

MATERIAL SAFETY DATA SHEET



Bonstone Materials Corporation

Date Issued: 02/01/2007

MSDS No: 17

Revision No: New MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: Touchstone Express II, Flowing, Part A

MANUFACTURER

Bonstone Materials Corporation
707 Swan Drive
Mukwonago WI 53149

Emergency Contact: Mike Beckmann

Product Stewardship: 262-363-9877

Alternate Emergency Phone: 262-363-9878

24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

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.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

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	- -
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs.	Trade secret	068609-97-2	271-846-8
Benzyl Alcohol	Trade secret	000100-51-6	202-859-9

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.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: (220°F)

FLAMMABLE LIMITS: 0 to 0

AUTOIGNITION TEMPERATURE: (616°F)

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	

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)	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.

BOILING POINT: (401°F) to (500°F)

FLASHPOINT AND METHOD: (220°F)

SPECIFIC GRAVITY: 1.163

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)	
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

ENVIRONMENTAL DATA: Do not flush to sewer.

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
Oxirane, Mono[(c12-14-alkyloxy)methyl] Derivs.	068609-97-2
Benzyl Alcohol	000100-51-6

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 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**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: 01/31/2007

MSDS No: 15

Revision No: New MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: Touchstone Express II, Flowing, Part B

MANUFACTURER

Bonstone Materials Corporation
707 Swan Drive
Mukwonago WI 53149

Emergency Contact: Mike Beckmann

Product Stewardship: 262-363-9877

Alternate Emergency Phone: 262-363-9878

24 HR. EMERGENCY TELEPHONE NUMBERS

Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

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: Extremely irritating to the eyes and may cause severe damage including blindness.

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: Persons with asthmatic type conditions, chronic bronchitis or other respiratory diseases, or recurrent skin eczema or sensitization should be excluded from working with the product.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

SKIN: Contact causes skin irritation.

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
Benzene-1,3-dimethanamine (MXDA)	Trade secret	1477-55-0	
4,4'-isopropylidenediphenol	Trade secret	000080-05-7	201-245-8
Benzyl Alcohol	Trade secret	000100-51-6	202-859-9
Salicylic acid	Trade secret	69-72-7	
Ethanol	0.5 - 0.9	000064-17-5	200-578-6

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 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

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

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					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Benzyl Alcohol	TWA					10 ppm	
Ethanol	TWA	1000 ppm	1900 mg/m ³	1000 ppm	1880 mg/m ³	NL	NL
	STEL	NL ppm	NL mg/m ³	NL ppm	NL mg/m ³	NL	NL

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	Solubility in Water	Specific Gravity
Benzyl Alcohol	220	Slightly soluble (less than 5%)	1.04

PHYSICAL STATE: Liquid

ODOR: Amine

APPEARANCE: Light colored liquid.

PERCENT VOLATILE: 0.5

BOILING POINT: to (401°F)

SOLUBILITY IN WATER: Partially Soluble

SPECIFIC GRAVITY: 1.024

10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: Will not occur under normal conditions.

CONDITIONS TO AVOID: Extreme heat, exposure to active metal alloys and oxidizing agents.

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)	INHALATION LC ₅₀ (rat)
Benzyl Alcohol	1230 to 3100 (rat)	2000 mg/kg (rabbit)	1000 ppm (rat)

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

SKIN EFFECTS: May cause severe injury to skin following prolonged or repeated contact, and may cause skin sensitization or other allergic responses.

GENERAL COMMENTS: Slight to very low toxicity.

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: Amines, liquid, corrosive N.O.S. , Class 8, UN 2735, Packing Group III
(Contains benzene-1,3-dimethaneamine (MXDA))

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".

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
Benzyl Alcohol	000100-51-6
Ethanol	000064-17-5

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

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 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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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.