

# MSDS Document

## Product BOSS® 295 4-Minute Epoxy Part A (resin)

### 1. Chemical Product and Company Identification

**Trade Name of this Product** BOSS® 295 4-Minute Epoxy Part A (resin)

**Synonyms:** Industrial Sealants, 02196CL10, 29510, BOSS Industrial, Resin, Part A

**MSDS ID** BOSS295a

**Manufacturer**

Accumetric, LLC  
350 Ring Road  
Elizabethtown, KY 42701

**Phone Number**

(270) 769-3385

**Emergency Phone**

CHEMTREC (800) 424-9300

**Revision Date** 12/9/2004

Health:	2
Fire:	1
Reactivity:	1
Specific	

### 2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
Bisphenol A / Epichlorohydrin Resin	25068-38-6	>60 %			

### 3. Hazard Identification

**Primary Routes of Entry**

Eye contact, skin contact.

**Health Hazards**

Eye and skin irritant. Potential skin sensitizer.

**Eye Contact**

Moderate irritant (stinging, burning sensation, tearing, redness, swelling). Contact at elevated temperatures can cause thermal burns which may result in permanent damage or blindness.

**Skin Contact**

Moderate irritant. Contact at elevated temperatures can cause thermal burns which may result in permanent damage. May cause skin sensitization (itching, redness, rashes, hives,

burning, swelling).

#### **Inhalation**

The low vapor pressure of the resin makes inhalation unlikely in normal use. In applications where vapors (caused by high temperature) or mists (caused by mixing) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

#### **Ingestion**

Acute oral toxicity is low. May cause gastric distress (nausea, vomiting, diarrhea).

#### **Symptoms of Overexposure**

Prolonged or repeated skin contact may cause sensitization with itching, swelling or rashes on later exposure.

#### **Existing Conditions Aggravated by Exposure**

Preexisting eye and skin disorders. Development of preexisting skin or lung allergies may increase.

### **4. First Aid Information**

#### **Eye Contact**

Flush eyes with clean water for at least 20 minutes while holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

#### **Skin Contact**

Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. Wash thoroughly with soap and water. Consult a physician if irritation develops.

#### **Inhalation**

Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

#### **Ingestion**

Do NOT induce vomiting unless directed by medical personnel. Rinse mouth out with water, then sip water to remove taste from mouth. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get medical attention.

### **5. Fire Fighting Measures**

<b>Flash Point</b>	>400F
<b>FP Method</b>	PMCC

#### **Extinguishing Media**

Carbon Dioxide, Dry Chemical, Foam

#### **Special Fire Fighting Procedures**

Material will not burn unless preheated. Do not enter confined space without full bunker gear. Firefighters should wear self-contained breathing apparatus and protective clothing.

Cool fire exposed containers with water.

#### **Unusual Fire or Explosion Hazards**

Heating above 300F in the presence of air may cause slow oxidative decomposition and above 500F may cause polymerization. Personnel in vicinity and downwind should be evacuated.

#### **Hazardous Decomposition Products**

Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products:

Fumes of Chlorine

Carbon monoxide

Other fumes and vapors varying in composition and toxicity

## **6. Accidental Release Measures**

#### **Steps to be taken in case of spill or release**

Observe all personal protection equipment recommendations. Restrict to only those personnel needed. Eliminate ignition sources. Ventilate area.

Dike, contain and absorb with clay, sand or other suitable material.

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. Flush area with water to remove trace residue. Clean-up waste water should be placed in appropriate containers for proper disposal.

## **7. Handling and Storage**

#### **Storage**

Store in a cool, dry area away from high temperatures and flames. Keep containers closed when not in use.

#### **Handling**

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics or using toilet facilities. Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles. Handle mixed resin and hardener in accordance with potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.

## **8. Exposure Controls and Personal Protection**

#### **Eye Protection**

Chemical goggles if liquid contact is likely, or safety glasses with side shields.

#### **Skin Protection**

Chemical resistant gloves (i.e. butyl) and other gear as required to prevent skin contact.

### **Ventilation**

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to lowest feasible limits when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred. Local exhaust may be required for confined areas.

### **Respiratory Protection**

None needed in normal use with proper ventilation. In poorly ventilated areas used NIOSH approved organic vapor cartridge respirator for uncured resin, dust/particle respirators during grinding/sanding operations of cured resin, or fresh air line respirator as exposure levels dictate.

### **Other Precautions**

Have emergency shower and eye wash available.

## **9. Physical and Chemical Properties**

<b>Physical State</b>	Viscous liquid
<b>Specific Gravity</b>	1.17
<b>Density lbs/Gal.</b>	9.764123
<b>Color/Appearance</b>	Clear
<b>Odor</b>	Little odor
<b>pH</b>	Neutral (5% sol. in water)
<b>Boiling/Cond. Point</b>	>500F
<b>Melting/Freezing Point</b>	Not determined
<b>Solubility</b>	Negligible
<b>Evaporation Rate</b>	<<1 (butyl acetate=1)
<b>VOC %</b>	0
<b>Percent Volatile</b>	0 (by volume)
<b>Vapor Density</b>	>1 (air=1)
<b>Vapor Pressure</b>	0.03 mm Hg @ 171F

### **Note**

The above information is not intended for use in preparing product specifications. Contact Accumetric LLC before writing specifications.

## **10. Stability and Reactivity**

### **Chemical Stability**

Stable

### **Conditions to Avoid**

Open flame and extreme heat.

### **Hazardous Polymerization**

Hazardous polymerization should not occur under normal conditions. However, user should be aware that heat is generated when resin is mixed with curing agents; runaway cure reactions may char and decompose resin, generating unidentified fumes and vapors which may be toxic.

### **Materials to Avoid / Incompatibility**

Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines).

## **11. Toxicological Information**

### **Carcinogenicity**

Recent 2-year bio assays in rats and mice exposed by the dermal route to DGEBA yielded no evidence of carcinogenicity to the skin or any other organs. This study clarifies prior equivocal results from a 2-year mouse skin painting study, which were suggestive, but not conclusive, for weak carcinogenic activity.

The International Agency for Research on Cancer (IARC) concluded that DGEBA is not classifiable as a carcinogen (IARC group 3), that is human and animal evidence of carcinogenicity is inadequate.

### **Mutagenicity**

Liquid resins based on diglycidyl ether of Bisphenol A (DGEBA), have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown.

### **Other Chronic Effects**

Prolonged or repeated skin contact may cause sensitization, with itching, swelling or rashes on later exposure. Studies have shown bisphenol A diglycidyl ether resin to cause allergic contact dermatitis.

### **NIOSH - Selected LD50s and LC50s**

Bisphenol A diglycidyl ether resin (25068-38-6)

Oral LD50 (rat) 11.4 g/kg

Dermal LD50 (rabbit) >20mL/kg

Inhalation LC50 4 hour (rat) No Deaths

## **12. Ecological Information**

### **Environmental Fate and Distribution**

Complete information is not yet available.

### **Fate and Effects in Waste Water Treatment Plants**

Complete information is not yet available.

### **Environmental Effects**

Complete information is not yet available.

## **13. Disposal Considerations**

### **Waste Disposal Method**

We make no guarantee or warranty of any kind that the use or disposal of this product complies with all local, state, or federal laws. It is also the obligation of each user of the

product mentioned herein to determine and comply with the requirements of all applicable statutes.

This product is not known to be regulated under RCRA regulations. Disposal of unused portions of this product and process waste containing this product should be done only after a careful evaluation and in compliance with all federal, local and state laws.

## 14. Transportation Information

### **Ocean Shipment (IMDG)**

Not subject to IMDG code.

### **Air Shipment (IATA)**

Not subject to IATA regulations.

### **DOT Road Shipment Information**

Not subject to DOT.

## 15. Regulatory Information

### **TSCA Status**

All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

### **California Proposition 65**

This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm:

A chemical or chemicals known to the State of California to cause cancer, birth defects or other reproductive harm may be present in this product.

### **SARA Title III Section 302 Extremely Hazardous Substances**

None

### **SARA Title III Section 304 CERCLA Hazardous Substances**

None

### **SARA Title III Section 312 Hazard Class**

Acute: Yes

Chronic: Yes

Fire: No

Pressure: No

Reactive: No

### **SARA Title III Section 313 Toxic Chemicals**

None present or none present in regulated quantities.

## 16. Other Information

### **Disclaimer**

The data contained herein is based upon information that Accumetric LLC believes to be

reliable. Users of this product have the responsibility to determine that suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements to suggestions are made without warranty, expressed or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.

# MSDS Document

## Product BOSS® 295 4-Minute Epoxy Part B (hardener)

### 1. Chemical Product and Company Identification

**Trade Name of this Product** BOSS® 295 4-Minute Epoxy Part B (hardener)

**Synonyms:** Industrial Sealants, 02196CL10, 29510, BOSS Industrial, Part B, Hardener

**MSDS ID** BOSS295b

**Manufacturer**

Accumetric, LLC  
350 Ring Road  
Elizabethtown, KY 42701

**Phone Number**

(270) 769-3385

**Emergency Phone**

CHEMTREC (800) 424-9300

**Revision Date** 12/9/2004

Health:	3
Fire:	1
Reactivity:	1
Specific	

### 2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
Mercaptan amine blend	Trade Secret	90% - 100%			

### 3. Hazard Identification

**Health Hazards**

Eye, skin and respiratory irritant. Possible skin sensitizer. Over exposure may cause delayed lung effects.

**Primary Routes of Entry**

Eye contact, inhalation, skin contact

**Skin Contact**

Can cause severe irritation, especially on prolonged contact. Potential sensitizer.

**Eye Contact**

Causes severe irritation with possible permanent damage and even blindness.

**Inhalation**

Considered slightly toxic. Can cause irritation of the respiratory tract. Over exposure to

fumes or vapors may cause delayed lung injury and chemical pneumonia.

#### **Ingestion**

Slightly toxic. May cause fatigue, muscle weakness, gastrointestinal irritation, nausea, vomiting and diarrhea.

#### **Symptoms of Overexposure**

Prolonged or severe overexposure to vapor can cause delayed lung damage and chemical pneumonia. Prolonged or repeated contact with this material may cause skin sensitization.

#### **Existing Conditions Aggravated by Exposure**

May aggravate existing skin, eye and lung conditions.

### **4. First Aid Information**

#### **Eye Contact**

Flush eyes with clean water for at least 20 minutes while holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

#### **Skin Contact**

Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. Wash thoroughly with soap and water. Consult a physician if irritation develops.

#### **Inhalation**

Remove individual to fresh air. Give oxygen if breathing is labored. If breathing has stopped give artificial respiration. Keep person warm, quiet and seek medical attention.

#### **Ingestion**

Do NOT induce vomiting. Administer 3-4 glasses of milk or water. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get immediate medical attention.

### **5. Fire Fighting Measures**

<b>Flash Point</b>	>200F
<b>FP Method</b>	PMCC

#### **Flammability Class**

IIIB

#### **Extinguishing Media**

Carbon Dioxide, Dry Chemical, Foam, Water Spray

#### **Special Fire Fighting Procedures**

Do not enter confined space without full bunker gear. Fire fighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact with this material. Cool fire exposed containers with water.

### **Unusual Fire or Explosion Hazards**

Personnel in vicinity and downwind should be evacuated.

### **Hazardous Decomposition Products**

Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products:

Acrid and toxic fumes with organic amines

Ammonia

Oxides of carbon

Oxides of nitrogen

Oxides of sulfur

## **6. Accidental Release Measures**

### **Steps to be taken in case of spill or release**

Observe all personal protection equipment recommendations. Ventilate area. Remove all possible sources of ignition. Avoid prolonged breathing of vapor. Contain spill with inert absorbent. Local, state and federal regulations may apply to releases and disposal of this material, as well as those materials and items employed in cleanup of releases.

## **7. Handling and Storage**

### **Handling**

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics or using toilet facilities. Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles. Handle mixed resin and hardener in accordance with potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.

### **Storage**

Store in a cool, dry area away from high temperatures and flames. Keep containers closed when not in use.

## **8. Exposure Controls and Personal Protection**

### **Eye Protection**

Chemical goggles if liquid contact is likely, or safety glasses with side shields.

### **Skin Protection**

Chemical resistant rubber (e.g. neoprene, butyl rubber, nitrile) gloves and other protective gear as needed to prevent skin contact.

### **Respiratory Protection**

None needed in normal use with proper ventilation. In poorly ventilated areas used NIOSH approved organic vapor cartridge respirator for uncured resin, dust/particle respirators during grinding/sanding operations of cured resin, or fresh air line respirator as exposure levels dictate.

### **Ventilation**

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to lowest feasible limits when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred. Local exhaust may be required for confined areas.

### **Other Precautions**

Have emergency shower and eye wash available.

## **9. Physical and Chemical Properties**

<b>Physical State</b>	Liquid
<b>Specific Gravity</b>	1.13
<b>Density lbs/Gal.</b>	9.4303068
<b>Color/Appearance</b>	Clear to slightly yellow
<b>Odor</b>	Mercaptan odor
<b>pH</b>	9.5 (5% sol. in water)
<b>Boiling/Cond. Point</b>	Not determined
<b>Melting/Freezing Point</b>	Not determined
<b>Solubility</b>	Negligible
<b>Evaporation Rate</b>	Not determined
<b>Percent Volatile</b>	0 (by volume)
<b>Vapor Density</b>	Not determined

### **Note**

The above information is not intended for use in preparing product specifications. Contact Accumetric LLC before writing specifications.

## **10. Stability and Reactivity**

### **Chemical Stability**

Stable

### **Conditions to Avoid**

Open flame and extreme heat.

### **Materials to Avoid / Incompatibility**

Strong oxidizing agents. Amines.

### **Hazardous Polymerization**

Hazardous polymerization should not occur under normal conditions. However, user should be aware that heat is generated when resin is mixed with curing agents; runaway cure reactions may char and decompose resin, generating unidentified fumes and vapors which may be toxic.

## **11. Toxicological Information**

### **Carcinogenicity**

No data

**Teratogenicity**

No data

**Mutagenicity**

No data

**Other Chronic Effects**

No data

**NIOSH - Selected LD50s and LC50s**

Mercaptan amine blend

Oral LD50 (rat) Not determined

Dermal LD50 (rabbit) Not determined

Inhalation LC50 4 hour (rat) Not determined

## 12. Ecological Information

**Environmental Fate and Distribution**

Complete information is not yet available.

**Fate and Effects in Waste Water Treatment Plants**

Complete information is not yet available.

**Environmental Effects**

Complete information is not yet available.

## 13. Disposal Considerations

**Waste Disposal Method**

We make no guarantee or warranty of any kind that the use or disposal of this product complies with all local, state, or federal laws. It is also the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable statutes.

This product is not known to be regulated under RCRA regulations. Disposal of unused portions of this product and process waste containing this product should be done only after a careful evaluation and in compliance with all federal, local and state laws.

## 14. Transportation Information

**DOT Road Shipment Information**

Not subject to DOT.

**Air Shipment (IATA)**

Not subject to IATA regulations.

**Ocean Shipment (IMDG)**

Not subject to IMDG code.

## 15. Regulatory Information

The contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

### **TSCA Status**

All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

### **California Proposition 65**

This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm:  
None known

### **SARA Title III Section 302 Extremely Hazardous Substances**

None

### **SARA Title III Section 304 CERCLA Hazardous Substances**

None

### **SARA Title III Section 312 Hazard Class**

Acute: Yes

Chronic: Yes

Fire: No

Pressure: No

Reactive: No

### **SARA Title III Section 313 Toxic Chemicals**

None present or none present in regulated quantities.

## 16. Other Information

### **Disclaimer**

The data contained herein is based upon information that Accumetric LLC believes to be reliable. Users of this product have the responsibility to determine that suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. All statements to suggestions are made without warranty, expressed or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof.