MATERIAL SAFETY DATA SHEET
In compliance with OSHA 29 CFR 1910.1200
N.ap means Not Applicable NIA means No Information Available

PREPARED BY : W.FAUPEL DATE PREPARED : 30 MAY 1997

BELZONA INC., 2000 N.W. 88 COURT, MIAMI, FL 33172	EMERGENCY PHONE NUMBERS (Spill, Leak, Fire, Exposure or Accident) 800 424 9300 - Toll free in United States 202 483 7616 - For calls from outside the United States INFORMATION PHONE NUMBER 305 594 4994 - Working hours only

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER : 3307/1311
PRODUCT NAME : Belzona® 4221 (Magma-Seal) Liquid
PRODUCT CLASS : Styrene acrylic emulsion

SECTION II - HAZARDOUS INGREDIENTS/TOXICOLOGICAL DATA

Hazardous Components	% by Weight	CAS Number	Exposure Limits OSHA PEL mg/m^3	Exposure Limits ACGIH TLV ppm	Exposure Limits ACGIH TLV mg/m^3	Toxicity LD_{50} Oral mg/Kg	Toxicity LD_{50} Dermal mg/Kg	Toxicity LC_{50} Inhal ppm

Non-Hazardous Material According to the Classification Criteria of OSHA Hazard Communications Standard 29 CFR 1910.1200

CARCINOGENICITY
No data is available for the mixture, however, none of the ingredients are listed as carcinogens by OSHA, NTP, ACGIH or IARC.

SECTION III - PHYSICAL DATA

APPEARANCE AND ODOR : White liquid with latex odor.
BOILING POINT : 100°C
VAPOR PRESSURE : 17.6 mmHg @ 20°C
EVAPORATION RATE : N.ap
SOLUBILITY IN WATER : Miscible
SPECIFIC GRAVITY : 1.08
VAPOR DENSITY : NIA
% VOLATILE BY VOLUME : N.ap

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT : N.ap
TEST METHOD : N.ap
EXPLOSION LIMITS LOWER : NIA
UPPER : NIA

OSHA FLAMMABILITY CLASS : N.ap
FLAMMABILITY INDEX (NFPA) : 0 Minimal
REACTIVITY INDEX (NFPA) : 0 Minimal
HEALTH HAZARD (NFPA) : 1 Slight
EXTINGUISHING MEDIA : N.ap

SPECIAL FIRE FIGHTING PROCEDURES

Not flammable but if involved in a fire this product may contribute to the combustible material. Wear protective clothing and use self-contained breathing apparatus to protect against any toxic fumes evolved. Full bunker gear should be worn in extreme cases. Use sand to contain burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Decomposition and combustion products may be hazardous.

SECTION V - HEALTH HAZARDS

ROUTE(S) OF ENTRY : Skin contact and eye contact, inhalation.
PRIME HAZARD(S) : Not applicable.

EFFECTS OF EXPOSURE

Acute : No acute effects known.
Chronic : May cause irritation and/or dermatitis.

EMERGENCY AND FIRST AID PROCEDURES

Inhalation : Remove to fresh air.

Eye contact : Flush eyes with water for 15 minutes. Seek medical advice if any irritation persists.

Skin contact : Immediately remove excess with a clean cloth and wash skin thoroughly with soap and water. If irritation or inflammation persists, seek medical advice.

Ingestion : If swallowed, do not induce vomiting. Rinse mouth with water and drink plenty of water. Call TAMPA BAY Regional Poison Center (Tel.No.1-800-282-3171) and/or seek medical advice.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Skin and eye conditions.

SECTION VI - REACTIVITY DATA

STABILITY : Stable
STABILITY CONDITIONS TO AVOID : N.ap

INCOMPATIBILITY (MATERIALS TO AVOID CONTACT WITH)

May coagulate or flocculate if mixed with highly ionic solutions or organic solvents.

HAZARDOUS DECOMPOSITION PRODUCTS

Gaseous combinations of carbon, hydrogen, nitrogen and oxygen may occur at elevated temperatures.

HAZARDOUS POLYMERIZATION
Hazardous polymerization will not occur when stored and used as directed.

POLYMERIZATION CONDITIONS TO AVOID
N.ap

SECTION VII - SPILL AND LEAK PROCEDURES

SPILLAGE
Absorb with an inert material (e.g. earth or sand). Sweep up, place into suitable labelled containers, seal and dispose of properly. Flush area with detergent and water.

WASTE DISPOSAL METHODS
Dispose of in accordance with Local, State and Federal Regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

PERSONAL PROTECTIVE MEASURES
RESPIRATORY : Not normally necessary.

SKIN : Impermeable gloves, such as Neoprene or Nitrile. Wash hands with soap and water and use hand cream. Suitable protective clothing to minimize skin contact. Remove contaminated clothing and wash before reuse.

EYE : Safety glasses or goggles. Eyewash station.

MECHANICAL PROTECTIVE MEASURES
VENTILATION : Where adequate natural ventilation is not available provide suitable local exhaust ventilation.

OTHER PROTECTIVE EQUIPMENT
: Where there is a risk of contamination of footwear, safety boots should be worn and cleaned thoroughly before reuse.

OTHER COMMENTS
: Where abrading of cured material leads to the production of respirable and/or nuisance dust, an appropriate NIOSH or MSHA approved respirator should be worn.

SECTION IX - SAFE HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS
HANDLING
Avoid contact with skin and eyes.

STORAGE

Overheating may cause containers to rupture. Containers should be stored under cool, dry conditions. Empty containers will retain residue and may be dangerous. Check all containers for leaks at regular intervals and before use.

SECTION X - REGULATORY INFORMATION

HYGIENE PRACTICES

When using, do not eat, drink or smoke. Remove contaminated clothing and launder before reuse. Wash hands with soap and water after handling this product.

SARA TITLE III - NOTIFICATION OF TOXIC CHEMICALS

None of the constituents of this product are subject to reporting requirements under section 313 of the Superfund Amendment and Reauthorization Act of 1986 (40 CFR Part 372).

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. believe 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.

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SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER : 3207/1309-1310
PRODUCT NAME : Belzona® 4221 (Magma-Seal) Powder (White/Gray)
PRODUCT CLASS : Reactive Aggregate

SECTION II - HAZARDOUS INGREDIENTS/TOXICOLOGICAL DATA

Hazardous Components	% by Weight	CAS Number	Exposure Limits OSHA PEL mg/m^3	ACGIH TLV ppm	ACGIH TLV mg/m^3	Toxicity LD_{50} Oral mg/Kg	LD_{50} Dermal mg/Kg	LC_{50} Inhal ppm
Silicates	30-60	65997-15-1	3	N.ap	10	NIA	NIA	NIA
Calcium oxide	1-5	1305-78-8	5	N.ap	2	NIA	NIA	NIA
Silica crystalline quartz	30-60	14808-60-7	0.1	N.ap	0.1	5000	2000	NIA

CARCINOGENICITY
No data is available for the mixture. However, crystalline (respirable) silica has been identified by ACGIH as a suspected human carcinogen arising from inhalation of dust.

SECTION III - PHYSICAL DATA

APPEARANCE AND ODOR : White/Gray powder with little or no odor
BOILING POINT : N.ap
VAPOR PRESSURE : N.ap
EVAPORATION RATE : N.ap
SOLUBILITY IN WATER : Insoluble
SPECIFIC GRAVITY : 2.88
VAPOR DENSITY : N.ap
% VOLATILE BY VOLUME : N.ap

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT : N.ap
TEST METHOD : N.ap
EXPLOSION LIMITS LOWER : NIA
UPPER : NIA

OSHA FLAMMABILITY CLASS : N.ap
FLAMMABILITY INDEX (NFPA) : 0 Nil
REACTIVITY INDEX (NFPA) : 0 Nil
HEALTH HAZARD (NFPA) : 2 Moderate
EXTINGUISHING MEDIA : N.ap

SPECIAL FIRE FIGHTING PROCEDURES
Not flammable. If involved in a fire this product will not contribute to the combustible material. However, special fire-fighting procedures may be required for the other materials involved.

UNUSUAL FIRE AND EXPLOSION HAZARDS
N.ap.

SECTION V - HEALTH HAZARDS

ROUTE(S) OF ENTRY : Skin contact and inhalation.
PRIME HAZARD(S) : Irritation.

EFFECTS OF EXPOSURE
Acute : Irritating to skin, eyes and respiratory system.
Chronic : May cause sensitization, dermatitis and chemical asthma.

EMERGENCY AND FIRST AID PROCEDURES
Inhalation : If symptoms are experienced, move victim to fresh air. If recovery is delayed or there are signs of distress obtain medical attention immediately.

Eye contact : Flush eyes with water until free of contamination. Seek medical advice if any irritation persists.

Skin contact : Wash skin thoroughly with soap and water and apply hand cream. If irritation or inflammation persists, seek medical advice.

Ingestion : If swallowed, do not induce vomiting. Rinse mouth with water and drink plenty of water. Call TAMPA BAY Regional Poison Center (Tel.No.1-800-282-3171) and/or seek medical advice.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Skin, eye and respiratory conditions.

SECTION VI - REACTIVITY DATA

STABILITY : Stable
STABILITY CONDITIONS TO AVOID : N.ap

INCOMPATIBILITY (MATERIALS TO AVOID CONTACT WITH)
Water and strong mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS
N.ap

HAZARDOUS POLYMERIZATION
N.ap

POLYMERIZATION CONDITIONS TO AVOID
N.ap

SECTION VII - SPILL AND LEAK PROCEDURES

SPILLAGE
Sweep up, place into suitable labelled containers, seal and dispose of properly.

WASTE DISPOSAL METHODS
Dispose of in accordance with Local, State and Federal Regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

PERSONAL PROTECTIVE MEASURES

RESPIRATORY : Dust respirator.

SKIN : Impermeable gloves, such as Neoprene, Nitrile or PVC. Wash hands with soap and water and use hand cream. Suitable protective clothing to minimize skin contact. Remove contaminated clothing and wash before reuse.

EYE : Safety glasses or goggles. Eyewash station.

MECHANICAL PROTECTIVE MEASURES

VENTILATION : Adequate exhaust ventilation should be provided especially if there is a danger of creating dust clouds.

OTHER PROTECTIVE EQUIPMENT
: Not applicable.

OTHER COMMENTS
: Where removing or abrading the product leads to the production of respirable and/or nuisance dust, an appropriate NIOSH or MSHA approved respirator should be worn.

SECTION IX - SAFE HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS
HANDLING
Avoid contact with skin and eyes.

STORAGE
Containers should be stored under dry conditions.

HYGIENE PRACTICES

Avoid creating dust clouds when using this material. When using, do not eat or drink. Remove contaminated clothing and launder before reuse. Wash hands with soap and water after handling this product.

SECTION X - REGULATORY INFORMATION

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