

MATERIAL SAFETY DATA SHEET**Bonstone Materials Corporation**

Date Issued: 02/05/2007

MSDS No: 22

Date Revised: 04/16/2008

Revision No: 1

1. PRODUCT AND COMPANY IDENTIFICATION**PRODUCT CODE:** Touchstone T2000 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.**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	- -
Nepheline Syenite	Trade secret	37244-96-5	
Talc	Trade secret	014807-96-6	- -
Nonylphenol	Trade secret	025154-52-3	246-672-0
2,2,4-trimethyl-1,3-pentanediol Monoisobutyrate	Trade secret	025265-77-4	- -

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**

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
Talc	TWA		2 mg/m ³

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)	Auto Ignition (°C)	Solubility in Water	Specific Gravity
Bisphenol A/epichlorohydrin Resin	480				Negligible	1.17
2,2,4-trimethyl-1,3-pentanediol Monoisobutyrate	248	260	-50	393	Slightly soluble (less than 5%)	0.95

PHYSICAL STATE: Semisolid

APPEARANCE: Grayish, semi-solid, near-gel material

COLOR: Gray

BOILING POINT: to (500°F)

SPECIFIC GRAVITY: 1.706

(VOC): < 0.500 lbs/gal

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)	INHALATION LC ₅₀ (rat)
Bisphenol A/epichlorohydrin Resin	11.4 g/kg (rat)	> 20 ml/kg (rabbit)	
2,2,4-trimethyl-1,3-pentanediol Monoisobutyrate	6517 mg/kg (rat)	> 15200 mg/kg (rabbit)	> 3.55 mg/l (rat)

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

COMMENTS: 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.

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) (VOC) (wt%) (Operator) VOC (From)

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

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: Touchstone T2000 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

POTENTIAL HEALTH EFFECTS

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

SKIN: Causes skin burns, irritation and possible allergic reaction.

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

INGESTION: Single dose oral toxicity is moderate. Ingestion may cause gastrointestinal irritation or ulceration. Ingestion may cause burns of mouth and throat.

INHALATION: May cause allergic respiratory reaction.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

SKIN: Contact causes skin irritation.

INHALATION: May cause respiratory sensitization or asthma in susceptible individuals. Excessive exposure may cause irritation upper respiratory tract.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS	EINECS
Polyamido Amine	Trade secret	68605-86-7	
2-piperazin-1-ylethylamine	Trade secret	000140-31-8	205-411-0
3,6-diazaoctanethylenediamine	Trade secret	000112-24-3	203-950-6
4,4'-isopropylidenediphenol	Trade secret	000080-05-7	201-245-8
Nepheline Syenite	Trade secret	37244-96-5	
Talc	Trade secret	014807-96-6	- -

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 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.

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.

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

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: Emergency showers and eyewash stations should be readily accessible. Adhere to work practice rules established by government regulations (for example, OSHA).

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
Talc	TWA		2 mg/m3

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: NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

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: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point	Solubility in Water	Specific Gravity
Polyamido Amine		Slightly soluble (less than 5%)	0.95
2-piperazin-1-ylethylamine		Soluble	0.987
3,6-diazaoctanethylenediamine	200		1.02

PHYSICAL STATE: Semisolid

ODOR: Amine

APPEARANCE: Wax-like semi-solid

COLOR: Tan

BOILING POINT: to (410°F)

SPECIFIC GRAVITY: 1.670

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

10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: Will not occur under normal conditions.

INCOMPATIBLE MATERIALS: Epoxy resins under uncontrolled conditions.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)
Polyamido Amine	2140 to 3990 mg/kg (rat)	~ 660 mg/kg (rabbit)
2-piperazin-1-ylethylamine	2150 mg/kg (rat)	1000 mg/kg
3,6-diazaoctanethylenediamine	> 1000 mg/kg	> 1000 mg/kg

EYE EFFECTS: May cause severe irritation with corneal injury, which may result in permanent impairment of vision, even blindness. Vapors may irritate eyes.

TARGET ORGANS: Repeated excessive exposures may cause liver and kidney effects.

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

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".

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt. %	CAS
4,4'-isopropylidenediphenol	Trade secret	000080-05-7

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Polyamido Amine	68605-86-7
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: 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)

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