



## Safety Data Sheet

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**Document Group:** 36-4091-9      **Version Number:** 2.04  
**Issue Date:** 05/03/21      **Supersedes Date:** 12/16/20

### Product identifier

3M™ Scotchcast™ Electrical Insulating Resin 4N, Part A and B

| ID Number      | UPC | ID Number      | UPC               |
|----------------|-----|----------------|-------------------|
| 80-6116-1677-4 |     | 80-6116-1678-2 |                   |
| 80-6116-1679-0 |     | 80-6116-1680-8 |                   |
| 80-6116-1681-6 |     | 80-6116-1682-4 |                   |
| 80-6116-1683-2 |     | 80-6116-2766-4 | 000-51128-61352-8 |

7100127062, 7100127061, 7100123070, 7100165596, 7100165597, 4100026994, 7100165598, 7100180522

### Recommended use

Electrical

### 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)

### Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:**

24-9848-3, 35-7972-9

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 24-9848-3 | <b>Version Number:</b>  | 5.00     |
| <b>Issue Date:</b>     | 04/03/25  | <b>Supersedes Date:</b> | 03/06/25 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Scotchcast™ Electrical Insulating Resin 4N, Part A and 3M™ Scotchcast™ Electrical Insulating Resin 4, Part A

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Electrical, Part A of Resin 4 & Resin 4N

#### 1.3. Supplier's details

|                      |   |
|----------------------|---|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Electrical Markets Division             |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 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 2B.

Skin Sensitizer: Category 1A.

Reproductive Toxicity: Category 1B.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Exclamation mark | Health Hazard |

##### Pictograms



**Hazard Statements**

Causes eye irritation.  
 May cause an allergic skin reaction.  
 May damage fertility or the unborn child.

**Precautionary Statements****Prevention:**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Avoid breathing dust/fume/gas/mist/vapors/spray.  
 Wear protective gloves.  
 Wash thoroughly after handling.  
 Contaminated work clothing must not be allowed out of the workplace.

**Response:**

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.  
 Wash contaminated clothing before reuse.  
 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**

| Ingredient   | C.A.S. No. | % by Wt                 |
|--|------------|-------------------------|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | 25085-99-8 | 80 - 100 Trade Secret * |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | 68609-97-2 | 3 - 7 Trade Secret *    |

\*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:**

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**

Allergic skin reaction (redness, swelling, blistering, and itching).

**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****Substance**

Carbon monoxide

Carbon dioxide

Toxic Vapor, Gas, Particulate

**Condition**

During Combustion

During Combustion

During Combustion

**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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

**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 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. 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

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:

Safety Glasses with side shields  
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 (eg. 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  
Half facepiece or full facepiece supplied-air respirator

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  
Color

Liquid  
Amber

**Specific Physical Form:**

Resin

**Odor**

Mild Epoxy

**Odor threshold**

*No Data Available*

**pH**

*No Data Available*

**Melting point**

*No Data Available*

**Boiling Point**

$\geq 201$  °F

**Flash Point**

$\geq 201$  °F [*Test Method: Closed Cup*]

**Evaporation rate**

*No Data Available*

**Flammability (solid, gas)**

Not Applicable

**Flammable Limits(LEL)**

*No Data Available*

**Flammable Limits(UEL)**

*No Data Available*

**Vapor Pressure**

$\leq 27$  psia [*@ 131 °F*]

**Vapor Density**

*No Data Available*

**Density**

1.16 g/ml

**Specific Gravity**

1.16 [*Ref Std: WATER=1*]

**Solubility in Water**

Negligible

**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**

3,000 centipoise - 5,000 centipoise

**Average particle size**

*No Data Available*

**Bulk density**

*No Data Available*

**Hazardous Air Pollutants**

*No Data Available*

**Molecular weight**

*No Data Available*

**Volatile Organic Compounds**

*No Data Available*

**Percent volatile**

Negligible

**Softening point**

*No Data Available*

**VOC Less H2O & Exempt Solvents**

*No Data Available*

**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****Substance****Condition**

None known.

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.

#### Skin Contact:

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

#### Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### 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:

#### 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

| Name   | Route     | Species | Value  |
|--|-----------|---------|--|
| Overall product  | Ingestion |         | No data available; calculated ATE >5,000 mg/kg |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Dermal    | Rat     | LD50 > 1,600 mg/kg                             |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Ingestion | Rat     | LD50 > 1,000 mg/kg                             |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Dermal    | Rabbit  | LD50 > 4,000 mg/kg                             |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Ingestion | Rat     | LD50 > 2,000 mg/kg                             |

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

| Name | Species | Value |
|------|---------|-------|
|------|---------|-------|



|  |        |               |
|--|--------|---------------|
|  |        |               |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Rabbit | Mild irritant |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Rabbit | Mild irritant |

### Serious Eye Damage/Irritation

| Name   | Species | Value                     |
|--|---------|---------------------------|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Rabbit  | Moderate irritant         |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Rabbit  | No significant irritation |

### Skin Sensitization

| Name   | Species          | Value       |
|--|------------------|-------------|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Human and animal | Sensitizing |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Guinea pig       | Sensitizing |

### Respiratory Sensitization

| Name   | Species | Value          |
|--|---------|----------------|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Human   | Not classified |

### Germ Cell Mutagenicity

| Name   | Route    | Value  |
|--|----------|--|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | In vivo  | Not mutagenic  |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | In vivo  | Not mutagenic  |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | In Vitro | Some positive data exist, but the data are not sufficient for classification |

### Carcinogenicity

| Name   | Route  | Species | Value  |
|--|--------|---------|--|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Dermal | Mouse   | Some positive data exist, but the data are not sufficient for classification |

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

| Name   | Route     | Value                                  | Species | Test Result         | Exposure Duration    |
|--|-----------|--|---------|---------------------|----------------------|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Ingestion | Not classified for female reproduction | Rat     | NOAEL 750 mg/kg/day | 2 generation         |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Ingestion | Not classified for male reproduction   | Rat     | NOAEL 750 mg/kg/day | 2 generation         |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Dermal    | Not classified for development         | Rabbit  | NOAEL 300 mg/kg/day | during organogenesis |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Ingestion | Not classified for development         | Rat     | NOAEL 750 mg/kg/day | 2 generation         |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Ingestion | Not classified for male reproduction   | Rat     | NOAEL 150 mg/kg/day | 2 generation         |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Dermal    | Not classified for development         | Rat     | NOAEL 200 mg/kg/day | during organogenesis |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Ingestion | Not classified for development         | Rabbit  | NOAEL 375 mg/kg/day | during gestation     |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Ingestion | Toxic to female reproduction           | Rat     | NOAEL 10 mg/kg/day  | 2 generation         |

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

| Name  | Route      | Target Organ(s)        | Value  | Species                | Test Result         | Exposure Duration |
|---|------------|------------------------|--|------------------------|---------------------|-------------------|
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available |                   |

**Specific Target Organ Toxicity - repeated exposure**

| Name   | Route     | Target Organ(s)  | Value          | Species | Test Result           | Exposure Duration |
|--|-----------|--|----------------|---------|-----------------------|-------------------|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Dermal    | liver  | Not classified | Rat     | NOAEL 1,000 mg/kg/day | 2 years           |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Dermal    | nervous system   | Not classified | Rat     | NOAEL 1,000 mg/kg/day | 13 weeks          |
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | Ingestion | auditory system   heart   endocrine system   hematopoietic system   liver   eyes   kidney and/or bladder | Not classified | Rat     | NOAEL 1,000 mg/kg/day | 28 days           |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Dermal    | nervous system   respiratory system  | Not classified | Rat     | NOAEL 100 mg/kg/day   | 14 weeks          |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Dermal    | blood   liver   eyes   kidney and/or bladder   | Not classified | Rat     | NOAEL 100 mg/kg/day   | 13 weeks          |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Ingestion | immune system  | Not classified | Rat     | NOAEL 750 mg/kg/day   | 13 weeks          |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Ingestion | gastrointestinal tract   | Not classified | Rat     | NOAEL 100 mg/kg/day   | 13 weeks          |
| OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]DERIVATIVES        | Ingestion | hematopoietic system   nervous system   eyes   | Not classified | Rat     | NOAEL 750 mg/kg/day   | 13 weeks          |

**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.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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

Reproductive toxicity

Respiratory or Skin Sensitization

Serious eye damage or eye 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 Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information.

The components of this product 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.

**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: 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.

#### 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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| <b>Issue Date:</b>     | 08/29/24  | <b>Supersedes Date:</b> | 04/01/24 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Scotchcast™ Electrical Insulating Resin 4N, Part B

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Electrical, Part B of Resin 4N

#### 1.3. Supplier's details

|                      |   |
|----------------------|---|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Electrical Markets Division             |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 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

Acute Toxicity (oral): Category 4.  
Serious Eye Damage/Irritation: Category 1.  
Skin Corrosion/Irritation: Category 1.  
Skin Sensitizer: Category 1A.  
Reproductive Toxicity: Category 2.  
Carcinogenicity: Category 1B.  
Specific Target Organ Toxicity (repeated exposure): Category 1.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Corrosion | Exclamation mark | Health Hazard |

##### Pictograms

**Hazard Statements**

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

May cause cancer.

Causes damage to organs through prolonged or repeated exposure:

blood or blood-forming organs |

respiratory system |

endocrine system |

gastrointestinal tract |

immune system |

liver |

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, protective clothing, and eye/face protection.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

**Response:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Storage:**

Store locked up.

**Disposal:**

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

**2.3. Hazards not otherwise classified**

May cause chemical gastrointestinal burns.

**Supplemental Information:**

Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines.

18% of the mixture consists of ingredients of unknown acute oral toxicity.  
 19% of the mixture consists of ingredients of unknown acute dermal toxicity.  
 77% of the mixture consists of ingredients of unknown acute inhalation toxicity.

### SECTION 3: Composition/information on ingredients

| Ingredient  | C.A.S. No.    | % by Wt                |
|---|---------------|------------------------|
| Styrenated Phenol   | 61788-44-1    | 25 - 70 Trade Secret * |
| N-AMINOETHYLPIPERAZINE  | 140-31-8      | 5 - 22 Trade Secret *  |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT<br>PETROLEUM EXTRACTS             | 64742-11-6    | 5 - 20 Trade Secret *  |
| Alkyl Acids, Reaction Products With<br>Triethylenetetramine           | Trade Secret* | 5 - 17 Trade Secret *  |
| Alykl Acids, Reaction Products With TETA And<br>DGEBA                 | Trade Secret* | 4 - 10 Trade Secret *  |
| Reaction product of cycloaliphatic amine with aromatic<br>epoxy resin | Trade Secret* | 1 - 8 Trade Secret *   |
| Thermal cracked residuum (petroleum)                                  | 64741-80-6    | 1 - 7 Trade Secret *   |
| PETROLEUM DISTILLATES   | Trade Secret* | 1 - 7 Trade Secret *   |
| TRIS(2,4,6-<br>DIMETHYLAMINOMONOMETHYL)PHENOL                         | 90-72-2       | 1 - 5 Trade Secret *   |
| TRIETHYLENETETRAMINE  | 112-24-3      | <= 2 Trade Secret *    |
| BIS[(DIMETHYLAMINO)METHYL]PHENOL                                      | 71074-89-0    | <= 1 Trade Secret *    |
| CARBON BLACK  | 1333-86-4     | < 1 Trade Secret *     |

\*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 flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

##### Eye Contact:

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

##### If Swallowed:

Rinse mouth. Do not induce vomiting. Get immediate medical attention.

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

Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

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

None inherent in this product.

### Hazardous Decomposition or By-Products

#### Substance

Amine Compounds  
Carbon monoxide  
Carbon dioxide  
Oxides of Nitrogen

#### Condition

During Combustion  
During Combustion  
During Combustion  
During Combustion

### 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

## 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. For large spills, if necessary, get assistance from professional spill clean up team. For small spills, carefully neutralize spill by adding appropriate dilute acid such as vinegar. Work slowly to avoid boiling or spattering. Continue to add neutralizing agent until reaction stops. Let cool before collecting. Or use a commercially available caustic (alkaline or basic) spill clean-up kit. Follow kit directions exactly. 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 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (gloves, respirators, etc.) as required.

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

Store away from acids.

## SECTION 8: Exposure controls/personal protection



## 8.1. Control parameters

### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient           | C.A.S. No. | Agency | Limit type                                  | Additional Comments          |
|----------------------|------------|--------|---|------------------------------|
| TRIETHYLENETETRAMINE | 112-24-3   | AIHA   | TWA:6 mg/m <sup>3</sup> (1 ppm)             | SKIN                         |
| CARBON BLACK         | 1333-86-4  | ACGIH  | TWA(inhalable fraction):3 mg/m <sup>3</sup> | A3: Confirmed animal carcin. |
| CARBON BLACK         | 1333-86-4  | OSHA   | TWA:3.5 mg/m <sup>3</sup>                   |                              |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

## 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

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:

Full Face Shield

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.

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

If this product is used in a manner that presents a higher potential for exposure (eg. 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 – Butyl rubber

#### 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

Half facepiece or full facepiece supplied-air respirator

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  
Color

Liquid  
Black

**Specific Physical Form:**

Resin

**Odor**

Moderate Amine

**Odor threshold**

*No Data Available*

**pH**

10 - 12

**Melting point**

*No Data Available*

**Boiling Point**

607 °F

**Flash Point**

No flash point

**Evaporation rate**

*No Data Available*

**Flammability (solid, gas)**

Not Applicable

**Flammable Limits(LEL)**

*No Data Available*

**Flammable Limits(UEL)**

*No Data Available*

**Vapor Pressure**

4.0 mmHg

**Vapor Density**

*No Data Available*

**Density**

1.03 g/ml

**Specific Gravity**

1.03 [Ref Std: WATER=1]

**Solubility In Water**

660 ppm [@ 77 °F]

**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**

3,000 centipoise - 4,500 centipoise [@ 25 °C]

**Average particle size**

*No Data Available*

**Bulk density**

*No Data Available*

**Molecular weight**

*Not Applicable*

**Volatile Organic Compounds**

*No Data Available*

**Percent volatile**

3 - 5 %

**VOC Less H2O & Exempt Solvents**

*No Data Available*

**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**

None known.

**10.5. Incompatible materials**

Strong acids

No Data Available

**10.6. Hazardous decomposition products****Substance****Condition**

None known.

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:**

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

May cause additional health effects (see below).

##### **Skin Contact:**

May be harmful in contact with 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.

##### **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.

##### **Ingestion:**

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.

May cause additional health effects (see below).

#### **Additional Health Effects:**

##### **Prolonged or repeated exposure may cause target organ effects:**

Hematopoietic Effects: Signs/symptoms may include generalized weakness, fatigue and alterations in numbers of circulating blood cells.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

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.

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

**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.

**Respiratory Effects:** Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

**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.

#### **Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

| <b>Ingredient</b>  | <b>CAS No.</b> | <b>Class Description</b>       | <b>Regulation</b>                           |
|--|----------------|--------------------------------|---|
| Fuel oils, residual (heavy)                                | 64741-80-6     | Grp. 2B: Possible human carc.  | International Agency for Research on Cancer |
| PETROLEUM DISTILLATES                                      | Trade Secret   | Grp. 2B: Possible human carc.  | International Agency for Research on Cancer |
| Soot (as found in occupational exposure of chimney sweeps) | 1333-86-4      | Grp. 1: Carcinogenic to humans | International Agency for Research on Cancer |
| Soots  | 1333-86-4      | Known To Be Human Carcinogen.  | National Toxicology Program Carcinogens     |
| Carbon black   | 1333-86-4      | Grp. 2B: Possible human carc.  | International Agency for Research on Cancer |

#### **Additional Information:**

Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines.

#### **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**

| <b>Name</b>   | <b>Route</b>                   | <b>Species</b>         | <b>Value</b>  |
|---|--------------------------------|------------------------|---|
| Overall product   | Dermal                         |                        | No data available; calculated ATE >2,000 - =5,000 mg/kg |
| Overall product   | Inhalation-Dust/Mist(4 hr)     |                        | No data available; calculated ATE >5 - =12.5 mg/l       |
| Overall product   | Ingestion                      |                        | No data available; calculated ATE >300 - =2,000 mg/kg   |
| Styrenated Phenol   | Dermal                         | Rat                    | LD50 > 2,000 mg/kg                                      |
| Styrenated Phenol   | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                                      |
| N-AMINOETHYLPIPERAZINE                                    | Dermal                         | Rabbit                 | LD50 865 mg/kg  |
| N-AMINOETHYLPIPERAZINE                                    | Ingestion                      | Rat                    | LD50 1,470 mg/kg  |
| Alkyl Acids, Reaction Products With Triethylenetetramine  | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                                      |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT<br>PETROLEUM EXTRACTS | Dermal                         | similar compounds      | LD50 > 3,000 mg/kg                                      |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT<br>PETROLEUM EXTRACTS | Inhalation-Dust/Mist (4 hours) | similar compounds      | LC50 > 5 mg/l   |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT<br>PETROLEUM EXTRACTS | Ingestion                      | similar compounds      | LD50 > 5,000 mg/kg                                      |
| Alkyl Acids, Reaction Products With Triethylenetetramine  | Dermal                         | similar health hazards | LD50 estimated to be > 5,000 mg/kg                      |
| PETROLEUM DISTILLATES                                     | Dermal                         | similar compounds      | LD50 > 2,000 mg/kg                                      |
| PETROLEUM DISTILLATES                                     | Inhalation-Dust/Mist           | similar compound       | LC50 4.1 mg/l   |

|   |                                |                     |  |
|---|--------------------------------|---------------------|--|
|   | (4 hours)                      | ds                  |  |
| PETROLEUM DISTILLATES                     | Ingestion                      | similar compound ds | LD50 4,320 mg/kg                       |
| Thermal cracked residuum (petroleum)      | Dermal                         | similar compound ds | LD50 > 2,000 mg/kg                     |
| Thermal cracked residuum (petroleum)      | Inhalation-Dust/Mist (4 hours) | similar compound ds | LC50 4.1 mg/l                          |
| Thermal cracked residuum (petroleum)      | Ingestion                      | similar compound ds | LD50 4,320 mg/kg                       |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL | Dermal                         | Rat                 | LD50 1,280 mg/kg                       |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL | Ingestion                      | Rat                 | LD50 1,000 mg/kg                       |
| TRIETHYLENETETRAMINE                      | Dermal                         | Rat                 | LD50 1,465 mg/kg                       |
| TRIETHYLENETETRAMINE                      | Ingestion                      | Rat                 | LD50 1,591 mg/kg                       |
| BIS[(DIMETHYLAMINO)METHYL]PHENOL          | Ingestion                      |                     | LD50 estimated to be 300 - 2,000 mg/kg |
| CARBON BLACK                              | Dermal                         | Rabbit              | LD50 > 3,000 mg/kg                     |
| CARBON BLACK                              | Ingestion                      | Rat                 | LD50 > 8,000 mg/kg                     |

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

| Name   | Species             | Value                     |
|--|---------------------|---------------------------|
| Styrenated Phenol  | Rabbit              | No significant irritation |
| N-AMINOETHYLPIPERAZINE                                   | Rabbit              | Corrosive                 |
| Alkyl Acids, Reaction Products With Triethylenetetramine | In vitro data       | No significant irritation |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS   | similar compound ds | Mild irritant             |
| PETROLEUM DISTILLATES                                    | similar compound ds | No significant irritation |
| Thermal cracked residuum (petroleum)                     | similar compound ds | No significant irritation |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL                | Rabbit              | Corrosive                 |
| TRIETHYLENETETRAMINE                                     | Rabbit              | Corrosive                 |
| BIS[(DIMETHYLAMINO)METHYL]PHENOL                         | similar compound ds | Corrosive                 |
| CARBON BLACK   | Rabbit              | No significant irritation |

### Serious Eye Damage/Irritation

| Name   | Species             | Value                     |
|--|---------------------|---------------------------|
| Styrenated Phenol  | Rabbit              | Mild irritant             |
| N-AMINOETHYLPIPERAZINE                                   | Rabbit              | Corrosive                 |
| Alkyl Acids, Reaction Products With Triethylenetetramine | In vitro data       | Severe irritant           |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS   | similar compound ds | No significant irritation |
| PETROLEUM DISTILLATES                                    | similar compound ds | Mild irritant             |
| Thermal cracked residuum (petroleum)                     | similar compound ds | Mild irritant             |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL                | Rabbit              | Corrosive                 |
| TRIETHYLENETETRAMINE                                     | Rabbit              | Corrosive                 |
| BIS[(DIMETHYLAMINO)METHYL]PHENOL                         | similar             | Corrosive                 |

|              |           |                           |
|--------------|-----------|---------------------------|
|              | compounds |                           |
| CARBON BLACK | Rabbit    | No significant irritation |

### Skin Sensitization

| Name   | Species           | Value          |
|--|-------------------|----------------|
| Styrenated Phenol  | Mouse             | Sensitizing    |
| N-AMINOETHYLPIPERAZINE                                   | Guinea pig        | Sensitizing    |
| Alkyl Acids, Reaction Products With Triethylenetetramine | Guinea pig        | Sensitizing    |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS   | similar compounds | Not classified |
| PETROLEUM DISTILLATES                                    | Guinea pig        | Not classified |
| Thermal cracked residuum (petroleum)                     | similar compounds | Not classified |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL                | Guinea pig        | Not classified |
| TRIETHYLENETETRAMINE                                     | Guinea pig        | 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  |
|--|----------|--|
| N-AMINOETHYLPIPERAZINE                                   | In vivo  | Not mutagenic  |
| N-AMINOETHYLPIPERAZINE                                   | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Alkyl Acids, Reaction Products With Triethylenetetramine | In Vitro | Not mutagenic  |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS   | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS   | In vivo  | Some positive data exist, but the data are not sufficient for classification |
| PETROLEUM DISTILLATES                                    | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Thermal cracked residuum (petroleum)                     | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL                | In Vitro | Not mutagenic  |
| TRIETHYLENETETRAMINE                                     | In vivo  | Not mutagenic  |
| TRIETHYLENETETRAMINE                                     | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| CARBON BLACK   | In Vitro | Not mutagenic  |
| CARBON BLACK   | In vivo  | Some positive data exist, but the data are not sufficient for classification |

### Carcinogenicity

| Name   | Route     | Species           | Value            |
|--|-----------|-------------------|------------------|
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS | Dermal    | similar compounds | Carcinogenic     |
| PETROLEUM DISTILLATES                                  | Dermal    | similar compounds | Carcinogenic     |
| Thermal cracked residuum (petroleum)                   | Dermal    | similar compounds | Carcinogenic     |
| TRIETHYLENETETRAMINE                                   | Dermal    | Mouse             | Not carcinogenic |
| CARBON BLACK   | Dermal    | Mouse             | Not carcinogenic |
| CARBON BLACK   | Ingestion | Mouse             | Not carcinogenic |

|              |            |     |              |
|--------------|------------|-----|--------------|
| CARBON BLACK | Inhalation | Rat | Carcinogenic |
|--------------|------------|-----|--------------|

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name   | Route     | Value                                  | Species           | Test Result          | Exposure Duration              |
|--|-----------|--|-------------------|----------------------|--------------------------------|
| N-AMINOETHYLPIPERAZINE                                 | Ingestion | Not classified for female reproduction | Rat               | NOAEL 598 mg/kg/day  | prematuring & during gestation |
| N-AMINOETHYLPIPERAZINE                                 | Ingestion | Not classified for male reproduction   | Rat               | NOAEL 409 mg/kg/day  | 32 days                        |
| N-AMINOETHYLPIPERAZINE                                 | Ingestion | Toxic to development                   | Rabbit            | NOAEL 75 mg/kg/day   | during gestation               |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS | Ingestion | Not classified for male reproduction   | similar compounds | NOAEL 125 mg/kg/day  | 13 weeks                       |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS | Dermal    | Toxic to development                   | similar compounds | NOAEL 5 mg/kg/day    | during gestation               |
| PETROLEUM DISTILLATES                                  | Dermal    | Toxic to development                   | similar compounds | NOAEL 0.05 mg/kg/day | during gestation               |
| Thermal cracked residuum (petroleum)                   | Dermal    | Toxic to development                   | similar compounds | NOAEL 0.05 mg/kg/day | during gestation               |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL              | Ingestion | Not classified for male reproduction   | Rat               | NOAEL 150 mg/kg/day  | 2 generation                   |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL              | Ingestion | Not classified for female reproduction | Rat               | NOAEL 50 mg/kg/day   | 2 generation                   |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL              | Ingestion | Not classified for development         | Rabbit            | NOAEL 15 mg/kg/day   | during gestation               |
| TRIETHYLENETETRAMINE                                   | Dermal    | Not classified for development         | Rabbit            | NOAEL 125 mg/kg/day  | during organogenesis           |
| TRIETHYLENETETRAMINE                                   | Ingestion | Not classified for development         | Rat               | NOAEL 750 mg/kg/day  | during organogenesis           |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

| Name   | Route      | Target Organ(s)        | Value  | Species                | Test Result         | Exposure Duration |
|--|------------|------------------------|--|------------------------|---------------------|-------------------|
| N-AMINOETHYLPIPERAZINE                                   | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification |                        | NOAEL Not available |                   |
| Alkyl Acids, Reaction Products With Triethylenetetramine | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available |                   |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS   | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL not available |                   |
| TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL                | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available |                   |
| TRIETHYLENETETRAMINE                                     | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available |                   |

**Specific Target Organ Toxicity - repeated exposure**

| Name   | Route      | Target Organ(s)  | Value  | Species           | Test Result                  | Exposure Duration     |
|--|------------|--|--|-------------------|------------------------------|-----------------------|
| N-AMINOETHYLPIPERAZINE                                 | Dermal     | skin   | Not classified   | Rat               | NOAEL 100 mg/kg/day          | 29 days               |
| N-AMINOETHYLPIPERAZINE                                 | Dermal     | hematopoietic system   nervous system   kidney and/or bladder  | Not classified   | Rat               | NOAEL 1,000 mg/kg/day        | 29 days               |
| N-AMINOETHYLPIPERAZINE                                 | Inhalation | respiratory system   | Causes damage to organs through prolonged or repeated exposure   | Rat               | NOAEL 0.2 mg/m <sup>3</sup>  | 13 weeks              |
| N-AMINOETHYLPIPERAZINE                                 | Inhalation | hematopoietic system   eyes   kidney and/or bladder  | Not classified   | Rat               | NOAEL 53.8 mg/m <sup>3</sup> | 13 weeks              |
| N-AMINOETHYLPIPERAZINE                                 | Ingestion  | heart   endocrine system   hematopoietic system   liver   nervous system   kidney and/or bladder   | Not classified   | Rat               | NOAEL 598 mg/kg/day          | 28 days               |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS | Dermal     | endocrine system   gastrointestinal tract   hematopoietic system   liver   immune system   kidney and/or bladder   | May cause damage to organs though prolonged or repeated exposure | similar compounds | LOAEL 30 mg/kg/day           | 90 days               |
| PETROLEUM DISTILLATES                                  | Dermal     | hematopoietic system   | Causes damage to organs through prolonged or repeated exposure   | similar compounds | NOAEL 1.06 mg/kg/day         | 13 weeks              |
| PETROLEUM DISTILLATES                                  | Dermal     | liver   immune system  | May cause damage to organs though prolonged or repeated exposure | similar compounds | NOAEL 10.6 mg/kg/day         | 13 weeks              |
| Thermal cracked residuum (petroleum)                   | Dermal     | hematopoietic system   | Causes damage to organs through prolonged or repeated exposure   | similar compounds | NOAEL 1.06 mg/kg/day         | 13 weeks              |
| Thermal cracked residuum (petroleum)                   | Dermal     | liver   immune system  | May cause damage to organs though prolonged or repeated exposure | similar compounds | NOAEL 10.6 mg/kg/day         | 13 weeks              |
| TRIS(2,4,6-DIMETHYLAMINOMETHYL)PHENOL                  | Dermal     | skin   | Not classified   | Rat               | NOAEL 25 mg/kg/day           | 4 weeks               |
| TRIS(2,4,6-DIMETHYLAMINOMETHYL)PHENOL                  | Dermal     | liver   nervous system   auditory system   hematopoietic system   eyes   | Not classified   | Rat               | NOAEL 125 mg/kg/day          | 4 weeks               |
| TRIS(2,4,6-DIMETHYLAMINOMETHYL)PHENOL                  | Ingestion  | heart   endocrine system   hematopoietic system   liver   muscles   nervous system   kidney and/or bladder   respiratory system   vascular system   auditory system   skin   gastrointestinal tract   bone, teeth, nails, and/or hair   immune system   eyes | Not classified   | Rat               | NOAEL 150 mg/kg/day          | 90 days               |
| CARBON BLACK   | Inhalation | pneumoconiosis   | Not classified   | Human             | NOAEL Not available          | occupational exposure |



**Aspiration Hazard**

| Name                                 | Value             |
|--------------------------------------|-------------------|
| PETROLEUM DISTILLATES                | Aspiration hazard |
| Thermal cracked residuum (petroleum) | Aspiration hazard |

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.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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**

Acute toxicity

Carcinogenicity

Hazard Not Otherwise Classified (HNOC)

Reproductive toxicity

|  |
|--|
| Respiratory or Skin Sensitization                            |
| Serious eye damage or eye irritation                         |
| Skin Corrosion or Irritation                                 |
| Specific target organ toxicity (single or repeated exposure) |

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this product 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.

**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:** 3 **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.

### HMIS Hazard Classification

**Health:** \*3 **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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