SAFETY DATA SHEET
BELZONA® 1111 (SUPERMETAL) BASE
According to Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Product name: BELZONA® 1111 (SUPERMETAL) BASE
Internal Id: 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
North Yorkshire
HG1 4DS, England
☏ +44 (0) 1423 567641
+44 (0) 1423 505967
sds@belzona.com

1.4. Emergency telephone number
+44 (0) 1423 567641 (office hours: 0845-1715 GMT)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Classification (1999/45/EEC): Xi; R36/38, R43, N; R51/53.
Reference: The full text for all R-Phrases is displayed in Section 16.

2.2. Label elements
Contains: EPOXY RESIN (Number average MW <= 700 )
Labelling: Irritant, Dangerous for the environment
Risk Phrases: R36/38, Irritating to eyes and skin.
R43, May cause sensitisation by skin contact.
R51/53, Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases: P5, Contains epoxy constituents. See information supplied by the manufacturer.
S36/37, Wear suitable protective clothing and gloves.
S60, This material and its container must be disposed of as hazardous waste.
2.3. Other hazards
Not applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>EPOXY RESIN (Number average MW &lt;= 700 )</th>
<th>10-30%</th>
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<tbody>
<tr>
<td>CAS-No.: 25068-38-6</td>
<td></td>
</tr>
<tr>
<td>EC No.: 500-033-5</td>
<td></td>
</tr>
<tr>
<td>Registration Number: 01-2119456619-26-xxxx</td>
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</tr>
<tr>
<td>Classification (EC 1272/2008)</td>
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</tr>
<tr>
<td>Skin Irrit. 2 - H315</td>
<td></td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
<td>Xi;R36/38</td>
</tr>
<tr>
<td>Skin Sens. 1 - H317</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
<td></td>
</tr>
<tr>
<td>Classification (67/548/EEC)</td>
<td></td>
</tr>
<tr>
<td>R43</td>
<td></td>
</tr>
<tr>
<td>N;R51/53</td>
<td></td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases and Hazard Statements are 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. If breathing has stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in the recovery position and seek medical advice.

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
None.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

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
BELZONA® 1111 (SUPERMETAL) BASE

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

5.3. Advice for firefighters
Special Fire Fighting Procedures
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
Avoid contact with skin and eyes.

6.2. 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
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
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
GENERAL
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. The Manual Handling Operations Regulations may apply to the handling of containers/packages of this product. Refer to the guide weight on the container/package when carrying out assessments.

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.

7.2. Conditions for safe storage, including any incompatibilities
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.

Storage Class
The principals contained in the HSE guidance note Chemical Warehousing: storage of packaged dangerous substances (HSG71) should be observed when storing this product.

7.3. 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
Ingredient Comments
When personal protective equipment, including respiratory protective equipment, is used to control exposure to hazardous substances it must be selected to meet the requirements of the COSHH Regulations.

8.2. Exposure controls

Engineering measures
Open containers in a well ventilated area.

Respiratory equipment
Respiratory protection is not normally required but it may be required when this product is used in confined spaces or where adequate ventilation cannot be achieved.

Hand protection

GENERAL GUIDANCE ON 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
Use protective gloves made of: Neoprene. Nitrile.

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.

Eye 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.

Other 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.

Hygiene measures
Wash hands 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Paste</td>
</tr>
<tr>
<td>Colour</td>
<td>Dark grey</td>
</tr>
<tr>
<td>Odour</td>
<td>Epoxy</td>
</tr>
<tr>
<td>Solubility</td>
<td>Immiscible with water</td>
</tr>
<tr>
<td>Initial boiling point and boiling range (°C)</td>
<td>760 mm Hg</td>
</tr>
<tr>
<td>Relative density</td>
<td>&gt; 200 @</td>
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<tr>
<td>Vapour density (air=1)</td>
<td>2.75 - 2.85 @ 20 °C</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Vapour pressure L</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>&gt; 200</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>&gt; 170 CC (Closed cup)</td>
</tr>
<tr>
<td>Auto Ignition Temperature (°C)</td>
<td>NIA</td>
</tr>
<tr>
<td>Partition Coefficient (N-Octanol/Water)</td>
<td>&gt; 3</td>
</tr>
<tr>
<td>Comments</td>
<td>L = Low. NIA = No Information available.</td>
</tr>
</tbody>
</table>

9.2. Other information
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No specific reactivity hazards associated with this product.

10.2. Chemical stability
Stable under recommended storage and handling conditions (see Section 7).

10.3. Possibility of hazardous reactions
No hazardous reactions expected when stored and handled as recommended.

10.4. Conditions to avoid
No specific conditions are likely to result in a hazardous situation.

10.5. Incompatible materials
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
None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Toxicological information
There is no data on the product itself. Based on the properties of the epoxy constituent(s) and considering toxicological data on similar preparations, this preparation may be a skin sensitisier and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation with possibly cross-sensitisation to other epoxies.

Inhalation
Vapours that may collect in the container headspace during transit or prolonged storage may be harmful by inhalation.

Ingestion
Ingestion is not normally an exposure risk arising from professional applications. Inadvertent ingestion of small amounts of this product through poor hygiene or cross contamination may cause irritation of mucous membranes.

Skin contact
Prolonged or repeated contact with the skin may cause irritation, blistering or dermatitis. Causes of allergic skin reaction have been observed. May cause sensitisation by skin contact.

Eye contact
May cause eye irritation.

Route of entry
Skin and/or eye contact. Ingestion. Inhalation.

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.

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.
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12.1. Toxicity

Acute Fish Toxicity
Based on the epoxy resin (number average MW <=700) content, this product is expected to have experimental LC50/EC50/IC50 values between 1 and 10 mg/l in most sensitive species. Toxic to aquatic organisms.

12.2. Persistence and degradability

Degradability
Based on the epoxy resin (number average MW<=700) content, this product is not expected to be readily biodegradable according to OECD/EC guidelines. May cause long-term adverse effects in the aquatic environment.

12.3. Bioaccumulative potential

Bioaccumulative potential
Based on the epoxy resin (number average MW<=700) content, this product Log octanol/water partition coefficient (Log Pow) is expected to be greater than 3.0. May cause long-term adverse effects in the aquatic environment.

Partition coefficient > 3

12.4. Mobility in soil

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

12.5. 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

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information
All cleaning activities including cleaning of equipment, floors and containers, can produce large volumes of contaminated waste. All cleaning agents used are potentially polluting. Water containing detergents, degreasers or any other cleaning agents must not be allowed to enter the surface water drains or soakaways. All water based cleaning/degreasing operations should be carried out in designated areas away from the surface water system and drained to the foul water system. Where this is not possible the surface water system should be isolated by suitable damming techniques and the contaminated water collected and removed for controlled safe disposal. Where water immiscible cleaners/degreasers are used for example solvents, the relevant product safety data sheet should be referred to for information on safe disposal.

13.1. Waste treatment methods

GENERAL
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 controlled wastes. REACTED PRODUCT, contaminated mixing boards, spatulas, applicators, brushes, nominally empty containers and mixing bowls- once fully cured- should be disposed of as non-hazardous chemical waste.

Waste Class
List of Waste (LoW) 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/ADN) 3077
UN No. (IMDG) 3077
UN No. (ICAO) 3077

14.2. UN proper shipping name

Proper Shipping Name  Environmentally hazardous substance, solid, n.o.s. (containing Epoxy resin mixture)

14.3. Transport hazard class(es)

ADR/RID/ADN Class 9
IMDG Class 9
ICAO Class/Division 9

14.4. Packing group

ADR/RID/ADN Packing group III
IMDG Packing group III
ICAO Packing group III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 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

Uk Regulatory References

This product is classified and labelled for supply in accordance with the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002, as amended.

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.

The information contained within this safety data sheet is provided in accordance with Regulation (EC) No. 1907/2006 as amended concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
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EU Legislation

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.

Information Sources
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.

**HSG193 COSHH essentials: easy steps to control chemicals. OBSOLETE**
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.

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, 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 10-12-2013

Safety Data Sheet Status English. Approved.

Risk Phrases In Full
R36/38 Irritating to eyes and skin. , R43 May cause sensitisation by skin contact. , R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full
H315 Causes skin irritation. , H317 May cause an allergic skin reaction. , H319 Causes serious eye irritation. , H411 Toxic to aquatic life with long lasting effects.

Classification procedure
The hazard classes for the classification of the mixture have been determined by the calculation method.

Revision No. 2.2