

# Preformed Epoxy Resin Compounds

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012  
Date of issue: 10/16/2015 Revision date: 10/16/2015 Version: 1.0



### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : M5-92 Black M17-19 Black  
M5-92 Red M17-19 Red  
DC-207 Red  
Product code : Not available

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture Electrical/Electronic Encapsulant, Sealant

#### 1.3. Details of the supplier of the safety data sheet

Multi-Seals, Inc.  
540 North Main St.  
Manchester, CT 06042 - USA  
T 860-643-7188

#### 1.4. Emergency telephone number

Emergency number : 860-643-7188 (8:30am - 5:00pm EST)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Skin Sensitization 1

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : May cause an allergic skin reaction  
Precautionary statements (GHS-US) : Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. If on skin: Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

M5-92 Black/M5-92 Red: 60 percent of the mixture consists of ingredient(s) of unknown acute toxicity.  
DC-207 Red/M17-19 Black/M17-19 Red: 20 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%
Formaldehyde, polymer with (chloromethyl)oxirane and 2-methylphenol	(CAS No) 29690-82-2	20 - 90
Bisphenol A diglycidyl ether - bisphenol A copolymer	(CAS No) 25036-25-3 <sup>1</sup>	60 - 90
Bisphenol A-epichlorohydrin polymer	(CAS No) 25068-38-6 <sup>2</sup>	40 - 60
Benzenamine, 4,4'-sulfonylbis-	(CAS No) 80-08-0	7 - 20

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2-Methylimidazole	(CAS No) 693-98-1	< 0.1
<sup>1</sup> Only present in DC-207 Red		
<sup>2</sup> Only present in M17-19 Black/M17-19 Red		

\* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Not a normal route of exposure. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists. In case of contact with hot or molten product, get immediate medical advice/attention.
First-aid measures after eye contact	: If irritation occurs, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention. In case of contact with hot or molten product, get immediate medical advice/attention.
First-aid measures after ingestion	: Not a normal route of exposure. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: Not a normal route of exposure. May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: Not a normal route of exposure. May result in obstruction and temporary irritation of the digestive tract.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Powder, water spray, foam, carbon dioxide.
Unsuitable extinguishing media	: None known.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Products of combustion may include, and are not limited to: oxides of carbon, oxides of nitrogen, oxides of sulfur.
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#### 5.3. Advice for firefighters

Protection during firefighting	: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).
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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release.
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#### 6.2. Methods and material for containment and cleaning up

For containment	: With molten spills, allow the material to solidify and cool. Pick up large pieces, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for cleaning up	: Vacuum or sweep material and place in a disposal container.

#### 6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling	: Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
Hygiene measures	: Wash hands before eating, drinking, or smoking.

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### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Store in a dry, cool area. Keep container tightly closed.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Formaldehyde, polymer with (chloromethyl)oxirane and 2-methylphenol (29690-82-2)	
ACGIH	Not applicable
OSHA	Not applicable

Bisphenol A diglycidyl ether - bisphenol A copolymer (25036-25-3)	
ACGIH	Not applicable
OSHA	Not applicable

Bisphenol A-epichlorohydrin polymer (25068-38-6)	
ACGIH	Not applicable
OSHA	Not applicable

Benzenamine, 4,4'-sulfonylbis- (80-08-0)	
ACGIH	Not applicable
OSHA	Not applicable

2-Methylimidazole (693-98-1)	
ACGIH	Not applicable
OSHA	Not applicable

### 8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Safety glasses or goggles are recommended when using product.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : None necessary under normal conditions of use.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid geometric shapes

Appearance : No data available.

Color : Various: Black / Red

Odor : No data available

Odor threshold : No data available

pH : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Relative evaporation rate (butylacetate=1) : No data available

Flammability (solid, gas) : Not flammable

Explosive limits : No data available

Explosive properties : No data available

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Oxidising properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2. Chemical stability

Stable under normal storage conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4. Conditions to avoid

Heat. Incompatible materials. Moisture.

### 10.5. Incompatible materials

Acids. Bases. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon, oxides of nitrogen, oxides of sulfur.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified.

High Temp Epoxy Systems	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	No data available
LC50 inhalation rat	No data available

Bisphenol A diglycidyl ether - bisphenol A copolymer (25036-25-3)	
LD50 oral rat	> 2000 mg/kg

Bisphenol A-epichlorohydrin polymer (25068-38-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 20 ml/kg

Benzenamine, 4,4'-sulfonylbis- (80-08-0)	
LD50 oral rat	375 mg/kg
LD50 dermal rabbit	> 4 g/kg

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.

Benzenamine, 4,4'-sulfonylbis- (80-08-0)	
IARC group	3 - Not classifiable

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### 2-Methylimidazole (693-98-1)

IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity

Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Not a normal route of exposure. May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: Not a normal route of exposure. May result in obstruction and temporary irritation of the digestive tract.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: May cause long-term adverse effects in the aquatic environment.
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### 12.2. Persistence and degradability

#### High Temp Epoxy Systems

Persistence and degradability	Not established.
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### 12.3. Bioaccumulative potential

#### High Temp Epoxy Systems

Bioaccumulative potential	Not established.
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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming	: No known ecological damage caused by this product.
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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. The generation of waste should be avoided or minimized wherever possible.
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## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT  
Not regulated for transport

### Additional information

Other information	: No supplementary information available.
Special transport precautions	: Do not handle until all safety precautions have been read and understood.

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

#### Bisphenol A diglycidyl ether - bisphenol A copolymer (25036-25-3)

EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.
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### 15.2. US State regulations

#### High Temp Epoxy Systems

State or local regulations	This product contains a chemical known to the State of California to cause cancer.
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### 15.3. EU RoHS

#### Preformed Epoxy Resin Compounds

Directive 2011/65/EU	This product does not have levels of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PPB), or polybrominated diphenyl ether (PBDE) detectable above the limits proposed by EU Directive 2011/65/EU RoHS; therefore, these products are fully compliant with EU Directive 2011/65/EU RoHS
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## SECTION 16: Other information

Date of issue : 10/16/2015  
Revision date : 10/16/2015  
Other information : None.

Prepared by: Burton S. Anderson 07-31-2015

*Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.*

*Disclosure: Any ingredient claimed as a trade secret will be disclosed in accordance with CFR 29 1910.1200 (j). Known to be present only as a trace impurity in the finished product: NONE See Section 8 of this SDS for any noted exposure limits for these compounds. This Safety Data Sheet (SDS) has been prepared in compliance with the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200 The listed components are considered to be hazardous under that standard.*