

# SAFETY DATA SHEET



Date Prepared : 4/18/2014

MSDS No : 22

Date Revised : 3/26/2015

Revision No : 4

## 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  
**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:

Acute Toxicity (Oral), Category 4  
 Skin Corrosion, Category 1B  
 Serious Eye Damage, Category 1  
 Reproductive Toxicity, Category 2

#### Environmental:

Acute Hazards to the Aquatic Environment, Category 1

### GHS LABEL



Corrosion



Environment

Health  
hazard

**SIGNAL WORD:** DANGER

### HAZARD STATEMENTS

H312: Harmful in contact with skin.  
 H302: Harmful if swallowed.  
 H314: Causes severe skin burns and eye damage.  
 H317: May cause an allergic skin reaction.  
 H361: Suspected of damaging fertility or the unborn child [state specific effect if known] [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard].  
 H400: Very toxic to aquatic life.  
 H412: Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS****Prevention:**

- 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.  
 P273: Avoid release to the environment.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

- P309+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.  
 P302+P352: IF ON SKIN: Wash with plenty of soap and 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.  
 P370+P378: In case of fire: Use CO<sub>2</sub>, powder, or water spray for extinction.  
 P391: Collect spillage.

**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:** 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
Bisphenol A/epichlorohydrin Resin	Trade secret	25068-38-6
Nepheline Syenite	Trade secret	37244-96-5
Talc	Trade secret	14807-96-6
Nonylphenol	Trade secret	25154-52-3
2,2,4-trimethyl-1,3-pentanediol Monoisobutyrate	Trade secret	25265-77-4

**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**

**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 <sup>3</sup>
Talc	TWA			2 mg/m <sup>3</sup>

**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 (°C)	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

**FLAMMABLE LIMITS:** 0 to 0

**BOILING POINT:** to (500°F)

**SPECIFIC GRAVITY:** 1.706

**(VOC):** < 0.500 lbs/gal

## 10. STABILITY AND REACTIVITY

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**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 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 <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (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 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	25068-38-6

**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:** No product changes--this revision is strictly to update the MSDS current date.**APPROVED BY:** Mike Beckmann **TITLE:** President**Date Revised:** 3/26/2015**INFORMATION CONTACT:** Mike Beckmann**REVISION SUMMARY:** This SDS replaces the 4/18/2014 SDS. Revised: **Section 2:** .**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 :** 4/18/2014  
**MSDS No :** 23  
**Date Revised :** 3/26/2015  
**Revision No :** 4

## 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  
**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

Target Organ Toxicity (Single exposure), Category 3

#### Health:

Reproductive Toxicity, Category 2  
 Skin Corrosion, Category 1B  
 Acute Toxicity (Oral), Category 4  
 Acute Toxicity (Inhalation), Category 4  
 Skin Sensitization, Category 1  
 Acute Toxicity (Dermal), Category 4

#### Environmental:

Chronic Hazards to the Aquatic Environment, Category 2

### GHS LABEL



Corrosion



Environment



Health  
hazard

**SIGNAL WORD:** DANGER

### HAZARD STATEMENTS

H302: Harmful if swallowed.  
 H332: Harmful if inhaled.  
 H312: Harmful in contact with skin.  
 H314: Causes severe skin burns and eye damage.  
 H317: May cause an allergic skin reaction.

H361: Suspected of damaging fertility or the unborn child [state specific effect if known] [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard].

H335: May cause respiratory irritation.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

## PRECAUTIONARY STATEMENTS

### Prevention:

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

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

P261: Avoid breathing 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.

P273: Avoid release to the environment.

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

P281: Use personal protective equipment as required.

### Response:

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

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

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P363: Wash contaminated clothing before reuse.

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

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

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

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

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

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

### Storage:

P405: Store locked up.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

### 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:** 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.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Polyamido Amine	Trade secret	68605-86-7
2-piperazin-1-ylethylamine	Trade secret	140-31-8
3,6-diazaoctanethylenediamine	Trade secret	112-24-3
4,4'-isopropylidenediphenol	Trade secret	80-05-7
Nepheline Syenite	Trade secret	37244-96-5
Talc	Trade secret	14807-96-6

#### 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.

#### 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.

**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 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 <sup>3</sup>
Talc		TWA		2 mg/m <sup>3</sup>

**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 (°C)	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

**FLAMMABLE LIMITS:** 0 to 0

**BOILING POINT:** to (410°F)

**SPECIFIC GRAVITY:** 1.67

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

## 10. STABILITY AND REACTIVITY

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** Stable.

**INCOMPATIBLE MATERIALS:** Epoxy resins under uncontrolled conditions.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)
Polyamido Amine	2140 to 3990 mg/kg (rat)	~ 660 mg/kg (rabbit)
2-piperazin-1-ylethylamine	≥ 2150 mg/kg (rat)	≥ 866.8 mg/kg (rabbit)
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 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	80-05-7

### TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Polyamido Amine	68605-86-7
2-piperazin-1-ylethylamine	140-31-8

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

## 16. OTHER INFORMATION

**REASON FOR ISSUE:** No product changes--this revision is strictly to update the MSDS current date.

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

**Date Revised:** 3/26/2015

**INFORMATION CONTACT:** Mike Beckmann

**REVISION SUMMARY:** This SDS replaces the 4/18/2014 SDS. Revised: **Section 2:** .

**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.