the List of Wastes, your local licensed waste contractor or the National regulating agency. Refer to information sources listed in Section 16.

## SECTION 14: Transport information

**General** Labelling and packaging requirements may vary with pack and load size. Please refer to the current transport regulations. 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 accident or spillage.

### 14.1. UN number

**UN No. (ADR/RID)** 3077

**UN No. (IMDG)** 3077

**UN No. (ICAO)** 3077

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** Environmentally hazardous substance, solid, n.o.s. (containing Epoxy resin mixture)

**Proper shipping name (IMDG)** Environmentally hazardous substance, solid, n.o.s. (containing Epoxy resin mixture)

**Proper shipping name (ICAO)** Environmentally hazardous substance, solid, n.o.s. (containing Epoxy resin mixture)

### 14.3. Transport hazard class(es)

**ADR/RID class** 9

**IMDG class** 9

**ICAO class/division** 9

### 14.4. Packing group

**ADR/RID packing group** III

**IMDG packing group** III

**ICAO packing group** III

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

Yes. Labelling requirements will vary with hazardous net quantity. Please refer to the current transport regulations.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

## SECTION 15: Regulatory information

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

**National regulations** The provisions of the Health and Safety at Work Act and the Control of Substances Hazardous to Health Regulations with amendments apply to the use of this product at work. This product may add to the calculation for determining whether a site is within scope of the Control of Major Accident Hazards Regulations.

**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).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. In accordance with Regulation (EC) No 453/2010.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

**General information** The information contained within this safety data sheet does not constitute the users own assessment of workplace risks as required by other health and safety legislation. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant National legislation are complied with. The information contained within this safety data sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

**Key literature references and sources for data** Provision and Use of Personal Protective Equipment Regulations 1992 (SI 1992: 2932). PPG18: Control of Spillages and fire fighting run-off. HSG53 The selection, use and maintenance of respiratory protective equipment, as amended. HSG97 A step by step guide to COSHH assessment. Working with ADR: An introduction to the carriage of dangerous goods by road. UK ENVIRONMENTAL REGULATING AGENCIES: England and Wales- Environment Agency; Scotland- Scottish Environment Protection Agency (SEPA); Northern Ireland- Environment and Heritage Service.

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|---|---|
| **Classification procedures according to Regulation (EC) 1272/2008** | Where there is no test data available for the mixture, the classification has been determined based on the individual component hazard data in accordance with EC 1272/2008. |
| **Training advice** | For further information please contact your supplier, Belzona consultant or Belzona direct. |
| **Revision comments** | REVISION. This safety data sheet has been revised in the following Section(s): 3, Please observe the REVISION DATE. Should you be reading a safety data sheet that is more than 24 months old or have concerns over its validity, please contact your local Belzona consultant or Belzona direct (sds@belzona.com) and the most current information will be sent to you. |
| **Revision date** | 17/07/2020 |
| **Revision** | 3.7 |
| **SDS number** | 11301 |
| **SDS status** | English. Approved. |
| **Hazard statements in full** | H315 Causes skin irritation.<br>H317 May cause an allergic skin reaction.<br>H319 Causes serious eye irritation.<br>H411 Toxic to aquatic life with long lasting effects. |