



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** SCOTCHCAST BRAND ELECTRICAL INSULATING RESIN NO. 4 PARTS A AND B  
(UNIPAK)

**MANUFACTURER:** 3M

**DIVISION:** 3M Germany

**ADDRESS:** 3M Center  
St. Paul, MN 55144-1000

**EMERGENCY PHONE:** 1-800-364-3577 or (651) 737-6501 (24 hours)

**Issue Date:** 09/24/10

**Supersedes Date:** 12/11/01

**Document Group:** 11-1919-7

**Product Use:**

Intended Use: ELECTRICAL POTTING COMPOUND

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
PART A	None	Not Applicable
EPOXY RESIN	25068-38-6	65 - 70
PHENOL-FORMALDEHYDE POLYMER GLYCIDYL ETHER	28064-14-4	25 - 30
ALKYL(C10-C16)GLYCIDYL ETHER	68081-84-5	1 - 5
PART B	None	Not Applicable
Epoxy Resin	25068-38-6	1 - 5
FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH	68919-79-9	15 - 20
TRIETHYLENETETRAMINE		
SOLVENT-REFINED HEAVY PARAFFINIC PETROLEUM DISTILLATES	64741-88-4	15 - 20
N-AMINOETHYLPIPERAZINE	140-31-8	15 - 20
PARTIALLY HYDROGENATED AROMATIC HYDROCARBON OIL	38640-62-9	1 - 5
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	90-72-2	1 - 5
PHENOL, 4-NONYL-, branched	84852-15-3	35 - 40
PHENOL-FORMALDEHYDE POLYMER GLYCIDYL ETHER	28064-14-4	1 - 5
CARBON BLACK	1333-86-4	0.1 - 1

## **SECTION 3: HAZARDS IDENTIFICATION**

### **3.1 EMERGENCY OVERVIEW**

**Odor, Color, Grade:** PART A: Transparent Light-Yellow Liquid ; Characteristic Odor. PART B: Black Liquid.

**General Physical Form:** Solid

**Immediate health, physical, and environmental hazards:** May cause chemical eye burns. May cause chemical skin burns. May cause allergic skin reaction. May cause chemical gastrointestinal burns. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm. Contains a chemical or chemicals which can cause cancer.

### **3.2 POTENTIAL HEALTH EFFECTS**

**Eye Contact:**

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

**Skin Contact:**

May be harmful if absorbed through skin.

Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

**Inhalation:**

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

**Ingestion:**

May be harmful if swallowed.

Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

**Target Organ Effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

**Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

**Ingredient**  
CARBON BLACK

**C.A.S. No.**  
1333-86-4

**Class Description**  
Grp. 2B: Possible human carc.

**Regulation**  
International Agency for Research on Cancer

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water for at least 15 minutes. Get immediate medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	$\geq 150^{\circ}\text{C}$ [Test Method: Closed Cup]
Flammable Limits - LEL	No Data Available
Flammable Limits - UEL	No Data Available

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Not applicable.

<b>Note:</b> See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.
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## SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

#### **Environmental procedures**

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

#### **Clean-up methods**

Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS.

<b>In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.</b>
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## **SECTION 7: HANDLING AND STORAGE**

### **7.1 HANDLING**

Avoid breathing of vapors created during cure cycle. Do not get in eyes, on skin or on clothing. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition.

### **7.2 STORAGE**

Store away from acids.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 ENGINEERING CONTROLS**

Use with appropriate local exhaust ventilation.

### **8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

#### **8.2.1 Eye/Face Protection**

Do not get in eyes.

The following eye protection(s) are recommended: Full Face Shield

.

#### **8.2.2 Skin Protection**

Do not get on skin or on clothing.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Butyl Rubber

Neoprene

Nitrile Rubber

. The following protective clothing material(s) are recommended: Apron - Neoprene

### 8.2.3 Respiratory Protection

Avoid breathing of vapors created during cure cycle.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges

. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

## 8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
CARBON BLACK	ACGIH	TWA	3.5 mg/m3	
CARBON BLACK	CMRG	TWA	0.5 mg/m3	
CARBON BLACK	OSHA	TWA	3.5 mg/m3	
PETROLEUM DISTILLATES	OSHA	TWA	2000 mg/m3	
SOLVENT-REFINED HEAVY PARAFFINIC	CMRG	TWA	5 mg/m3	
PETROLEUM DISTILLATES				
2,4,6- TRIS(DIMETHYLAMINOMETHYL)PHENO L	CMRG	TWA	5 ppm	

#### SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Odor, Color, Grade:

PART A: Transparent Light-Yellow Liquid ; Characteristic Odor.  
PART B: Black Liquid.

#### General Physical Form:

Solid

#### Autoignition temperature

No Data Available

#### Flash Point

>=150 °C [Test Method: Closed Cup]

#### Flammable Limits - LEL

No Data Available

#### Flammable Limits - UEL

No Data Available

#### Boiling point

>=95 °F

#### Vapor Density

Not Applicable

#### Vapor Pressure

<=27 psia [@ 131 °F]

#### Specific Gravity

0.90 - 1.20 [Ref Std: WATER=1]

#### pH

Not Applicable

#### Melting point

No Data Available

#### Solubility in Water

Nil

#### Evaporation rate

Not Applicable

#### Volatile Organic Compounds

No Data Available

Kow - Oct/Water partition coef  
Percent volatile  
VOC Less H2O & Exempt Solvents  
Viscosity

No Data Available  
Not Applicable  
No Data Available  
2,500 - 3,500 centipoise

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:**

### 10.1 Conditions to avoid

None known

### 10.2 Materials to avoid

None known

**Hazardous Polymerization:** Hazardous polymerization will not occur.

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Oxides of Nitrogen	Not Specified

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL INFORMATION**

**CHEMICAL FATE INFORMATION**

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of completely cured (or polymerized) wastes in a sanitary landfill.  
As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator.

**EPA Hazardous Waste Number (RCRA):** Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

## SECTION 14: TRANSPORT INFORMATION

### ID Number(s):

DE-7000-0401-8, DE-7000-0402-6, DE-7000-0403-4, DE-7000-0406-7, DE-7000-0439-8, DE-7000-0440-6, DE-7000-0442-2, DE-7000-0443-0, DE-7000-0444-8, DE-7000-0445-5, DE-7000-1624-4, DE-7000-1625-1, DE-7000-1626-9, DE-7000-1627-7, DE-7000-1628-5, DE-7000-1629-3, DE-7000-1630-1, DE-7000-1631-9, DE-7000-1632-7, DE-7000-1636-8, DE-7000-1637-6, DE-7000-1638-4, DE-7000-1639-2, DE-7000-1640-0, DE-7000-1644-2, DE-7000-1645-9, DE-7000-1646-7, DE-7008-0407-8, DE-7110-1902-1, DE-7110-1903-9, DE-7110-1904-7, DE-7110-1905-4, DE-7110-1906-2, DE-7110-1907-0, DE-7110-1908-8, DE-7110-1909-6, DE-7110-1910-4, DE-7110-1911-2, DE-7110-1912-0, DE-7110-1913-8, DE-7110-1914-6, DE-7110-1915-3, DE-7110-1916-1, DE-7110-1917-9, DE-7110-1920-3, DE-7110-1921-1, DE-7110-1924-5, DE-7110-1925-2, DE-7110-1926-0, DE-7110-1927-8, DE-7110-1928-6, DE-7110-1930-2, DE-7110-1931-0, DE-7110-1932-8, DE-7110-1933-6, DE-7110-1934-4, DE-7110-1935-1, DE-7110-1936-9, DE-7110-1937-7, DE-7110-1938-5, DE-7110-1949-2, DE-7110-1950-0, DE-7110-1951-8, DE-7110-1952-6, DE-7110-1953-4, DE-7110-1954-2, DE-7110-3023-4, DE-7110-3024-2, DE-7110-3025-9, DE-7110-3031-7, DE-7110-3032-5, DE-7110-3033-3, DE-7110-3037-4, DE-7110-3038-2, DE-7110-9918-9, DE-7110-9920-5, DE-7110-9922-1, DG-H000-5011-5, FE-5100-4827-8, FE-5100-6024-0, FE-5100-6025-7

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

### 311/312 Hazard Categories:

Fire Hazard - Yes    Pressure Hazard - No    Reactivity Hazard - No    Immediate Hazard - Yes    Delayed Hazard - Yes

### STATE REGULATIONS

Contact 3M for more information.

### CALIFORNIA PROPOSITION 65

<u><b>Ingredient</b></u>	<u><b>C.A.S. No.</b></u>	<u><b>Classification</b></u>
CARBON BLACK	1333-86-4	**Carcinogen

\*\* WARNING: contains a chemical which can cause cancer.

### CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS),

or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

## INTERNATIONAL REGULATIONS

Contact 3M for more information.

<b>This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.</b>
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## SECTION 16: OTHER INFORMATION

### NFPA Hazard Classification

**Health:** 3 **Flammability:** 2 **Reactivity:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

No revision information is available.

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