3M™ Scotchcast™ Electrical Resin 226 Part B

Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier
3M™ Scotchcast™ Electrical Resin 226 Part B

Product Identification Numbers
LH-A100-0623-8, LH-A100-0623-9, LH-A100-2362-4, LH-A100-2362-5, 80-1300-0280-3
7010320025

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
Reproductive Toxicity: Category 1B.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements
Signal word
Danger

Symbols
Health Hazard |

Pictograms
Hazard Statements
May damage fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure:
- cardiovascular system
- endocrine system
- immune system
- kidney/urinary tract

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:
IF exposed or concerned: Get medical advice/attention.

Storage:
Store locked up.

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

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</td>
<td>8001-79-4</td>
<td>90 - 100</td>
</tr>
<tr>
<td>N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE</td>
<td>2162-74-5</td>
<td>&lt;= 5</td>
</tr>
<tr>
<td>C.I. SOLVENT VIOLET 13</td>
<td>81-48-1</td>
<td>&lt; 0.2</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:
Wash with soap and water. If you feel unwell, get medical attention.
Eye Contact:  
Flush with large amounts of water.  Remove contact lenses if easy to do.  Continue rinsing.  If signs/symptoms persist, 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 fire fighting agent suitable for ordinary combustible material such as water or foam 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>Formaldehyde</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Ammonia</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.

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
For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Do not breathe 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. Avoid release to the environment. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
No special storage requirements.

**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
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

**Eye/face protection**
None required.

**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

**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

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Dark Purple</td>
</tr>
<tr>
<td>Color</td>
<td>Viscous</td>
</tr>
</tbody>
</table>

Specific Physical Form:

<table>
<thead>
<tr>
<th>Odor</th>
<th>Slight Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor threshold</td>
<td>No Data Available</td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>
Boiling Point: > 400 °F
Flash Point: > 400 °F  [Test Method: Closed Cup]
Evaporation rate: Not Applicable
Flammability (solid, gas): Not Applicable
Flammable Limits (LEL): Not Applicable
Flammable Limits (UEL): Not Applicable
Vapor Pressure: No Data Available
Vapor Density: No Data Available
Density: 0.9 - 1 g/ml
Specific Gravity: 0.9 - 1  [Ref Std: WATER=1]
Solubility in Water: Nil
Solubility- non-water: No Data Available
Partition coefficient: n-octanol/ water: No Data Available
Autoignition temperature: No Data Available
Decomposition temperature: No Data Available
Viscosity: 625 centipoise - 775 centipoise
Average particle size: Not Applicable
Bulk density: Not Applicable
Hazardous Air Pollutants: 0
Volatile Organic Compounds: 0
VOC Less H2O & Exempt Solvents: 0

SECTION 10: Stability and reactivity

10.1. Reactivity
This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability
Stable.

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

10.4. Conditions to avoid
None known.

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>None known.</td>
<td></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:
No known health effects.

Skin Contact:
Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact:
Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:
Cardiac Effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal.

Immunological Effects: Signs/symptoms may include alterations in the number of circulating immune cells, allergic skin and/or respiratory reaction, and changes in immune function.

Endocrine Effects: Signs/symptoms may include disruption of gonadal, thyroid, adrenal, or pancreatic function; changes in hormone production; alterations in circulating hormone levels; and/or changes in tissue response to hormones.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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>Ingestion</td>
<td></td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>CASTOR OIL</td>
<td>Dermal</td>
<td></td>
<td>LD50 estimated to be &gt; 5,000</td>
</tr>
<tr>
<td>CASTOR OIL</td>
<td>Ingestion</td>
<td></td>
<td>LD50 estimated to be &gt; 5,000</td>
</tr>
<tr>
<td>N,N-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>N,N-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt;300, &lt;2000 mg/kg</td>
</tr>
<tr>
<td>C.I. SOLVENT VIOLET 13</td>
<td>Dermal</td>
<td>Professio nal judgement</td>
<td>LD50 Not available</td>
</tr>
<tr>
<td>C.I. SOLVENT VIOLET 13</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name | Species | Value
--- | --- | ---
CASTOR OIL | Human | Minimal irritation
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE | Rat | Minimal irritation
C.I. SOLVENT VIOLET 13 | Rabbit | No significant irritation

**Serious Eye Damage/Irritation**
Name | Species | Value
--- | --- | ---
CASTOR OIL | Rabbit | Mild irritant
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE | Rabbit | Mild irritant
C.I. SOLVENT VIOLET 13 | Rabbit | No significant irritation

**Skin Sensitization**
Name | Species | Value
--- | --- | ---
CASTOR OIL | Human | Not classified
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE | Guinea pig | Not classified
C.I. SOLVENT VIOLET 13 | Mouse | Sensitizing

**Respiratory Sensitization**
For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**
Name | Route | Value
--- | --- | ---
CASTOR OIL | In Vitro | Not mutagenic
CASTOR OIL | In vivo | Not mutagenic
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE | In Vitro | Not mutagenic
C.I. SOLVENT VIOLET 13 | In Vitro | Not mutagenic
C.I. SOLVENT VIOLET 13 | In vivo | Not mutagenic

**Carcinogenicity**
Name | Route | Species | Value
--- | --- | --- | ---
C.I. SOLVENT VIOLET 13 | Dermal | Mouse | Not carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**
Name | Route | Value | Species | Test Result | Exposure Duration
--- | --- | --- | --- | --- | ---
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE | Ingestion | Not classified for development | Rat | NOAEL 1 mg/kg/day | premating into lactation
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE | Ingestion | Not classified for male reproduction | Rat | NOAEL 1 mg/kg/day | 28 days
N,N'-BIS(2,6-DIISOPROPYLPHENYL)CARBODIIMIDE | Ingestion | Toxic to female reproduction | Rat | NOAEL 1 mg/kg/day | premating into lactation
C.I. SOLVENT VIOLET 13 | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | premating into lactation
C.I. SOLVENT VIOLET 13 | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | 28 days
C.I. SOLVENT VIOLET 13 | Ingestion | Not classified for development | Rat | NOAEL 1,000 mg/kg/day | premating into lactation

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**
For the component/components, either no data are currently available or the data are not sufficient for classification.
### 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>CASTOR OIL</td>
<td>Ingestion</td>
<td>heart</td>
<td>hematopoietic system</td>
<td>liver</td>
<td>Not classified</td>
<td>Rat</td>
</tr>
<tr>
<td>CASTOR OIL</td>
<td>Ingestion</td>
<td>kidney and/or bladder</td>
<td>Not classified</td>
<td>Mouse</td>
<td>NOAEL 13,000 mg/kg/day</td>
<td>13 weeks</td>
</tr>
<tr>
<td>N,N'-BIS(2,6-DIISOPROPYLPHENYL) CARBODIIMIDE</td>
<td>Ingestion</td>
<td>heart</td>
<td>endocrine system</td>
<td>immune system</td>
<td>kidney and/or bladder</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>N,N'-BIS(2,6-DIISOPROPYLPHENYL) CARBODIIMIDE</td>
<td>Ingestion</td>
<td>bone, teeth, nails, and/or hair</td>
<td>hematopoietic system</td>
<td>liver</td>
<td>Not classified</td>
<td>Rat</td>
</tr>
<tr>
<td>C.I. SOLVENT VIOLET 13</td>
<td>Ingestion</td>
<td>endocrine system</td>
<td>hematopoietic system</td>
<td>heart</td>
<td>skin</td>
<td>gastrointestinal tract</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 on this material and/or its components.

### 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.

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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:**

<table>
<thead>
<tr>
<th>Physical Hazards</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazards</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity (single or repeated exposure)</td>
<td></td>
</tr>
</tbody>
</table>

#### 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 restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the chemical notification requirements of TSCA. All required 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.

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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: 0  Flammability: 1  Instability: 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.

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