

SAFETY DATA SHEET



Date Prepared : 03/23/2011

MSDS No : 43

Date Revised : 05/05/2015

Revision No : 2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: Touchstone Waterjet 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 (ingestion), Category 4
 Acute Toxicity (Dermal), Category 4
 Acute Toxicity (Inhalation), Category 4
 Skin Irritation, Category 2

Environmental:

Acute Hazards to the Aquatic Environment, Category 2

GHS LABEL



Environment



Exclamation
mark

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H312: Harmful in contact with skin.
 H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H302 + H312: Harmful if swallowed or in contact with skin.
 H332: Harmful if inhaled.
 H401: 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:

- 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 water/...
- 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.

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Inhalation and skin contact are expected to be the primary routes of occupational exposure to benzyl alcohol. Vapors may cause respiratory tract irritation and a burning sensation. High vapor concentrations, ingestion and skin absorption may cause headache, sore throat, coughing, difficulty breathing, low blood pressure, fatigue, nausea, vomiting, diarrhea and abdominal pain. Severe cases may result in respiratory and muscular paralysis, convulsions, narcosis and death. Direct contact with liquid may cause eye and skin irritation, allergic skin reaction and anesthetic (numbing) effects.

Mild to severe lung injury can occur if benzyl alcohol is drawn into lungs after swallowing or vomiting after swallowing.

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.

INHALATION: Prolonged inhalation may be harmful.

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
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs.	Trade secret	68609-97-2
Benzyl Alcohol	Trade secret	100-51-6

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. If breathing is difficult, give oxygen. Get immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

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

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

SMALL SPILL: Pick up liquid with additional absorbent and place in a disposable container.

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	
			Supplier OEL	
Chemical Name			ppm	mg/m ³
Benzyl Alcohol	TWA		10 ppm [1]	[1]
Footnotes:				
1. WEEL (US Workplace Environmental Exposure Levels)				

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)	Solubility in Water	Specific Gravity
Bisphenol A/epichlorohydrin Resin	480		Negligible	1.17
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs.	302	218	Negligible	0.89
Benzyl Alcohol	220		Slightly soluble (less than 5%)	1.04

PHYSICAL STATE: Liquid

APPEARANCE: Viscous liquid

COLOR: Colorless.

FLASHPOINT AND METHOD: (220°F)

FLAMMABLE LIMITS: 0 to 0

AUTOIGNITION TEMPERATURE: (616°F)

BOILING POINT: (401°F) to (500°F)

SOLUBILITY IN WATER: Negligible

SPECIFIC GRAVITY: 1.159

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 ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Bisphenol A/epichlorohydrin Resin	11.4 g/kg (rat)	> 20 ml/kg (rabbit)	
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs.	19200 mg/kg (rat)	> 4500 mg/kg (rabbit)	
Benzyl Alcohol	1230 to 3100 (rat)	2000 mg/kg (rabbit)	1000 ppm (rat)

SKIN EFFECTS: Causes irritation to skin.

GENERAL COMMENTS: Slight to very low toxicity.

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
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs.	68609-97-2
Benzyl Alcohol	100-51-6

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

STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Benzyl Alcohol	This product does contain the following chemical(s), as indicated below, currently on the Massachusetts Right to Know Substance List: Benzyl Alcohol This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List: Benzyl Alcohol

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: 05/05/2015

INFORMATION CONTACT: Mike Beckmann

REVISION SUMMARY: This SDS replaces the 03/22/2011 SDS. Revised: **Section 1:** REASON FOR ISSUE. **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 : 05/05/2015

MSDS No : 247

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: B-405; Crack Repair 28 Part B; Water-Jet Part B; Boncrete 405 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

Health:

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

Environmental:

Chronic Hazards to the Aquatic Environment, Category 3

GHS LABEL



Corrosion

Health
hazard

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H302: Harmful if swallowed.
 H332: Harmful if inhaled.
 H314: Causes severe skin burns and eye damage.
 H318: Causes serious 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.

H412: Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Disposal:

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.

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

P310: Immediately call a POISON CENTER/doctor/...

P321: Specific treatment (see ... on this label).

P301: IF SWALLOWED:.

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

P304: IF INHALED:.

P340: Remove person to fresh air and keep comfortable for breathing.

P363: Wash contaminated clothing before reuse.

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.

P330: Rinse mouth.

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

P405: Store locked up.

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

POTENTIAL HEALTH EFFECTS

EYES: Contact may cause eye irritation.

SKIN: May cause skin irritation.

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: Irritating to the nose, throat and respiratory tract.

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
Polyamide resin	Trade secret	68410-23-1
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

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.

5. FIRE FIGHTING MEASURES

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

EXTINGUISHING MEDIA: Use alcohol foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

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

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: Keep containers tightly closed, and stored in a cool, dry, well ventilated place.

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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: 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)	Solubility in Water	Specific Gravity
Polyamide resin	365		0.97
2-piperazin-1-ylethylamine		Soluble	0.987
3,6-diazaoctanethylenediamine	200		1.02

PHYSICAL STATE: Liquid

ODOR: Amine

APPEARANCE: Viscous, amber liquid

FLAMMABLE LIMITS: to 0

VAPOR PRESSURE: 15

VAPOR DENSITY: 15

BOILING POINT: to (410°F)

SOLUBILITY IN WATER: Moderate

SPECIFIC GRAVITY: 1.001

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

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: Stable.

CONDITIONS TO AVOID: Strong acids and oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides, carbon dioxide, and carbon monoxide.

INCOMPATIBLE MATERIALS: Epoxy resins under uncontrolled conditions.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (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: Eye irritation = 105, Rabbit (Scale 0-110)

SKIN EFFECTS: Skin irritation = 1.2, Rabbit (Scale 0-8)

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****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.**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
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:** New MSDS format**APPROVED BY:** Mike Beckmann **TITLE:** President**Date Prepared:** 05/05/2015**INFORMATION CONTACT:** Mike Beckmann**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.