**Safety Data Sheet**



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| **Document group:** | 36-4091-9 | **Version number:** | 4.00 |
| **Issue Date:** | 2025/08/27 | **Supersedes Date:** | 2020/12/22 |

# SECTION 1: Identification

### 1.1. Product identifier
3M™ Scotchcast™ Electrical Insulating Resin 4N, Part A and B

**Product Identification Numbers**
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

### 1.2. Recommended use and restrictions on use

**Recommended use**
Electrical

### 1.3. Supplier's details

**Company:** 3M Canada Company
**Division:** Electrical Markets Division
**Address:** 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1

**Telephone:** (800) 364-3577
**E Mail:**

### 1.4. Emergency telephone number
Medical Emergency Telephone:1-800-3M HELPS / 1800 364 3577

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS) or Article Information Sheet (AIS) 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

Transport in accordance with applicable regulations.

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. The manufacturer MAKES NO WARRANTIES, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF PERFORMANCE, COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the product is fit

for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

**3M Canada SDSs are available at www.3M.ca**

# Safety Data Sheet



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|---|---|---|---|
| **Document group:** | 35-7972-9 | **Version number:** | 7.02 |
| **Issue Date:** | 2025/10/15 | **Supersedes Date:** | 2025/08/28 |

This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

## SECTION 1: Identification

### 1.1. Product identifier
3M™ Scotchcast™ Electrical Insulating Resin 4N, Part B

**Product Identification Numbers**
LH-A100-1885-2 LH-A100-1949-3 LH-A100-1949-4 LH-A100-1949-5 LH-A100-1949-6 LH-A100-1949-7

### 1.2. Recommended use and restrictions on use

**Intended Use**
Electrical

**Specific Use**
Part B of Resin 4N

**Restrictions on use**
Not applicable

### 1.3. Supplier's details

| | |
|---|---|
| **Company:** | 3M Canada Company |
| **Division:** | Electrical Markets Division |
| **Address:** | 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1 |
| **Telephone:** | (800) 364-3577 |
| **Website:** | www.3M.ca |

### 1.4. Emergency telephone number
Medical Emergency Telephone:1-800-3M HELPS / 1800 364 3577

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture
Acute Toxicity (oral): Category 4.
Skin Corrosion/Irritation: Category 1B.
Serious Eye Damage/Irritation: Category 1.
Skin Sensitizer: Category 1A.
Carcinogenicity: Category 1B.

Reproductive Toxicity: Category 2.
Specific Target Organ Toxicity (repeated exposure): Category 1.
Health Hazards Not Otherwise Classified - 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. May cause cancer. Suspected of damaging fertility or the unborn child. May cause chemical gastrointestinal burns.

Causes damage to organs through prolonged or repeated exposure: blood or blood-forming organs | respiratory system. May cause damage to organs through prolonged or repeated exposure: endocrine system | gastrointestinal tract | immune system | kidney/urinary tract | liver.

**Precautionary statements**

**Prevention:**
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapours. Wash exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing, eye protection, face protection, and if needed, respiratory protection (see SDS Section 8).

**Response:**
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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. Get medical attention if you feel unwell. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

**Storage:**
Store locked up.

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

**2.3. Other hazards**
None known.

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

This material is a mixture.

| Ingredient | C.A.S. No. | % by Wt | Common Name |
|---|---|---|---|
| Styrenated Phenol | 61788-44-1 | 30 - 60 Trade Secret * | Phenol, styrenated |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS | 64742-11-6 | 10 - 30 Trade Secret * | Extracts, petroleum, heavy naphthenic distillate solvent solvent extraction process. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C20 through C50. This stream is likely to contain 5 wt. % or more o |
| N-Aminoethylpiperazine | 140-31-8 | 10 - 30 Trade Secret * | 1-Piperazineethanamine |
| Alkyl Acids, Reaction Products With Triethylenetetramine | Trade Secret | 5 - 17 Trade Secret * | Not Applicable |
| Alykl Acids, Reaction Products With TETA And DGEBA | Trade Secret | 4 - 10 Trade Secret * | Not Applicable |
| Reaction product of cycloaliphatic amine with aromatic epoxy resin | Trade Secret | 3 - 10 Trade Secret * | Not Applicable |
| PETROLEUM DISTILLATES | Trade Secret | 1 - 7 Trade Secret * | Not Applicable |
| Thermal cracked residuum (petroleum) | 64741-80-6 | 1 - 7 Trade Secret * | Residues, petroleum, thermal crackedion from distillation of the product from a thermal cracking process. It consists predominantly of unsaturated hydrocarbons having carbon numbers predominantly greater than C20 and boiling above approximately 350.degree |
| Triethylenetetramine | 112-24-3 | 0.1 - 5 Trade Secret * | 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)- |
| Tris(2,4,6-dimethylaminomonomethyl)phenol | 90-72-2 | 1 - 5 Trade Secret * | Phenol, 2,4,6-tris[(dimethylamino)methyl]- |
| Bis[(Dimethylamino)Methyl]Phenol | 71074-89-0 | 0.1 - 1 Trade Secret * | Phenol, bis[(dimethylamino)methyl]- |
| Carbon Black | 1333-86-4 | 0.1 - 1 Trade Secret * | Carbon black |

Reaction product of cycloaliphatic amine with aromatic epoxy resin is a non-hazardous material according to WHMIS criteria. Specific information has been withheld as a trade secret.
Alykl Acids, Reaction Products With TETA And DGEBA is a non-hazardous material according to WHMIS criteria. Specific information has been withheld as a trade secret.
Heavy Naphthenic Distillate Solvent Petroleum Extractsis a hazardous material according to WHMIS criteria.Refer to Section 15 for further trade secret information
N-Aminoethylpiperazineis a hazardous material according to WHMIS criteria.Refer to Section 15 for further trade secret information
Alkyl Acids, Reaction Products With Triethylenetetramineis a hazardous material according to WHMIS criteria.Refer to Section 15 for further trade secret information
Bis[(Dimethylamino)Methyl]Phenolis a hazardous material according to WHMIS criteria.Refer to Section 15 for further trade secret information
Triethylenetetramineis a hazardous material according to WHMIS criteria.Refer to Section 15 for further trade secret information
Thermal cracked residuum (petroleum)is a hazardous material according to WHMIS criteria.Refer to Section 15 for further trade secret information

Petroleum Distillatesis a hazardous material according to WHMIS criteria.Refer to Section 15 for further trade secret information

*The concentration (exact or range) of this component 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. Unsuitable extinguishing media**
None Determined

**5.3. Special hazards arising from the substance or mixture**
None inherent in this product.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Amine Compounds | During Combustion |
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Oxides of Nitrogen | During Combustion |

**5.4. Special protection 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 vapours, 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. 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/vapours/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. Store locked up.

## 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/m3(1 ppm) | SKIN |
| Carbon Black | 1333-86-4 | ACGIH | TWA(inhalable fraction):3 mg/m3 | |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
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/vapours/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.

For prolonged or repeated contact, gloves made from the following material(s) are recommended (breakthrough times are >4 hours): Butyl Rubber

Any glove recommended for prolonged/repeated contact is also suitable for short-term/splash contact.

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 a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

**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 vapours 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**

| | |
|---|---|
| **Physical state** | Liquid |
| **Specific Physical Form:** | Resin |
| **Colour** | Black |
| **Odour** | Moderate Amine |
| **Odour threshold** | *No Data Available* |
| **pH** | 10 - 12 |
| **Melting point/Freezing point** | *No Data Available* |
| **Boiling point** | 319.4 ºC |
| **Flash Point** | No flash point |
| **Evaporation rate** | *No Data Available* |
| **Flammability** | Not Applicable |
| **Flammable Limits(LEL)** | *No Data Available* |

| | |
|---|---|
| **Flammable Limits(UEL)** | *No Data Available* |
| **Vapour Pressure** | 533.3 Pa |
| **Relative Vapour Density** | *No Data Available* |
| **Density** | 1.03 g/ml |
| **Relative density** | 1.03 [*Ref Std:*WATER=1] |
| **Water solubility** | 660 ppm [@ 77 ºF] |
| **Solubility- non-water** | *No Data Available* |
| **Partition coefficient: n-octanol/ water** | *No Data Available* |
| **Autoignition temperature** | *No Data Available* |
| **Decomposition temperature** | *No Data Available* |
| **Kinematic Viscosity** | 4,369 mm2/sec |
| **Volatile Organic Compounds** | *No Data Available* |
| **Percent volatile** | 3 - 5 % |
| **VOC Less H2O & Exempt Solvents** | *No Data Available* |
| **Average particle size** | *No Data Available* |
| **Bulk density** | *No Data Available* |
| **Molecular weight** | *Not Applicable* |

| | |
|---|---|
| **Particle Characteristics** | *Not Applicable* |

## 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 coloured 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.

| Ingredient | CAS No. | Class Description | Regulation |
|---|---|---|---|
| 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**

| Name | Route | Species | Value |
|---|---|---|---|
| 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 PETROLEUM EXTRACTS | Dermal | similar compounds | LD50 > 3,000 mg/kg |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS | Inhalation-Dust/Mist (4 hours) | similar compounds | LC50 > 5 mg/l |
| HEAVY NAPHTHENIC DISTILLATE SOLVENT 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 (4 hours) | similar compounds | LC50 4.1 mg/l |
| PETROLEUM DISTILLATES | Ingestion | similar compounds | LD50 4,320 mg/kg |
| Thermal cracked residuum (petroleum) | Dermal | similar compounds | LD50 > 2,000 mg/kg |
| Thermal cracked residuum (petroleum) | Inhalation-Dust/Mist (4 hours) | similar compounds | LC50 4.1 mg/l |
| Thermal cracked residuum (petroleum) | Ingestion | similar compounds | 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 compoun | Mild irritant |

| | | |
|---|---|---|
| | ds | |
| PETROLEUM DISTILLATES | similar compounds | No significant irritation |
| Thermal cracked residuum (petroleum) | similar compounds | No significant irritation |
| Tris(2,4,6-dimethylaminomonomethyl)phenol | Rabbit | Corrosive |
| Triethylenetetramine | Rabbit | Corrosive |
| Bis[(Dimethylamino)Methyl]Phenol | similar compounds | 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 compounds | No significant irritation |
| PETROLEUM DISTILLATES | similar compounds | Mild irritant |
| Thermal cracked residuum (petroleum) | similar compounds | Mild irritant |
| Tris(2,4,6-dimethylaminomonomethyl)phenol | Rabbit | Corrosive |
| Triethylenetetramine | Rabbit | Corrosive |
| Bis[(Dimethylamino)Methyl]Phenol | similar compounds | Corrosive |
| 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 | premating & 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 | during |

| | | | | | |
|---|---|---|---|---|---|
| | | | | mg/kg/day | 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/m3 | 13 weeks |
| N-Aminoethylpiperazine | Inhalation | hematopoietic system \| eyes \| kidney and/or bladder | Not classified | Rat | NOAEL 53.8 mg/m3 | 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-dimethylaminomonomethyl)phenol | Dermal | skin | Not classified | Rat | NOAEL 25 mg/kg/day | 4 weeks |
| Tris(2,4,6-dimethylaminomonomethyl)phenol | Dermal | liver \| nervous system \| auditory system \| hematopoietic system \| eyes | Not classified | Rat | NOAEL 125 mg/kg/day | 4 weeks |
| Tris(2,4,6-dimethylaminomonomethyl)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

No data available.

## 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.

## 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. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Global inventory status**

Contact 3M for more 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.

**Trade Secret Information:**

| HMIRA Registry Number: | Filing date: | Claim status: | Date of decision: |
|---|---|---|---|
| 11690 | 13/07/2017 | Claim for exemption has been granted. | 22/12/2022 |

# SECTION 16: Other information

**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.**
**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).

| | | | |
|---|---|---|---|
| **Document group:** | 35-7972-9 | **Version number:** | 7.02 |
| **Issue Date:** | 2025/10/15 | **Supersedes Date:** | 2025/08/28 |

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. The manufacturer MAKES NO WARRANTIES, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF PERFORMANCE, COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

**3M Canada SDSs are available at www.3M.ca**

# Safety Data Sheet



| | | | |
|---|---|---|---|
| **Document group:** | 24-9848-3 | **Version number:** | 5.00 |
| **Issue Date:** | 2025/08/14 | **Supersedes Date:** | 2025/05/01 |

This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

## SECTION 1: Identification

### 1.1. Product identifier

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

**Product Identification Numbers**

LH-A100-0560-7 LH-A100-0560-8 LH-A100-0560-9 LH-A100-0561-0 LH-A100-0561-1
LH-A100-0561-2 UU-0132-4814-9

### 1.2. Recommended use and restrictions on use

**Intended Use**

Electrical

**Specific Use**

Part A of Resin 4 & Resin 4N

**Restrictions on use**

Not applicable

### 1.3. Supplier's details

| | |
|---|---|
| **Company:** | 3M Canada Company |
| **Division:** | Electrical Markets Division |
| **Address:** | 1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1 |
| **Telephone:** | (800) 364-3577 |
| **Website:** | www.3M.ca |

### 1.4. Emergency telephone number

Medical Emergency Telephone:1-800-3M HELPS / 1800 364 3577

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture

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 vapours. Wash exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

**Response:**
IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical advice. Take off contaminated clothing and wash it before reuse.

**Storage:**
Store locked up.

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

**2.3. Other hazards**
None known.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | C.A.S. No. | % by Wt | Common Name |
|---|---|---|---|
| 2,2-Bis(p-hydroxyphenyl)propane diglycidyl ether polymer | 25085-99-8 | 80 - 100 Trade Secret * | Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer |
| Oxirane, Mono[(C12-14-Alkyloxy)Methyl]Derivatives | 68609-97-2 | 3 - 7 Trade Secret * | Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. |

*The concentration (exact or range) of this component 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. Unsuitable extinguishing media**
None Determined

**5.3. Special hazards arising from the substance or mixture**
None inherent in this product.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Toxic Vapor, Gas, Particulate | During Combustion |

**5.4. Special protection 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 vapours, 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/vapours/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. Store locked up.

## 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/vapours/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 (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron

material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

**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 vapours 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**

| | |
|---|---|
| **Physical state** | Liquid |
| **Specific Physical Form:** | Resin |
| **Colour** | Amber |
| **Odour** | Mild Epoxy |
| **Odour threshold** | *No Data Available* |
| **pH** | *No Data Available* |
| **Melting point/Freezing point** | *No Data Available* |
| **Boiling point** | >= 93.9 ºC |
| **Flash Point** | >= 93.9 ºC [*Test Method:*Closed Cup] |
| **Evaporation rate** | *No Data Available* |
| **Flammability** | Not Applicable |
| **Flammable Limits(LEL)** | *No Data Available* |
| **Flammable Limits(UEL)** | *No Data Available* |
| **Vapour Pressure** | <= 186,158.4 Pa [@ 55 ºC ] |
| **Relative Vapour Density** | *No Data Available* |
| **Density** | 1.16 g/ml |
| **Relative density** | 1.16 [*Ref Std:*WATER=1] |
| **Water solubility** | 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* |
| **Kinematic Viscosity** | 3,879 mm2/sec |
| **Volatile Organic Compounds** | *No Data Available* |
| **Percent volatile as Text** | Negligible |
| **VOC Less H2O & Exempt Solvents** | *No Data Available* |
| **Average particle size** | *No Data Available* |
| **Bulk density** | *No Data Available* |
| **Molecular weight** | *No Data Available* |
| **Softening point** | *No Data Available* |

| | |
|---|---|
| **Particle Characteristics** | *Not Applicable* |

## 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 | Ingestion | Not classified for male reproduction | Rat | NOAEL 750 | 2 generation |

| | | | | | |
|---|---|---|---|---|---|
| diglycidyl ether polymer | | | | mg/kg/day | |
| 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

No data available.

## 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.

## 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. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Global inventory status**

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. 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 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 new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. 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.

## SECTION 16: Other information

**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.**
**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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**3M Canada SDSs are available at www.3M.ca**