

SAFETY DATA SHEET



Date Prepared : 2/14/2007
MSDS No : 49
Date Revised : 2/10/2015
Revision No : 2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: Bonstone Fast-Set Epoxy, Part A (includes Fast Set Extreme, Fast Set 39, Fast Set 41)

MANUFACTURER

Bonstone Materials Corporation
 707 Swan Drive
 Mukwonago, WI 53149
Emergency Contact: Mike Beckmann
Emergency Phone: 262-363-9877
E-Mail: info@bonstone.com

24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Irritation, Category 2
 Skin Sensitization, Category 1

GHS LABEL



Exclamation
 mark

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H312: Harmful in contact with skin.
 H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H412: Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P101: If medical advice is needed, have product container or label at hand.
 P102: Keep out of reach of children.
 P103: Read label before use.
 P264: Wash hands thoroughly after handling.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P270: Do not eat, drink or smoke when using this product.

- P271: Use only outdoors or in a well-ventilated area.
 P273: Avoid release to the environment.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- P321: Specific treatment (see ... on this label).
 P362: Take off contaminated clothing and wash before reuse.
 P363: Wash contaminated clothing before reuse.
 P391: Collect spillage.
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P370+P378: In case of fire: Use CO₂, powder, or water spray for extinction.
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

Storage:

- P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:

- P501: Dispose of contents/container in accordance with all local/regional/national/international regulations.

POTENTIAL HEALTH EFFECTS

EYES: Severely irritating. If not removed promptly, will injure eye tissue, which may result in permanent damage.

SKIN: May cause skin irritation. Allergic reactions are possible.

SKIN ABSORPTION: May be absorbed through the skin in harmful amounts.

INGESTION: This material may be harmful or fatal if swallowed.

INHALATION: Low hazard for usual industrial or commercial handling.

SENSITIZATION: May cause skin sensitization, an allergic reaction which becomes evident on exposure to this material.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Bisphenol A/epichlorohydrin Resin	Trade secret	25068-38-6
Epoxy Phenol Novolac Resin	Trade secret	28064-14-4
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	Trade secret	17557-23-2
Calcium Carbonate	Trade secret	471-34-1
Titanium Dioxide	Trade secret	13463-67-7
Polydimethylsiloxane, Silica Adduct	Trade secret	67762-90-7
Rheological additive	Trade secret	

4. FIRST AID MEASURES

EYES: Flush eye with water for 15 minutes. Get medical attention.

SKIN: Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

FIRE FIGHTING PROCEDURES: Use alcohol foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material. Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear and self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use.

FIRE FIGHTING EQUIPMENT: Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear and self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Absorb the liquid and scrub the area with detergent and water.

RELEASE NOTES: Notify authorities if any exposures to the general public or environment occurs or is likely to occur.

SPECIAL PROTECTIVE EQUIPMENT: Remove contaminated clothing and wash before reuse.

COMMENTS: If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste container. Transfer to containers by suction, preparatory for later disposal. Place in metal containers for recovery or disposal. Flush area with water spray. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin, and clothing.

HANDLING: Wash hands before eating and wash before reuse.

STORAGE: Store in a tightly closed container.

COMMENTS: Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Calcium Carbonate	TWA	15		10			
Titanium Dioxide	TWA	NL ^[1]	10 ^[1]	NL	10	NL	NL
	STEL	NL	NL	NL	NL	NL	NL
Polydimethylsiloxane, Silica Adduct	TWA						10 mg/m ³
Footnotes:							
1. NL = Not Listed							

ENGINEERING CONTROLS: Use only in a well ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid

contact, wear splash-proof goggles.

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

WORK HYGIENIC PRACTICES: Provide readily accessible eyewash stations and safety showers. Wash at the end of each work shift and before eating, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

COMMENTS: Avoid breathing any (dust, vapor, mist, gas) that may be generated when grinding cured material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Boiling Point (°C)	Freezing Point (°C)	Solubility in Water	Specific Gravity
Bisphenol A/epichlorohydrin Resin	480			Negligible	1.17
Epoxy Phenol Novolac Resin	425			None	1.18
Calcium Carbonate				Negligible	2.71
Titanium Dioxide			1000		4
Polydimethylsiloxane, Silica Adduct	600	2230	1700		1.8

PHYSICAL STATE: Semi-Gel

COLOR: Various

PERCENT VOLATILE: 0

FLAMMABLE LIMITS: 0 to 0

SOLUBILITY IN WATER: Negligible

SPECIFIC GRAVITY: 1.546

(VOC): = 0 (no VOC's)

10. STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases---especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat. Runaway cure actions may char and decompose the resin system, generating unidentified fumes and vapors which may be toxic.

HAZARDOUS DECOMPOSITION PRODUCTS: The bi-products expected in incomplete pyrolysis or combustion of epoxy resins are mainly phenolics, carbon monoxide and water. The thermal decomposition products of epoxy resins therefore should be treated as potentially hazardous substances, and appropriate precautions should be taken.

INCOMPATIBLE MATERIALS: Strong bases, strong oxidizing agents, heat, open flame, amines, direct contact with water.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)
Bisphenol A/epichlorohydrin Resin	11.4 g/kg (rat)	> 20 ml/kg (rabbit)
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	8870 mg/kg (rat)	2150 mg/kg (rabbit)
Titanium Dioxide	> 7500 mg/kg (rat)	
Polydimethylsiloxane, Silica Adduct	> 5000 mg/kg (rat)	

CARCINOGENICITY

Notes: A two-year dermal study in mice produced skin tumors at greater than 1.87 mg neopentylglycoldiglycidylether per mouse per week. (Holland, 1981).

COMMENTS: Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects. Results of immunogenicity tests in animals have been negative. Has been shown to be negative in some in- vitro immunogenicity tests and positive in others.

12. ECOLOGICAL INFORMATION

COMMENTS: No information.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements be be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

OTHER SHIPPING INFORMATION: Not regulated by DOT

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

313 REPORTABLE INGREDIENTS: Not considered a SARA 313 "Toxic Chemical".

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Bisphenol A/epichlorohydrin Resin	25068-38-6
Polydimethylsiloxane, Silica Adduct	67762-90-7

TSCA STATUS: All ingredients in this mixture are in compliance with TSCA.

STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	NJ: New Jersey Right-to-Know: The following is required compositional information: Chemical Name: OXIRANE, 2-2'-[2,2-DIMETHYL-1,3-PROPANEDIYL]BIS(OXYMETHYLENE)]BIS- CAS Number: 17557-23-2 PA: Pennsylvania Right-to-Know: The following is required compositional information: Chemical Name: OXIRANE, 2-2'-[2,2-DIMETHYL-1,3-PROPANEDIYL]BIS(OXYMETHYLENE)]BIS- CAS Number: 17557-23-2 Comment: Not on Pennsylvania Hazardous Substance List
Titanium Dioxide	MA, NJ, PA, RI: TiO ₂ is on the Right-to-Know list for these states.

CALIFORNIA PROPOSITION 65

Chemical Name	Wt. %	Listed
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	Trade secret	Cancer

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This product and/or all of its components is/are listed on the TSCA Inventory.

16. OTHER INFORMATION

REASON FOR ISSUE: New MSDS format

APPROVED BY: Mike Beckmann **TITLE:** President

Date Revised: 2/10/2015

INFORMATION CONTACT: Mike Beckmann

REVISION SUMMARY: This SDS replaces the 1/31/2008 SDS. Revised: **Section 1:** PRODUCT CODE, REASON FOR ISSUE. **Section 2:** . **Section 9:** APPEARANCE, BOILING POINT, COLOR.

MANUFACTURER DISCLAIMER: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or any process, unless specified in the text.

SAFETY DATA SHEET



Date Prepared : 11/09/2015

MSDS No : 255

Date Revised : 12/30/2015

Revision No : 2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: Fast Set Hardener Part B

PRODUCT FORMULATION NAME: Fast Set Hardener Part B

MANUFACTURER

Bonstone Materials Corporation

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Emergency Contact: Mike Beckmann

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24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Serious Eye Damage, Category 1

Skin Sensitization, Category 1

Acute Toxicity (Dermal), Category 4

Acute Toxicity (Inhalation), Category 4

Acute Toxicity (Oral), Category 4

Germ Cell Mutagenicity, Category 2

Eye Irritation, Category 2

Skin Irritation, Category 2

Target Organ Toxicity (Single exposure), Category 2

Environmental:

Chronic Hazards to the Aquatic Environment, Category 3

GHS LABEL



Exclamation
mark



Health
hazard

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H320: Causes eye irritation.

H312 + H332: Harmful in contact with skin or if inhaled.

H341: Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H373: May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H412: Harmful to aquatic life with long lasting effects.

H319: Causes serious eye irritation.

PRECAUTIONARY STATEMENTS

Prevention:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P281: Use personal protective equipment as required.

Response:

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P301+P312: IF SWALLOWED: Call a POISON CENTER/ doctor/...if you feel unwell.

P314: Get medical advice/attention if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of water/...

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P313: IF exposed or concerned: Get medical advice/ attention.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents/container in accordance with all local/regional/national/international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Benzene-1,3-dimethanamine (MXDA)	Trade secret	1477-55-0
Phenol	Trade secret	108-95-2
Polymercaptan resin	Trade secret	
2,4,6-Tri(dimethylaminomethyl)phenol	Trade secret	90-72-2
Nepheline Syenite	Trade secret	37244-96-5
Silica, Amorphous, Fumed	Trade secret	112945-52-5
Rheological additive	Trade secret	

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash or discard clothing and shoes before reuse.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

NOTES TO PHYSICIAN: Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

FIRE FIGHTING PROCEDURES: Use alcohol foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material. Firefighters and others who may be exposed to products of combustion should wear full firefighting turnout gear and self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Contain spill with dike to prevent entry into sewers.

RELEASE NOTES: Notify authorities if any exposures to the general public or environment occurs or is likely to occur.

SPECIAL PROTECTIVE EQUIPMENT: Remove contaminated clothing and wash before reuse.

COMMENTS: If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste container. Transfer to containers by suction, preparatory for later disposal. Place in metal containers for recovery or disposal. Flush area with water spray. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin, and clothing.

HANDLING: Keep container closed when not in use.

COMMENTS: Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
EXPOSURE LIMITS				
Chemical Name	Type		ppm	mg/m ³
Phenol	OSHA PEL	TWA	5 ppm ^[1]	19 mg/m ³ ^[1]
		STEL	NL ppm	NL mg/m ³
	ACGIH TLV	TWA	5 ppm ^[1]	19 mg/m ³ ^[1]
		STEL	NL ppm	NL mg/m ³
	Supplier OEL	TWA	NL ppm	NL mg/m ³
		STEL	NL ppm	NL mg/m ³
Silica, Amorphous, Fumed	ACGIH TLV	TWA	[2]	10 mg/m ³ ^[2]
Footnotes:				
1. S = Skin				
2. (Total dust, containing less than 1% quartz)				

ENGINEERING CONTROLS: Use only in a well ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

SKIN: Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

WORK HYGIENIC PRACTICES: Provide readily accessible eyewash stations and safety showers. Wash at the end of each work shift and before eating, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

COMMENTS: Avoid breathing any (dust, vapor, mist, gas) that may be generated when grinding cured material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Boiling Point (°C)	Freezing Point (°C)	Solubility in Water	Specific Gravity
Polymercaptan resin	252 PMCC	260			1.15
2,4,6-Tri(dimethylaminomethyl)phenol	315			Soluble	0.98
Silica, Amorphous, Fumed		2230	1600	Negligible	2.2

FLAMMABLE LIMITS: 0 to 0

VAPOR PRESSURE: 10.971

VAPOR DENSITY: 10.971

BOILING POINT: to (500°F)

SPECIFIC GRAVITY: 1.342

(VOC): = 0 (no VOC's)

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: None Expected.

HAZARDOUS DECOMPOSITION PRODUCTS: Gases may be poisonous.

INCOMPATIBLE MATERIALS: Epoxy resins under uncontrolled conditions.

COMMENTS: Can react strongly with epoxy resins at elevated temperatures.

11. TOXICOLOGICAL INFORMATION**ACUTE TOXICITY**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Phenol	≥ 317 mg/kg (rat)	≥ 850 mg/kg (rabbit)	≥ 0.316 mg/l (rat)
2,4,6-Tri(dimethylaminomethyl)phenol	> 1000 mg/kg (rat)	880 mg/kg (rabbit)	
Silica, Amorphous, Fumed	3160 mg/kg (rat)		

CARCINOGENICITY

Chemical Name	IARC Status
Silica, Amorphous, Fumed	Group 3

12. ECOLOGICAL INFORMATION

COMMENTS: No information.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION

COMMENTS: Not regulated by DOT

15. REGULATORY INFORMATION**UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****EPCRA SECTION 313 SUPPLIER NOTIFICATION**

Chemical Name	Wt. %	CAS
Phenol	Trade secret	108-95-2

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Phenol	108-95-2
Polymercaptan resin	

TSCA STATUS: This product and/or all of its components is/are listed on the TSCA Inventory.

16. OTHER INFORMATION

REASON FOR ISSUE: New formula

APPROVED BY: Mike Beckmann **TITLE:** President

Date Revised: 12/30/2015

INFORMATION CONTACT: Mike Beckmann

REVISION SUMMARY: This SDS replaces the 12/18/2015 SDS. Revised: **Section 14:** COMMENTS.

MANUFACTURER DISCLAIMER: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or any process, unless specified in the text.