



SAFETY DATA SHEET

BELZONA® 1221 (SUPER E-METAL) BASE

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

1.1. Product identifier

Product name BELZONA® 1221 (SUPER E-METAL) BASE

Product number SN2442

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

Identified uses A rapidly solidifying repair system for emergency and permanent bonding, repairing and rebuilding of all ferrous and non-ferrous metals. 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 Not Classified

Environmental hazards Not Classified

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

2.2. Label elements

Hazard statements NC Not Classified

Precautionary statements P280 Wear protective clothing and gloves.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | |
|---|---------------|
| N,N-DIALKYLAMINO-DIPHENYLMETHANE | 10-30% |
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|-----------------------|----------------------|
| CAS number: 5285-60-9 | EC number: 226-122-6 |
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Classification

Acute Tox. 4 - H302

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|--|--------------|
| 1,1',1'',1'''-ETHYLENEDINITRILOTETRAPROPAN-2-OL | 5-10% |
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| CAS number: 102-60-3 | EC number: 203-041-4 | REACH registration number: 01-2119552434-41-xxxx |
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Classification

Eye Irrit. 2 - H319

| | |
|-------------------------|-------------|
| POLYETHER POLYOL | 1-5% |
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| CAS number: 25322-69-4 |
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Classification

Acute Tox. 4 - H302

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

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|--------------------|-------------------------------------|
| Ingestion | May cause stomach pain or vomiting. |
| Eye contact | May irritate eyes. |

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

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| Notes for the doctor | None. |
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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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

Specific hazards When heated and in case of fire, harmful vapours/gases may be formed.

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 The product is a non-flowing paste. The likelihood of spillage is considered to be extremely unlikely. Avoid contact with 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. Refer to information sources listed in Section 16.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Scrape the product into a suitable labelled container for disposal in accordance with the waste regulations.

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

Usage precautions GENERAL Avoid skin and eye contact. Smoking, eating and drinking should be prohibited in areas of storage and use. For personal protection see Section 8. 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.

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.

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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

Occupational exposure limits

No exposure limits known for ingredient(s).

8.2. Exposure controls

Appropriate engineering controls Use in well ventilated areas or provide adequate mechanical ventilation.

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: Neoprene. Nitrile rubber. **STANDARD APPLICATIONS** Medium-heavy weight gauntlet type gloves that provide wrist protection are suitable. **APPLICATION OF SMALL QUANTITIES** 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. **APPLICATION OF SMALL QUANTITIES** 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 | Amine. |
| Odour threshold | Not applicable. |
| pH | Alkaline. |
| Melting point | Not available. |
| Initial boiling point and range | >240°C/>464°F @ 760 mm Hg |
| Flash point | >160°C/>320°F CC (Closed cup). |
| Evaporation rate | Not available. |

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|---|----------------------------|
| Upper/lower flammability or explosive limits | Not available. |
| Vapour pressure | < 0.13 kPa @ 20°C/68°F |
| Vapour density | > 1 |
| Relative density | 2.25-2.35 @ 20°C/68°F |
| Solubility(ies) | Slightly soluble in water. |
| Partition coefficient | Not available. |
| Auto-ignition temperature | >250°C/>482°F |
| Decomposition Temperature | Not available. |
| Viscosity | Not available. |
| Explosive properties | Not applicable. |
| Oxidising properties | Not applicable. |

9.2. Other information

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|--------------------------|---|
| 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. |
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SECTION 10: Stability and reactivity

10.1. Reactivity

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| Reactivity | There are no known reactivity hazards associated with this product. |
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10.2. Chemical stability

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| Stability | Stable under recommended storage and handling conditions (see Section 7). |
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10.3. Possibility of hazardous reactions

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| Possibility of hazardous reactions | No hazardous reactions expected when stored and handled as recommended. |
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10.4. Conditions to avoid

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

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. |
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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

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| Notes (oral LD₅₀) | Based on available data the classification criteria are not met. |
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Acute toxicity - dermal

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|---------------------------------------|--|
| Notes (dermal LD₅₀) | Based on available data the classification criteria are not met. |
|---------------------------------------|--|

Acute toxicity - inhalation

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Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation Conclusive data but not sufficient for classification.

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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 Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

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

Route of entry

Skin and/or eye contact

Toxicological information on ingredients.**N,N-DIALKYLAMINO-DIPHENYLMETHANE****Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 1,340.0

Species Rat

ATE oral (mg/kg) 1,340.0

POLYETHER POLYOL**Acute toxicity - oral**

ATE oral (mg/kg) 1,000.0

SECTION 12: Ecological Information

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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 The products LC50/EC50/IC50 are expected to be greater than 100 mg/l in the most sensitive species.

12.2. Persistence and degradability

Persistence and degradability The product is potentially degradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available.

Partition coefficient Not available.

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.

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 non-hazardous 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* 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 Not classified for transport under current National and International 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

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Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

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 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 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.

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.

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| | |
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| 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. UK ENVIRONMENTAL REGULATING AGENCIES: England and Wales- Environment Agency; Scotland- Scottish Environment Protection Agency (SEPA); Northern Ireland- Environment and Heritage Service. |
| 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): 1, 4, 7, 8, 11, 13, 16, 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 | 29/07/2016 |
| Revision | 2.1 |
| SDS number | 10588 |
| SDS status | English. Approved. |
| Hazard statements in full | H302 Harmful if swallowed. H319 Causes serious eye irritation. |