



MATERIAL SAFETY DATA SHEET

BELZONA® 4111 (MAGMA-QUARTZ) AGGREGATE

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	BELZONA® 4111 (MAGMA-QUARTZ) AGGREGATE		
INTERNAL ID	3200/1356/-/01		
PRODUCT USE	Aggregate component of a three component system. Mix with Belzona® 4151 (Magma-Quartz Resin) Base and Solidifier components before use. All purpose repair system for repairing and resurfacing concrete and stonework damaged by impact, vibration, chemicals and environmental attack. Also for grouting and bonding. Application by trowel, float or other suitable tool. Please refer to the relevant Belzona® Instructions For Use for further information.		
SUPPLIER	Belzona Inc. 2000 N.W. 88 Court Miami FL 33172 ☎ 1-305-594-4994 Fax: 1-305-599-1140 belzona@belzona.com	MANUFACTURER	Belzona Polymerics Limited Claro Road, Harrogate North Yorkshire HG1 4AY, England ☎ +44 (0) 1423 567641 Fax: +44 (0) 1423 505967 belzona@belzona.co.uk
CONTACT PERSON	Prepared by the Regulatory Affairs Department; Phone: +44 (0) 1423 567 641		
EMERGENCY TELEPHONE	CHEMTREC: 800-424-9300 Toll free in United States CHEMTREC: 1-703-527-3887 For calls from outside the United States		

2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Light gray. Beige. Partially damped powder. No characteristic odor. Contains epoxy constituents. May produce an allergic reaction.

POTENTIAL HEALTH EFFECTS

INHALATION

Dust in high concentrations may irritate the respiratory system.

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

Contact with powders/dusts can cause localized skin irritation in folds of the skin or in contact with tight clothing.

EYE CONTACT

Contact with eyes may cause physical irritation.

ROUTE OF ENTRY

Inhalation. Ingestion. Skin and/or eye contact.

TARGET ORGANS

Skin. Respiratory system, lungs.

MEDICAL SYMPTOMS

Repeated contact with the skin may cause dermatitis or allergic skin reaction. Onset of symptoms may be delayed. Inhalation may cause mild and temporary upper respiratory irritation with cough and shortness of breath.

MEDICAL CONSIDERATIONS

Persons with a history of skin sensitization problems should only be employed in processes in which this product is used under appropriate medical supervision.

CARCINOGENICITY

Not available for the mixture, however none of the components in concentrations of 0.1% or greater are listed as carcinogens according to OSHA, NTP, ACGIH or IARC.

SENSITIZATION

There is no data on the product itself. Contains epoxy constituents. May provoke an allergic reaction in susceptible individuals.

TOXIC TO REPRODUCTION

Not available for the mixture, however available information on the individual components does not indicate a reprotoxic hazard.

MUTAGENICITY

Not available for the mixture, however available information on the individual components does not indicate a mutagenic hazard.

DEVELOPMENTAL TOXICITY

Not available for the mixture, however available information on the individual components does not indicate a developmental hazard.

BELZONA® 4111 (MAGMA-QUARTZ) AGGREGATE**3 COMPOSITION/INFORMATION ON INGREDIENTS**

Name	EC No.	CAS-No.	Weight
SILICA, QUARTZ	238-878-4	14808-60-7	60-100%
GLASS OXIDE	Proprietary	Proprietary	10-30%

COMPOSITION COMMENTS

The glass oxide contained within this product is of spherical nature and not fibrous. The remaining constituents of this product are either considered to be non-hazardous or below the relevant concentration limits.

4 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 and drink plenty of water. Do NOT induce vomiting.

SKIN CONTACT

Remove contaminated clothing and shoes. 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.

5 FIRE-FIGHTING MEASURES**EXTINGUISHING MEDIA**

This material consists of principally inert, non-combustible components and therefore is not expected to contribute to a fire scenario. Use fire-extinguishing media appropriate for surrounding materials.

UNUSUAL FIRE & EXPLOSION HAZARDS**SENSITIVITY TO MECHANICAL IMPACT**

The product is not sensitive to mechanical impact or physical shock.

SENSITIVITY TO STATIC DISCHARGE

The product is not sensitive to static discharge.

AUTO IGNITION TEMPERATURE N/A
(°C)

FLAMMABILITY LIMIT - LOWER(%) N.ap

FLAMMABILITY LIMIT - UPPER(%) N.ap

FLASH POINT (°C) - Will not flash.

6 ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS**

Avoid breathing dust. Avoid contact with eyes, skin and clothing. Refer to protective measures listed in Section 8.

ENVIRONMENTAL PRECAUTIONS

Prevent the product from entering into soil, drains, sewers, ditches or waterways in large quantities.

SPILL CLEAN UP METHODS

Avoid creating dust. Collect spillages with an industrial vacuum cleaner or by careful brushing and place in a suitable container. Where necessary, damp down with water to prevent dusting.

7 HANDLING AND STORAGE**HANDLING****GENERAL**

Avoid handling which leads to dust formation. Prevent air-borne concentrations higher than the occupational exposure limits (see Section 8). Avoid the inhalation of dusts. Avoid contact with eyes, skin and clothing. 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.

BELZONA® 4111 (MAGMA-QUARTZ) AGGREGATE

STORAGE

Observe the label precautions. Store between 5°C and 30°C unless otherwise stated in a dry, well ventilated place. No smoking. Prevent unauthorized access. Store separately from oxidizing agents and strongly acidic materials.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	STD	TWA (8-hrs)	STEL (15 min)	TWA (8-hrs)	STEL (15 min)
GLASS OXIDE	SUP			5 mg/m3(c)	
SILICA, QUARTZ	ACGIH			0.05 mg/m3 resp.dust	
SILICA, QUARTZ	OSHA			See Remarks	
COMPONENT					IDLH
SILICA, QUARTZ					50 mg/m3

INGREDIENT COMMENTS

Remarks: See 29 CFR 1910.1000 Table Z-3 'Mineral dusts'. Consult local authorities for acceptable exposure limits. Those occupational exposure limits that are marked 'SUP' are assigned by the supplier of the substance. 'ACGIH' = Threshold Limit Value (TLV) set by ACGIH. 'OSHA' = Permissible Exposure Limit (PEL) set by OSHA. (CL) = Ceiling limit; the concentration that should not be exceeded during any part of the working exposure.

ENGINEERING MEASURES

Use in well ventilated areas or provide adequate mechanical ventilation.

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) multiplied by the Assigned Protection Factor (APF) quoted for the respiratory protective equipment selected.

STANDARD APPLICATIONS

Where the creation of dust cannot be avoided or controlled by suitable engineering methods it is recommended that an OSHA/NIOSH approved air-purifying half-face respirator equipped with appropriate particulate prefilter (N-, R- or, P-series) should be worn. It is essential that the facepiece is correctly fitted and the filter is changed in accordance with the manufacturer's instructions.

EMERGENCY SITUATIONS

Where entry into unknown or immediately Dangerous To Life or Health (IDLH) atmospheres is required, an OSHA/NIOSH approved pressure-demand self-contained breathing apparatus (SCBA) with a full facepiece or a pressure-demand supplied-air respirator (SAR) with a full facepiece in combination with an auxiliary pressure-demand SCBA respirator should be worn.

HAND PROTECTION

GENERAL GUIDANCE ON HAND PROTECTION

Where doubt exists, advice should be sought from manufacturers or vendors of protective gloves in order to determine appropriate types for the particular circumstances.

SPECIFIC RECOMMENDATIONS

Use protective gloves made of: Neoprene. Nitrile.

STANDARD APPLICATIONS

Light weight disposable gloves are normally suitable. When mixing this product prior to use with the Base and Solidifier components, use gloves specified for the use of those components.

EMERGENCY SITUATIONS

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

EYE PROTECTION

STANDARD APPLICATIONS

It is recommended that eye protection, for example safety glasses with side shields or goggles are worn at all times during the handling and use of this material.

EMERGENCY SITUATIONS

Refer to 'Respiratory Equipment' above.

OTHER PROTECTION

STANDARD APPLICATIONS / EMERGENCY SITUATIONS

Cotton or cotton/synthetic overalls or coveralls are normally suitable. When mixing this product prior to use with the Base and Solidifier components, use protective clothing specified for the use of those components.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Do not put contaminated articles or equipment e.g. spatulas, applicators, brushes, cloths etc., into pockets. Ensure eye wash facilities (fountain, bottle, vials, etc.) are readily available. 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.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Partially damped powder.
COLOR	Light gray. Beige.

BELZONA® 4111 (MAGMA-QUARTZ) AGGREGATE

ODOR	Odorless or no characteristic odor.		
PHYSICAL DATA COMMENTS	This section contains typical values for Health, Safety and Environmental guidance only and is not intended to represent a technical specification for the product. *Although this product has been partially damped, during use or in the event of a spillage, it may give rise to dust.		
SOLUBILITY	Insoluble in water		
BOILING POINT (°C)	N.ap	MELTING POINT (°C)	>700 (1292°F)
RELATIVE DENSITY	2.55 - 2.65 @ 20°C (68°F)	PARTICLE SIZE (Micron)	*
VAPOUR DENSITY (air=1)	>1	VAPOUR PRESSURE	<0.1 kPa @ 20°C (68°F)
EVAPORATION RATE	N.ap	pH-VALUE, CONC. SOLUTION	N.ap
VISCOSITY	N.ap	DECOMPOSITION TEMPERATURE (°C)	NIA
ODOR THRESHOLD, LOWER	NIA	FLASH POINT (°C)	- Will not flash.
PARTITION COEFFICIENT (N-Octanol/Water)	NIA	VOLATILE ORGANIC CONTENT	0 g/litre

10 STABILITY AND REACTIVITY**STABILITY**

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

11 TOXICOLOGICAL INFORMATION**TOXICOLOGICAL INFORMATION**

There is no data on the product itself.

12 ECOLOGICAL INFORMATION**ECOTOXICITY**

There is no data on the product itself. This product is not expected to present an environmental hazard under current legislation. The product should not be allowed to enter soil, drains, sewers, ditches and waterways or be deposited where it can affect ground or surface waters. See also Sections 5, 6, 7, 9 and 13.

13 DISPOSAL CONSIDERATIONS**DISPOSAL METHODS****GENERAL**

Do NOT dump into any sewers, on the ground, or into any body of water. The product as shipped in its intended condition does not exhibit any of the 'Characteristics' of hazardous waste as defined in 40 CFR 261.20-24. Disposal must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations are the responsibility solely of the waste generator.

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:** empty uncleaned containers and contaminated packaging should be disposed of as non-hazardous solid waste. **REACTED PRODUCT:** that has been mixed and cured in accordance with the relevant 'Instructions For Use' will form an inert filled polymeric compound that may be able to be disposed of as non-hazardous solid waste. Refer to your local licensed, permitted waste agent or facility.

14 TRANSPORT INFORMATION**TRANSPORT NOTES**

Non-regulated for transport under current Domestic, or International Air and Sea 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.

15 REGULATORY INFORMATION**SARA (311/312) HAZARD CATEGORIES**

None

BELZONA® 4111 (MAGMA-QUARTZ) AGGREGATE

REGULATORY STATUS (US)

This product is NOT considered "Hazardous" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

U.S California Safe Drinking Water & Toxic Enforcement Act (Proposition 65): To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Toxic Substance Control Act (TSCA): All constituents of this product are included on the Inventory or are not required to be listed.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS

LABEL(S) FOR SUPPLY

Not Classified
According to
WHMIS.

CONTROLLED PRODUCT CLASSIFICATION

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION 33).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canadian WHMIS Classification

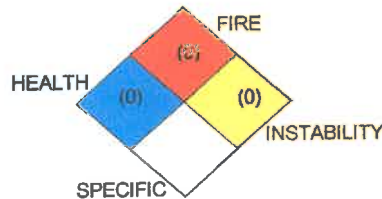
This product is not a 'Controlled Product' under WHMIS.

REGULATORY STATUS (CANADA)

Domestic Substances List (DSL) & Non-Domestic Substances List (NDSL): All constituents of this product are present on the DSL or are not required to be listed.

16 OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



GENERAL INFORMATION

Throughout this Material Safety Data Sheet; NIA = No Information Available; N.ap = Not applicable.

REVISION COMMENTS

REVISION. This material safety data sheet has been revised in the following Section(s): All Sections. Replaces all previous versions.

Please observe the REVISION DATE. Should you be reading a material safety data sheet that is more than 24 months old or have concerns over its validity, please contact your local Belzona Distributor or Belzona direct (belzona@belzona.com) and the most current information will be sent to you.

REVISION DATE 10/05-2006

VERSION No. 1.0

SAFETY DATA SHEET STATUS

English (North American). Approved.

DISCLAIMER

To the best of our knowledge, the information contained herein is accurate. However, some of the information presented and conclusions drawn are derived from sources other than direct test data on the product itself and while Belzona Inc. believes such sources to be reliable, the information is provided without any warranty regarding its correctness. Since Belzona Inc. has no control over the conditions under which the product will be used, liability will not be assumed to exceed replacement or refund of the purchase price of this product. Except as stated herein, there are no express or implied warranties including implied warranties of merchantability or fitness for a particular purpose. Belzona Inc. assumes no liability for injury or incidental or consequential damage arising out of the storage, handling, use or, disposal of this product.