

MATERIAL SAFETY DATA SHEET



Bonstone Materials Corporation

Date Issued: 02/05/2007
 MSDS No: 21
 Date Revised: 02/06/2008
 Revision No: 1

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: Touchstone Clear Gel Epoxy, Part A
PRODUCT CODE: Touchstone Clear Gel Epoxy, Part A

MANUFACTURER

Bonstone Materials Corporation
 707 Swan Drive
 Mukwonago WI 53149
Emergency Contact: Mike Beckmann
Product Stewardship: 262-363-9877

24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

- EYES:** Moderately irritating to the eyes.
- SKIN:** Causes skin irritation. Allergic reactions are possible.
- INGESTION:** This material may be harmful or fatal if swallowed.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

INHALATION: Prolonged or excessive inhalation may cause respiratory tract irritation.

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	EINECS
Bisphenol A/epichlorohydrin Resin	Trade secret	025068-38-6	--
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	Trade secret	017557-23-2	241-536-7
Silica, Amorphous, Fumed	Trade secret	112945-52-5	--

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.

5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: 0 to 0

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	
		ACGIH TLV	
Chemical Name		ppm	mg/m ³
Silica, Amorphous, Fumed	TWA	[1]	10 mg/m ³ [1]
Footnotes:			
1. (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.

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	Boiling Point (°C)	Freezing Point (°C)	Solubility in Water	Specific Gravity
Bisphenol A/epichlorohydrin Resin	480			Negligible	1.17
Silica, Amorphous, Fumed		2230	1600	Negligible	2.2

PHYSICAL STATE: Semisolid

APPEARANCE: Clear gel.

BOILING POINT: to (500°F)

SPECIFIC GRAVITY: 1.175

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

10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: Will not occur under normal conditions.

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 byproducts 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.

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)
Silica, Amorphous, Fumed	3160 mg/kg (rat)	

CARCINOGENICITY

Chemical Name	IARC Status
Silica, Amorphous, Fumed	Group 3

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	025068-38-6

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	<p>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</p> <p>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</p> <p>Comment: Not on Pennsylvania Hazardous Substance List</p>

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 it's components is/are listed on the TSCA Inventory.**16. OTHER INFORMATION****REASON FOR ISSUE:** VOC content**APPROVED BY:** Mike Beckmann **TITLE:** President

INFORMATION CONTACT: Mike Beckmann

REVISION SUMMARY: Revision #: 1 This MSDS replaces the February 05, 2007 MSDS. Any changes in information are as follows: In Section 1 Reason for Issue In Section 9 VOC (Unit)

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.

MATERIAL SAFETY DATA SHEET



Bonstone Materials Corporation

Date Issued: 01/21/2010

MSDS No: 157

Revision No: New MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: Clear Gel Curing Agent (Part "B")

MANUFACTURER

Bonstone Materials Corporation
707 Swan Drive
Mukwonago WI 53149
Emergency Contact: Mike Beckmann
Product Stewardship: 262-363-9877

24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Dermal contact is expected to be the primary route of occupational exposure to nonyl phenol. Nonyl phenol is considered to be severely irritating to the eyes and skin. On the basis of available information, nonyl phenol is not expected to produce significant adverse human health effects when safety precautions recommended to minimize exposure are followed.

POTENTIAL HEALTH EFFECTS

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

SKIN: Severely irritating to the skin.

SKIN ABSORPTION: May be fatal if absorbed through skin.

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

INHALATION: Prolonged or repeated inhalation may cause lung damage and/or central nervous system disturbances.

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	EINECS
Nonylphenol	Trade secret	025154-52-3	246-672-0
Teta, reaction product with propylene oxide	Trade secret	26950-63-0	
3,6-diazaoctanethylenediamine	Trade secret	000112-24-3	203-950-6
2-piperazin-1-ylethylamine	Trade secret	000140-31-8	205-411-0
Silica, Amorphous, Fumed	Trade secret	112945-52-5	- -

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: 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.

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

FLAMMABLE LIMITS: 0 to 0

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

EXPLOSION HAZARDS: None known. Treat as combustible.

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 EXPLOSION: None known. Treat as combustible.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including ignitable vapors, have been removed thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

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.

STORAGE: Store in a cool dry place.

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	
		ACGIH TLV	
Chemical Name		ppm	mg/m ³
Silica, Amorphous, Fumed	TWA	[1]	10 mg/m ³ [1]
Footnotes:			
1. (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: Wash thoroughly after handling.

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	Boiling Point (°C)	Freezing Point (°C)	Solubility in Water	Specific Gravity
3,6-diazaoctanethylenediamine	200				1.02
2-piperazin-1-ylethylamine				Soluble	0.987
Silica, Amorphous, Fumed		2230	1600	Negligible	2.2

PHYSICAL STATE: Semisolid

ODOR: Amine

APPEARANCE: Clear gel.

BOILING POINT: to (410°F)

SPECIFIC GRAVITY: 1.037

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

10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: Will not occur under normal conditions.

CONDITIONS TO AVOID: Strong oxidizers and reducers.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning in a limited air supply.

INCOMPATIBLE MATERIALS: Epoxy resins under uncontrolled conditions.

11. TOXICOLOGICAL INFORMATION**ACUTE**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)
Teta, reaction product with propylene oxide	> 1000 mg/kg	> 1000 mg/kg
3,6-diazaoctanethylenediamine	> 1000 mg/kg	> 1000 mg/kg
2-piperazin-1-ylethylamine	2150 mg/kg (rat)	1000 mg/kg
Silica, Amorphous, Fumed	3160 mg/kg (rat)	

EYE EFFECTS: Severe irritant. Causes eye irritation, burn.
Rabbit: Draize; 100mg dose; severe irritant.

SKIN EFFECTS: Severe irritant. Causes skin irritation, sensitization, or burn.
Rabbit: Dermal LD50; 2140mg/kg.
Rabbit: Draize; 500mg/24hr; severe irritant.

CARCINOGENICITY

Chemical Name	IARC Status
Silica, Amorphous, Fumed	Group 3

12. ECOLOGICAL INFORMATION

BIOACCUMULATION/ACCUMULATION: The bioconcentration potential of two nonyl phenol samples in juvenile Atlantic salmon was measured over 4-Day periods. One sample was reported to have a bioconcentration factor of 10 with an excretion half-life of 0.3 days. The second sample was determined to have a bioconcentration factor of 280 with an excretion half-life of four days.

GENERAL COMMENTS: Component: Nonyl Phenol:
48 hour EC50 Daphnia Magna: 0.44mg/l, highly toxic
96 hour LC50 fathead minnow: 0.3 mg/l, highly toxic
96 hour TL50 freshwater clam: 5.0 mg/l
96 hour LC50 lobster: 0.2mg/l
15-day LC50 soft-shelled clam: greater than 1.0 mg/l

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

COMMENTS: Not regulated by DOT

15. REGULATORY INFORMATION**UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

311/312 HAZARD CATEGORIES: Immediate health hazard, delayed health hazard.

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

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
2-piperazin-1-ylethylamine	000140-31-8

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

16. OTHER INFORMATION

REASON FOR ISSUE: New MSDS format

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

INFORMATION CONTACT: Mike Beckmann

REVISION SUMMARY: New MSDS

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