Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier
3M™ Scotchcast™ Electrical Resin 280 Part B

Product Identification Numbers
LH-A100-0624-1, LH-A100-0624-2, LH-A100-2362-0, LH-A100-2362-1, 80-6116-0626-2, 80-6116-2523-9, 80-7002-8005-2, 80-7002-8008-6
7000058916, 7010399037, 7100150443

1.2. Recommended use and restrictions on use

Recommended use
Electrical, Part B of two part curing system for electrical insulation.

1.3. Supplier’s details

| MANUFACTURER: | 3M |
| DIVISION: | Electrical Markets Division |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification
Serious Eye Damage/Irritation: Category 2A.
Skin Corrosion/Irritation: Category 2.
Respiratory Sensitizer: Category 1.
Skin Sensitizer: Category 1.

2.2. Label elements

Signal word
Danger

Symbols
Health Hazard |
Hazard Statements
Causes serious eye irritation.  
Causes skin irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.

Precautionary Statements

Prevention:
Avoid breathing dust/fume/gas/mist/vapors/spray.  
In case of inadequate ventilation wear respiratory protection.  
Wear eye/face protection.  
Wear protective gloves.  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.

Response:
If experiencing respiratory symptoms:  Call a POISON CENTER or doctor/physician.  
IF IN EYES:  Rinse cautiously with water for several minutes.  Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If eye irritation persists:  Get medical advice/attention.  
IF ON SKIN:  Wash with plenty of soap and water.  
If skin irritation or rash occurs:  Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

53% of the mixture consists of ingredients of unknown acute oral toxicity.  
53% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Castor Oil, Polymer With Maleic Anhydride</td>
<td>68308-83-8</td>
<td>45 -   60 Trade Secret *</td>
</tr>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>26544-38-7</td>
<td>40 -   55 Trade Secret *</td>
</tr>
<tr>
<td>DMP-30</td>
<td>90-72-2</td>
<td>0 -   1 Trade Secret *</td>
</tr>
</tbody>
</table>

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air.  If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye Contact:**
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

**If Swallowed:**
Rinse mouth. If you feel unwell, get medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed
No critical symptoms or effects. See Section 11.1, information on toxicological effects.

### 4.3. Indication of any immediate medical attention and special treatment required
Not applicable.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media
In case of fire: Use a dry chemical extinguisher to extinguish.

### 5.2. Special hazards arising from the substance or mixture
None inherent in this product.

### Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Oxides of Nitrogen</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

### 5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

### 6.3. Methods and material for containment and cleaning up
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. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. 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 SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling
Do not use in a confined area with minimal air exchange. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

8.2. Exposure controls

8.2.1. Engineering controls
No engineering controls required.

8.2.2. Personal protective equipment (PPE)

Eye/face protection
Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (e.g. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection
An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Appearance
   Physical state  Liquid
   Color          Brown, Yellow

Odor
Odor threshold  Maleic Anhydride
pH
Melting point
Boiling Point  >=201 °F
Flash Point    >=201 °F [Test Method: Closed Cup]
Evaporation rate
Flammability (solid, gas)
Flammable Limits(LEL)
Flammable Limits(UEL)
Vapor Pressure
Vapor Density
Density
Specific Gravity  0.96 - 1.06 [Test Method: Tested per ASTM protocol] [Ref Std: WATER=1]
Solubility in Water
Solubility- non-water
Partition coefficient: n-octanol/ water
Autoignition temperature
Decomposition temperature
Viscosity  2,000 centipoise - 5,000 centipoise
Average particle size
Bulk density
Hazardous Air Pollutants
Molecular weight
Volatile Organic Compounds
Percent volatile
Softening point
VOC Less H2O & Exempt Solvents  0 g/l [Details: Parts A and B as mixed]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amine Compounds</td>
<td>Heat</td>
</tr>
<tr>
<td>Irritant Vapors or Gases</td>
<td>Oxidation, heat or reaction - during cure</td>
</tr>
</tbody>
</table>
Refer to section 5.2 for hazardous decomposition products during combustion.

**SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

**Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

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

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

**Skin Contact:**
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

**Eye Contact:**
Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**Ingestion:**
May be harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

**Toxicological Data**
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

### Acute Toxicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Dermal</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td>No data available; calculated ATE 2,000 - 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50  6,200 mg/kg</td>
</tr>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>Inhalation-Dust/Mist</td>
<td>Rat</td>
<td>LC50 &gt; 1.2 mg/l</td>
</tr>
<tr>
<td>DMP-30</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>DMP-30</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50  1,280 mg/kg</td>
</tr>
<tr>
<td>DMP-30</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50  1,000 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
</tbody>
</table>

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### Serious Eye Damage/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>Rabbit</td>
<td>Moderate irritant</td>
</tr>
<tr>
<td>DMP-30</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

### Skin Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>Human</td>
<td>Sensitizing</td>
</tr>
<tr>
<td>DMP-30</td>
<td>Guinea pig</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

### Respiratory Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>similar compoun ds</td>
<td>Sensitizing</td>
</tr>
</tbody>
</table>

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>DMP-30</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
</tbody>
</table>

### Carcinogenicity
For the component/components, either no data are currently available or the data are not sufficient for classification.

### Reproductive Toxicity

### Reproductive and/or Developmental Effects
For the component/components, either no data are currently available or the data are not sufficient for classification.

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrapropenylsuccinic Anhydride</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>similar compoun ds</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>DMP-30</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td></td>
<td>NOAEL Not available</td>
<td></td>
</tr>
</tbody>
</table>

#### Specific Target Organ Toxicity - repeated exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMP-30</td>
<td>Dermal</td>
<td>skin</td>
<td>liver</td>
<td>nervous system</td>
<td>auditory system</td>
<td>hematopoietic system</td>
</tr>
</tbody>
</table>

### Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information.
SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

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

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards
Not applicable

Health Hazards
Respiratory or Skin Sensitization
Serious eye damage or eye irritation
Skin Corrosion or Irritation

15.2. State Regulations
Contact 3M for more information.

15.3. Chemical Inventories
The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification
and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations
Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2  Flammability: 1  Instability: 1  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.

HMIS Hazard Classification
Health: 2  Flammability: 1  Physical Hazard: 0  Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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