SAFETY DATA SHEET
BELZONA® 3111 (FLEXIBLE MEMBRANE)

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® 3111 (FLEXIBLE MEMBRANE)

Internal Id SN2789, SN2793, SN2794, SN2795

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

Identified uses For preventative maintenance and repairs on almost all types of roofs. 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) N;R50/53. R64.

Reference

The full text for all R-Phrases is displayed in Section 16.

2.2. Label elements

Labelling

Dangerous for the environment

Risk Phrases

R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R64	May cause harm to breastfed babies.

Safety Phrases

S23F	Do not breathe spray.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

2.3. Other hazards

May be irritating to eyes and skin.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

ZINC OXIDE		**1-5%**
CAS-No.: 1314-13-2	**EC No.: 215-222-5**	**Registration Number: 01-2119463881-xxxx**
Classification (EC 1272/2008) Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) N;R50/53.	

CHLORINATED PARAFFIN C14-17		**1-5%**
CAS-No.: 85535-85-9	**EC No.: 287-477-0**	
Classification (EC 1272/2008) EUH066 Lact. - H362 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) N;R50/53. R64,R66.	

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. If material is injected under the skin, seek immediate medical attention. Even when there are few or no symptoms do not hesitate to refer the casualty to hospital.

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

General information

Exposure to organic solvent vapours may result in the following symptoms headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness.

Inhalation

Inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion

Possible risk of irreversible effects.

Skin contact

Prolonged or repeated contact with the skin may cause irritation, blistering or dermatitis. Release during high pressure use may result in injection of material into the skin causing local necrosis.

Eye contact

May irritate 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

Hazardous combustion products

In a fire, hazardous decomposition products such as smoke, zinc oxide, 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 spills from 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

Contain and collect spillages with non-combustible absorbent materials e.g. sand, earth, vermiculite, diatomaceous earth and place into a suitable labelled 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 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.

SPECIAL

Do not breathe spray during application. Prevent air-borne concentrations higher than the occupational exposure limits (see Section 8). Exclude non-essential personnel. Minimise the number of employees exposed and the duration of their exposure.

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 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)

Application by brush. May also be applied by spray. Single component material. This product does not require mixing with another 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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ZINC OXIDE	WEL		5 mg/m3		10 mg/m3	

WEL = Workplace Exposure Limit.

Ingredient Comments

In the absence of specific limits in EH40 for individual substances and where there is the possibility of exposure to particulates from sprayed products the following OEL's should be used:

respirable particulates 4 mg/m³; total inhalable particulates 10mg/m³

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.

Exposure to chemicals assigned occupational exposure limits (OELs) should be controlled using the most effective and reliable measures, proportional to the health risk, which minimise their escape and spread. All relevant exposure routes should be taken into account.

8.2. Exposure controls

Engineering measures

Use only in well ventilated areas. If exposure to particulates and/or vapours cannot be controlled to levels below the relevant occupational exposure limits, suitable respiratory protective equipment should be worn (see 'Respirators' below).

Respiratory equipment

GENERAL GUIDANCE ON RESPIRATORY PROTECTION

It is essential that the concentration of the contaminant(s) in the application environment does not exceed the applicable Occupational Exposure Limit(s) (OELs) multiplied by the Assigned Protection Factor (APF) quoted for the respiratory protective equipment selected.

STANDARD APPLICATIONS

Not normally required when this product is handled and applied in well ventilated areas.

SPRAY APPLICATIONS

Where necessary, it is recommended that respiratory protective equipment that complies with EN 14594 (compressed airline breathing apparatus) is worn if exposure to the applicator or other people nearby cannot be controlled to below the occupational exposure limit and engineering methods cannot reasonably be improved.

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/SPRAY APPLICATIONS

Medium-heavy weight gauntlet type gloves that provide wrist protection are 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.

Other Protection

STANDARD APPLICATIONS

Cotton overalls are normally suitable.

SPRAY 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.

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

Appearance	Emulsion.
Colour	Light grey. Slate grey. White or Sand.
Odour	Slight odour. Ammonia.
Solubility	Miscible with water
Initial boiling point and boiling range (°C)	760 mm Hg 100 °C * @
Relative density	1.23 - 1.33 @ 20 °C
Vapour density (air=1)	> 1
Vapour pressure	2.3 * kPa @ 20 °C
pH-Value, Conc. Solution	< 9.6
Viscosity	1.3 - 2.3 P @ 25 °C
Decomposition temperature (°C)	NIA
Flash point (°C)	N.ap
Auto Ignition Temperature (°C)	NIA
Partition Coefficient (N-Octanol/Water)	> 3
Comments	N.ap = Not Applicable. NIA = No Information available. *Quoted value relates to water.

9.2. 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.

Volatile Organic Compound (VOC) 37 g/l (determined by ASTM D2369-10/A)

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. The product contains low levels of coalescing solvents. Exposure to vapours may result in adverse health effects such as irritation of the mucous membrane and the respiratory system and adverse effects on the renal and central nervous systems.

Inhalation

Vapours that may collect in the container headspace during transit or prolonged storage may be harmful by inhalation. Inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion

Ingestion is not normally an exposure risk arising from professional applications. Inadvertent ingestion may result in the following effects: sore throat, abdominal pain, drowsiness, nausea, vomiting and diarrhoea. Contains a substance/group of substances which may cause harm to breastfed babies.

Skin contact

Prolonged or repeated contact with the skin may cause irritation, blistering or dermatitis. Release during high pressure use may result in injection of material into the skin causing local necrosis.

Eye contact

Product splashes in the eye may cause irritation.

Route of entry

Inhalation. Ingestion. Skin and/or eye contact. Injection.

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

Acute Fish Toxicity

Based on the individual component data, the product is expected to have experimental EC50 values less than 1 mg/l in most sensitive species. Very toxic to aquatic organisms.

12.2. Persistence and degradability

Degradability

Based on the individual component data, the product is not expected to be rapidly 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 individual component data, the product Log octanol/water partition coefficient (Log Kow) is expected to be greater than 4.0. 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 -as this product contains heavy metals- should be disposed of as controlled wastes.

Waste Class

List of Waste (LoW) code: 08 01 11*.

*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.
Road Transport Notes	Transport category 3

14.1. UN number

UN No. (ADR/RID/ADN)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082

14.2. UN proper shipping name

Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (containing Zinc oxide and Chlorinated paraffin C14-17 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).

EU Legislation

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. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

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

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.

Training Advice

For further information please contact your supplier, Belzona consultant or Belzona direct.

BELZONA® 3111 (FLEXIBLE MEMBRANE)

Revision Comments

REVISION. This safety data sheet has been revised in the following Section(s): 9, 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 06-06-2014

Safety Data Sheet Status English. Approved.

Risk Phrases In Full

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. , R64 May cause harm to breastfed babies. , R66 Repeated exposure may cause skin dryness or cracking.

Hazard Statements In Full

EUH066 Repeated exposure may cause skin dryness or cracking. , H362 May cause harm to breast-fed children. , H400 Very toxic to aquatic life. , H410 Very 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. 7.2