

SAFETY DATA SHEET



Date Prepared : 07/03/2013

MSDS No : 226

Date Revised : 05/07/2015

Revision No : 2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: Touchstone Fuzion, Part A, Epoxy

PRODUCT CODE: Fuzion 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 LABEL



Exclamation
mark Environment

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H312: Harmful in contact with skin.

H317: May cause an allergic skin reaction.

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

PHYSICAL APPEARANCE: Clear, viscous liquid.

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 |

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

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

5. FIRE FIGHTING MEASURES

EXPLOSION HAZARDS: None known.

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

GENERAL PROCEDURES: Absorb the liquid and scrub the area with detergent and water.

SPECIAL PROTECTIVE EQUIPMENT: Remove contaminated clothing and wash before reuse.

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**PERSONAL PROTECTIVE EQUIPMENT**

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

OTHER USE PRECAUTIONS: Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Chemical Name | Flash Point (°C) | Solubility in Water | Specific Gravity |
|-----------------------------------|------------------|---------------------|------------------|
| Bisphenol A/epichlorohydrin Resin | 480 | Negligible | 1.17 |

PHYSICAL STATE: Liquid

APPEARANCE: Light colored liquid.

FLASHPOINT AND METHOD: (480°F)

BOILING POINT: (500°F) to (500°F)

SOLUBILITY IN WATER: Negligible

SPECIFIC GRAVITY: 1.17

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

10. STABILITY AND REACTIVITY

REACTIVITY: Yes

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) |
|-----------------------------------|-----------------------------|----------------------------------|
| Bisphenol A/epichlorohydrin Resin | 11.4 g/kg (rat) | > 20 ml/kg (rabbit) |

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 |

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 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:** 05/07/2015**INFORMATION CONTACT:** Mike Beckmann**REVISION SUMMARY:** This SDS replaces the 10/01/2013 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 : 07/03/2013

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: Touchstone Fuzion, Part B, Curing Agent**PRODUCT CODE:** Fuzion 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 (Dermal), Category 3

Acute Toxicity (Oral), Category 4

Acute Toxicity (Inhalation), Category 2

Skin Sensitization, Category 1

Skin Corrosion, Category 1B

Serious Eye Damage, Category 1

Reproductive Toxicity, Category 2

Environmental:

Acute Hazards to the Aquatic Environment, Category 1

Chronic Hazards to the Aquatic Environment, Category 3

Physical:

Flammable Liquids, Category 4

GHS LABEL

Corrosion

Skull and
crossbonesHealth
hazard

Environment

SIGNAL WORD: DANGER**HAZARD STATEMENTS**

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.
 H412: Harmful to aquatic life with long lasting effects.
 H227: Combustible liquid.
 H311: Toxic in contact with skin.
 H317: May cause an allergic skin reaction.
 H318: Causes serious eye damage.
 H315: Causes skin irritation.
 H400: Very toxic to aquatic life.
 H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled.
 H303 + H313 + H333: May be harmful if swallowed, in contact with skin or if inhaled.
 H330: Fatal if inhaled.
 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).

PRECAUTIONARY STATEMENTS

Prevention:

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.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P284: [In case of inadequate ventilation] wear respiratory protection.

Response:

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/...
 P312: Call a POISON CENTER/doctor/...if you feel unwell.
 P322: Specific measures (see ... on this label).
 P330: Rinse mouth.
 P362: Take off contaminated clothing.
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P302+P352: IF ON SKIN: Wash with plenty of water/...
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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: 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 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: 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 |
|----------------------------------|--------------|------------|
| Benzene-1,3-dimethanamine (MXDA) | Trade secret | 1477-55-0 |
| 4,4'-isopropylidenediphenol | Trade secret | 80-05-7 |
| Benzyl Alcohol | Trade secret | 100-51-6 |
| Salicylic acid | Trade secret | 69-72-7 |
| Nonylphenol | Trade secret | 25154-52-3 |
| 2-piperazin-1-ylethylamine | Trade secret | 140-31-8 |
| Polyoxypropylenediamine | Trade secret | 9046-10-0 |

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.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

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.

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: 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

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: 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 (°C) | Solubility in Water | Specific Gravity |
|----------------------------|------------------|---------------------------------|------------------|
| Benzyl Alcohol | 220 | Slightly soluble (less than 5%) | 1.04 |
| 2-piperazin-1-ylethylamine | | Soluble | 0.987 |
| Polyoxypropylenediamine | 250 | | 0.948 |

PHYSICAL STATE: Liquid

ODOR: Amine

APPEARANCE: Light colored liquid.

FLASHPOINT AND METHOD: (250°F)

FLAMMABLE LIMITS: 0 to 0

VAPOR PRESSURE: 12.586

VAPOR DENSITY: 12.586

BOILING POINT: (410°F) to (500°F)

SPECIFIC GRAVITY: 1.019

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

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: Stable.

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) |
| 2-piperazin-1-ylethylamine | ≥ 2150 mg/kg (rat) | ≥ 866.8 mg/kg (rabbit) | |
| Polyoxypropylenediamine | 2.88 g/kg (rat) | 2980 mg/kg (rabbit) | |

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.

GENERAL COMMENTS: Slight to very low toxicity.

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

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: Corrosive Liquid N.O.S. , Class 8, UN 1760, Packing Group II
(Contains benzene-1,3-dimethanamine (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 | 80-05-7 |

TSCA (TOXIC SUBSTANCE CONTROL ACT)

| Chemical Name | CAS |
|----------------------------|-----------|
| Benzyl Alcohol | 100-51-6 |
| 2-piperazin-1-ylethylamine | 140-31-8 |
| Polyoxypropylenediamine | 9046-10-0 |

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

Date Revised: 05/07/2015

INFORMATION CONTACT: Mike Beckmann

REVISION SUMMARY: This SDS replaces the 10/01/2013 SDS. Revised: **Section 1:** REASON FOR ISSUE. **Section 2:** .

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