



## Safety Data Sheet

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## SECTION 1: Identification

### 1.1. Product identifier

QS2013-3T-3C Transition Splice Kit (Resin 4N)

#### Product Identification Numbers

78-8120-1194-4 80-6109-8293-8

### 1.2. Recommended use and restrictions on use

#### Recommended use

Electrical, SPLICING MEDIUM VOLTAGE LEAD SHEATHED POWER CABLE

### 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 / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

**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, 05-4288-6, 35-7972-9, 40-0153-3, 06-4861-8, 34-7684-3

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](http://www.3M.ca)**



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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

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

#### 1.4. Emergency telephone number

Medical Emergency Telephone: 1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Acute Toxicity (oral): Category 4.

Acute Toxicity (dermal): Category 4.

Serious Eye Damage/Irritation: Category 1.

Skin Corrosion/Irritation: Category 1B.

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. Harmful in contact with skin. 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: respiratory system |

### 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/vapours/spray. Wear protective gloves, protective clothing, and eye/face protection. Do not eat, drink or smoke when using this product. Wash exposed skin 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 or 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 CENTRE or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it 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. Other hazards

May cause chemical gastrointestinal burns.

18% of the mixture consists of ingredients of unknown acute oral toxicity.

36% of the mixture consists of ingredients of unknown acute dermal toxicity.

100% of the mixture consists of ingredients of unknown acute inhalation toxicity.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>	<b>Common Name</b>
Styrenated Phenol	61788-44-1	30 - 60 Trade Secret *	Phenol, styrenated
N-Aminoethylpiperazine	140-31-8	5 - 22	1-Piperazineethanamine
HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS	64742-11-6	5 - 20	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
Alkyl Acids, Reaction Products With Triethylenetetramine	Trade Secret	5 - 17	Not Applicable
Alykl Acids, Reaction Products With TETA And DGEBA	Trade Secret	4 - 10	Not Applicable
Reaction product of cycloaliphatic amine with aromatic epoxy resin	Trade Secret	1 - 8	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
Tris(2,4,6-dimethylaminomonomethyl)phenol	90-72-2	1 - 5 Trade Secret *	Phenol, 2,4,6-tris[(dimethylamino)methyl]-
Triethylenetetramine	112-24-3	<= 2	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-
Bis[(Dimethylamino)Methyl]Phenol	71074-89-0	<= 1	Phenol, bis[(dimethylamino)methyl]-
Carbon Black	1333-86-4	< 1	Carbon black

Alykl Acids, Reaction Products With TETA And DGEBA is a non-hazardous Trade Secret material according to WHMIS criteria.

Reaction product of cycloaliphatic amine with aromatic epoxy resin is a non-hazardous Trade Secret material according to WHMIS criteria.

Bis[(Dimethylamino)Methyl]Phenol is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

Triethylenetetramine is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

Heavy Naphthenic Distillate Solvent Petroleum Extracts is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

N-Aminoethylpiperazine is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

Alkyl Acids, Reaction Products With Triethylenetetramine is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

Thermal cracked residuum (petroleum) is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

Petroleum Distillates is a hazardous Trade Secret material according to WHMIS criteria. Refer to Section 15 for further information.

\*The actual concentration of this ingredient 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

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

## 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. 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/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.

**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>	

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.

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 vapours and particulates

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

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Specific Physical Form:</b>	Resin
<b>Colour</b>	Black
<b>Odour</b>	Amine
<b>Odour threshold</b>	No Data Available
<b>pH</b>	10 - 12
<b>Melting point/Freezing point</b>	No Data Available
<b>Boiling point</b>	319.4 °C
<b>Flash Point</b>	No flash point
<b>Evaporation rate</b>	No Data Available
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	No Data Available
<b>Flammable Limits(UEL)</b>	No Data Available
<b>Vapour Pressure</b>	533.3 Pa
<b>Vapour Density and/or Relative Vapour Density</b>	No Data Available
<b>Density</b>	1.03 g/ml
<b>Relative density</b>	1.03 [Ref Std: WATER=1]
<b>Water solubility</b>	660 ppm [ @ 77 °F ]
<b>Solubility- non-water</b>	No Data Available
<b>Partition coefficient: n-octanol/ water</b>	No Data Available
<b>Autoignition temperature</b>	No Data Available
<b>Decomposition temperature</b>	No Data Available
<b>Viscosity/Kinematic Viscosity</b>	3,000 mPa-s - 4,500 mPa-s [ @ 25 °C ]
<b>Volatile Organic Compounds</b>	No Data Available
<b>Percent volatile</b>	3 - 5 %
<b>VOC Less H2O &amp; Exempt Solvents</b>	No Data Available
<b>Average particle size</b>	No Data Available



<b>Bulk density</b>	<i>No Data Available</i>
<b>Molecular weight</b>	<i>Not Applicable</i>

## 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

None known.

#### Condition

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:**

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:**

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.

**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 >1,000 - =2,000 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 compound ds	LD50 > 3,000 mg/kg
HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS	Inhalation-Dust/Mist (4 hours)	similar compound ds	LC50 > 5 mg/l
HEAVY NAPHTHENIC DISTILLATE SOLVENT PETROLEUM EXTRACTS	Ingestion	similar compound ds	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 compound ds	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	Rabbit	LD50 550 mg/kg
Triethylenetetramine	Ingestion	Rat	LD50 2,500 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 compounds	Mild irritant
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
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
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

**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		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	Dermal	endocrine system	May cause damage to organs	similar	LOAEL 30	90 days

DISTILLATE SOLVENT PETROLEUM EXTRACTS		gastrointestinal tract   hematopoietic system   liver   immune system   kidney and/or bladder	though prolonged or repeated exposure	compound ds	mg/kg/day	
PETROLEUM DISTILLATES	Dermal	liver   immune system	May cause damage to organs though prolonged or repeated exposure	similar compound ds	NOAEL 10.6 mg/kg/day	13 weeks
PETROLEUM DISTILLATES	Dermal	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	similar compound ds	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 compound ds	NOAEL 10.6 mg/kg/day	13 weeks
Thermal cracked residuum (petroleum)	Dermal	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	similar compound ds	NOAEL 1.06 mg/kg/day	13 weeks
Tris(2,4,6- dimethylaminomonomethy l)phenol	Dermal	skin   liver   nervous system   auditory system   hematopoietic system   eyes	Not classified	Rat	NOAEL 125 mg/kg/day	28 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:** 11690  
**Filing date:** 13/07/2017

**Claim status:** Claim for exemption has been filed.  
**Date of decision:**

**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).

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<b>Issue Date:</b>	2023/03/08	<b>Supersedes Date:</b>	2022/08/23

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## Article Information Sheet

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This Article Information Sheet is provided as a courtesy in response to a customer request. A Safety Data Sheet (SDS) has not been prepared for these product(s) because they are articles. Articles are not subject to the Hazardous Products Act or Regulations. As defined in the act: "Article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product.

<b>Document group:</b>	05-4288-6	<b>Version number:</b>	1.02
<b>Issue Date:</b>	2020/10/09	<b>Supersedes Date:</b>	2019/08/14

### SECTION 1: Identification

#### 1.1. Product identifier

Scotch-Seal™ Tapes, Pads, and Strips 2229

##### Product Identification Numbers

2229	11-0023-7476-4	80-0000-0789-0	80-6105-9441-0	80-6107-3291-1
80-6107-3292-9	80-6109-2897-2	80-6109-2916-0	80-6114-3998-7	80-6114-5741-9

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

##### Intended Use

Electrical insulating and moisture seal

##### Specific Use

Moisture and Corrosion Protection

##### Restrictions on use

Not applicable

#### 1.3. Supplier's details

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

#### 1.4. Emergency telephone number

Medical Emergency Telephone: 1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

### SECTION 2: Hazard identification



This product is exempt from hazard classification according to the Hazardous Products Act because it meets the manufactured article exemption.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt	Common Name
Nonregulated Fillers	Mixture	50 - 60	Not Applicable
Synthetic Rubber Mixture	Mixture	30 - 40	Not Applicable
Asphalt	8052-42-4	5 - 12	Asphalt
Carbon Black	1333-86-4	1 - 5	Carbon black

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**Inhalation:**

No need for first aid is anticipated.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

No need for first aid is anticipated.

### SECTION 5: Fire-fighting measures

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

#### 6.2. Environmental precautions

Not applicable.

#### 6.3. Methods and material for containment and cleaning up

Not applicable.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

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

No special storage requirements.

### SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Specific Physical Form:</b>	Rubber tape strip or pad with paper liner
<b>Colour</b>	Black
<b>Odour</b>	Rubber
<b>Odour threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point/Freezing point</b>	<i>No Data Available</i>
<b>Boiling point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	<i>No Data Available</i>
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapour Pressure</b>	<i>Not Applicable</i>
<b>Viscosity/Kinematic Viscosity      Viscosity/Kinematic Viscosity</b>	<i>Not Applicable</i>
<b>Relative density</b>	Approximately 1.2 [Test Method: Tested per ASTM protocol] [Ref Std: WATER=1]
<b>Water solubility</b>	Nil
<b>Solubility- non-water</b>	<i>Not Applicable</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>Not Applicable</i>
<b>Viscosity/Kinematic Viscosity</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>Percent volatile</b>	
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>Not Applicable</i>
<b>Molecular weight</b>	<i>No Data Available</i>

#### Nanoparticles

This material contains nanoparticles.

## SECTION 10: Stability and reactivity

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

## SECTION 11: Toxicological information

#### Inhalation:

No health effects are expected

#### Skin Contact:

No health effects are expected

**Eye Contact:**

No health effects are expected

**Ingestion:**

No health effects are expected

**Additional Information:**

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

## SECTION 12: Ecological information

No data available.

## SECTION 13: Disposal considerations

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

## 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

This product is an article as defined by CEPA and is exempt from DSL inventory listing.

## 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:** 0 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

<b>Document group:</b>	05-4288-6	<b>Version number:</b>	1.02
<b>Issue Date:</b>	2020/10/09	<b>Supersedes Date:</b>	2019/08/14

**Reason for Reissue**

Conversion to GHS format SDS.

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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.

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## Safety Data Sheet

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<b>Issue Date:</b>	2020/10/19	<b>Supersedes Date:</b>	2020/03/05

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

#### 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

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

#### 1.4. Emergency telephone number

Medical Emergency Telephone: 1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Serious Eye Damage/Irritation: Category 2B.  
Skin Sensitizer: Category 1A.

#### 2.2. Label elements

##### Signal word

Warning

##### Symbols

Exclamation mark |

#### Pictograms



#### Hazard statements

Causes eye irritation. May cause an allergic skin reaction.

#### Precautionary statements

##### Prevention:

Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves. Wash exposed skin 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. Take off contaminated clothing and wash it before reuse.

##### Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/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	5 - 10 Trade Secret *	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

\*The actual concentration of this ingredient 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**

See Section 11.1. Information on toxicological effects.

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

Not applicable

## SECTION 5: Fire-fighting measures

**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

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

None inherent in this product.

**Hazardous Decomposition or By-Products****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 equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

## 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

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

**6.3. Methods and material for containment and cleaning up**

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Avoid breathing 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.

## **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/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:

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 vapours and particulates

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

# **SECTION 9: Physical and chemical properties**

## **9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Specific Physical Form:</b>	Resin
<b>Colour</b>	Amber
<b>Odour</b>	Epoxy



<b>Odour threshold</b>	<i>No Data Available</i>
<b>pH</b>	<i>No Data Available</i>
<b>Melting point/Freezing point</b>	<i>No Data Available</i>
<b>Boiling point</b>	$\geq 93.9\text{ }^{\circ}\text{C}$
<b>Flash Point</b>	$\geq 93.9\text{ }^{\circ}\text{C}$ [Test Method: Closed Cup]
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	<i>No Data Available</i>
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Vapour Pressure</b>	$\leq 186,158.4\text{ Pa}$ [ @ 55 °C ]
<b>Viscosity/Kinematic Viscosity      Viscosity/Kinematic Viscosity</b>	<i>No Data Available</i>
<b>Density</b>	1.16 g/ml
<b>Relative density</b>	1.16 [Ref Std: WATER=1]
<b>Water solubility</b>	Negligible
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity/Kinematic Viscosity</b>	3,000 mPa-s - 5,000 mPa-s
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>Percent volatile</b>	
<b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents</b>	<i>No Data Available</i>
<b>Average particle size</b>	<i>No Data Available</i>
<b>Bulk density</b>	<i>No Data Available</i>
<b>Molecular weight</b>	<i>No Data Available</i>
<b>Softening point</b>	<i>No Data Available</i>

**Nanoparticles**

This material does not contain nanoparticles.

## 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.

#### 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 17,100 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	Mild irritant

##### 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	Dermal	Not classified for development	Rat	NOAEL 200 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
Oxirane, Mono[(C12-14-Alkyloxy)Methyl]Derivatives	Dermal	heart   blood   liver   nervous system   kidney and/or bladder	Not classified	Rabbit	NOAEL 4,000 mg/kg	24 hours

#### 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

#### 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.

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

## 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](http://www.3M.ca)**



## Safety Data Sheet

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<b>Issue Date:</b>	2022/09/21	<b>Supersedes Date:</b>	2021/02/10

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

### SECTION 1: Identification

#### 1.1. Product identifier

3M Sheath Wrap Roll

#### Product Identification Numbers

CE-1006-9128-2	CE-1006-9129-0	UU-0102-5729-1	UU-0102-5730-9	UU-0102-5913-1
UU-0102-5914-9	UU-0102-5915-6	UU-0102-5936-2	UU-0102-5937-0	UU-0102-5938-8
UU-0102-6051-9	UU-0102-6052-7	UU-0112-2563-6		

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

##### Intended Use

Industrial use

##### Restrictions on use

Not applicable

#### 1.3. Supplier's details

<b>Company:</b>	3M Canada Company
<b>Division:</b>	Electronics & Energy Business Spons
<b>Address:</b>	1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1
<b>Telephone:</b>	(800) 364-3577
<b>Website:</b>	www.3M.ca

#### 1.4. Emergency telephone number

Medical Emergency Telephone: 1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Respiratory Sensitizer: Category 1.

Skin Sensitizer: Category 1.

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

#### 2.2. Label elements

Signal word

Danger

### Symbols

Exclamation mark | Health Hazard |

### Pictograms



### Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Causes damage to organs through prolonged or repeated exposure: respiratory system |

### Precautionary statements

#### Prevention:

Do not breathe dust/fume/gas/mist/vapours/spray. In case of inadequate ventilation wear respiratory protection. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash exposed skin 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 experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

#### Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/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
Oxide glass chemicals	65997-17-3	40 - 70	Glass, oxide, chemicals
Polymer	Trade Secret	30 - 60	Not Applicable
Iron Oxide (Fe <sub>3</sub> O <sub>4</sub> )	1317-61-9	1 - 5	Iron oxide (Fe <sub>3</sub> O <sub>4</sub> )
P,P'-Methylenebis(phenyl isocyanate)	101-68-8	1 - 5 Trade Secret *	Benzene, 1,1'-methylenebis[4-isocyanato-
Diphenylmethane-2,4'-diisocyanate	5873-54-1	0.5 - 1.5 Trade Secret *	Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-
CHROMIUM (CR+6)	18540-29-9	0.001 - 0.02	No Data Available

Polymer is a non-hazardous Trade Secret material according to WHMIS criteria.

\*The actual concentration of this ingredient 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:

No need for first aid is anticipated.

#### If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

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

Allergic respiratory reaction (difficulty breathing, wheezing, cough, and tightness of chest). Allergic skin reaction (redness, swelling, blistering, and itching). 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

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

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Cyanide	During Combustion
Oxides of Nitrogen	During Combustion

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

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

## 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Collect as much of the spilled material as possible. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Clean up residue. 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 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. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

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

Store away from strong bases. Store away from oxidizing agents. Store away from amines.

## 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.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional Comments</b>
P,P'-Methylenebis(phenyl isocyanate)	101-68-8	ACGIH	TWA:0.005 ppm	
CHROMIUM (HEXAVALENT COMPOUNDS)	18540-29-9	ACGIH	TWA(as Cr(IV), inhalable fraction):0.0002 mg/m <sup>3</sup> ;STEL(as Cr(IV), inhalable fraction):0.0005 mg/m <sup>3</sup>	
CHROMIUM (VI), WATER SOLUBLE COMPOUNDS	18540-29-9	ACGIH	TWA(as Cr(IV), inhalable fraction):0.0002 mg/m <sup>3</sup> ;TWA(as Cr):0.05 mg/m <sup>3</sup> ;STEL(as Cr(IV), inhalable fraction):0.0005 mg/m <sup>3</sup>	Dermal/Respiratory Sensitizer
Chromium(6+), insoluble compounds	18540-29-9	ACGIH	TWA(as Cr):0.01 mg/m <sup>3</sup>	
Water-soluble inorganic Cr(6+) compounds	18540-29-9	ACGIH	TWA(as Cr):0.05 mg/m <sup>3</sup>	
Oxide glass chemicals	65997-17-3	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m <sup>3</sup> ;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m <sup>3</sup>	

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

Provide ventilated enclosure for curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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

None required.

#### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

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

Apron – Nitrile

#### 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

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	Solid
Specific Physical Form:	Resin Sat.Glass Tape
Colour	Black
Odour	Slight Odour
Odour threshold	<i>Not Applicable</i>
pH	<i>No Data Available</i>
Melting point/Freezing point	<i>Not Applicable</i>
Boiling point	<i>Not Applicable</i>
Flash Point	174.4 °C [Test Method: Closed Cup]
Evaporation rate	<i>Not Applicable</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Vapour Pressure	<i>No Data Available</i>
Vapour Density and/or Relative Vapour Density	<i>No Data Available</i>
Density	<i>No Data Available</i>
Relative density	<i>Not Applicable</i>
Water solubility	Nil
Solubility- non-water	Nil [Details: water solubility]
Partition coefficient: n-octanol/ water	<i>No Data Available</i>

<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity/Kinematic Viscosity</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>Percent volatile</b>	<i>No Data Available</i>
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>No Data Available</i>

## 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

Sparks and/or flames

### 10.5. Incompatible materials

Alcohols

Amines

Strong bases

Strong oxidizing agents

### 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. Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below).

#### **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:**

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

**Ingestion:**

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

**Additional Health Effects:****Prolonged or repeated exposure may cause target organ effects:**

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.

**Carcinogenicity:**

<b>Ingredient</b>	<b>CAS No.</b>	<b>Class Description</b>	<b>Regulation</b>
Chromium Hexavalent Compounds	18540-29-9	Known To Be Human Carcinogen.	National Toxicology Program Carcinogens
Chromium[VI] compounds	18540-29-9	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Hexavalent chromium compounds	18540-29-9	Cancer hazard	OSHA Carcinogens
Glass Wool Fibers (Inhalable), Certain	65997-17-3	Anticipated human carcinogen	National Toxicology Program Carcinogens

**Additional Information:**

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

**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 >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
Oxide glass chemicals	Dermal		LD50 estimated to be > 5,000 mg/kg
Oxide glass chemicals	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
P,P'-Methylenebis(phenyl isocyanate)	Dermal	Rabbit	LD50 > 5,000 mg/kg
P,P'-Methylenebis(phenyl isocyanate)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
P,P'-Methylenebis(phenyl isocyanate)	Ingestion	Rat	LD50 31,600 mg/kg
Iron Oxide (Fe3O4)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (Fe3O4)	Ingestion	Not available	LD50 3,700 mg/kg
Diphenylmethane-2,4'-diisocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Diphenylmethane-2,4'-diisocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
Diphenylmethane-2,4'-diisocyanate	Ingestion	Rat	LD50 31,600 mg/kg
CHROMIUM (CR+6)	Dermal		LD50 estimated to be 200 - 1,000 mg/kg
CHROMIUM (CR+6)	Inhalation-Dust/Mist		LC50 estimated to be 0 - 0.05 mg/l
CHROMIUM (CR+6)	Ingestion		LD50 estimated to be 5 - 50 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

**3M Sheath Wrap Roll**

Name	Species	Value
Oxide glass chemicals	Professional judgement	No significant irritation
P,P'-Methylenebis(phenyl isocyanate)	official classification	Irritant
Iron Oxide (FE3O4)	Rabbit	No significant irritation
Diphenylmethane-2,4'-diisocyanate	official classification	Irritant
CHROMIUM (CR+6)	Human	Corrosive

**Serious Eye Damage/Irritation**

Name	Species	Value
Oxide glass chemicals	Professional judgement	No significant irritation
P,P'-Methylenebis(phenyl isocyanate)	official classification	Severe irritant
Iron Oxide (FE3O4)	Rabbit	No significant irritation
Diphenylmethane-2,4'-diisocyanate	official classification	Severe irritant
CHROMIUM (CR+6)	similar health hazards	Corrosive

**Skin Sensitization**

Name	Species	Value
P,P'-Methylenebis(phenyl isocyanate)	official classification	Sensitizing
Iron Oxide (FE3O4)	Human	Not classified
Diphenylmethane-2,4'-diisocyanate	official classification	Sensitizing
CHROMIUM (CR+6)	Human and animal	Sensitizing

**Respiratory Sensitization**

Name	Species	Value
P,P'-Methylenebis(phenyl isocyanate)	Human	Sensitizing
Diphenylmethane-2,4'-diisocyanate	Human	Sensitizing
CHROMIUM (CR+6)	Human	Not classified

**Germ Cell Mutagenicity**

Name	Route	Value
Oxide glass chemicals	In Vitro	Some positive data exist, but the data are not sufficient for classification
P,P'-Methylenebis(phenyl isocyanate)	In Vitro	Some positive data exist, but the data are not sufficient for classification
Iron Oxide (FE3O4)	In Vitro	Not mutagenic
Diphenylmethane-2,4'-diisocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
CHROMIUM (CR+6)	In Vitro	Some positive data exist, but the data are not

		sufficient for classification
CHROMIUM (CR+6)	In vivo	Mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Oxide glass chemicals	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
P,P'-Methylenebis(phenyl isocyanate)	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Iron Oxide (Fe <sub>3</sub> O <sub>4</sub> )	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Diphenylmethane-2,4'-diisocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
CHROMIUM (CR+6)	Not Specified	Human	Carcinogenic

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
P,P'-Methylenebis(phenyl isocyanate)	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
Diphenylmethane-2,4'-diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
CHROMIUM (CR+6)	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.0002 mg/l	3 generation
CHROMIUM (CR+6)	Inhalation	Not classified for male reproduction	Rat	NOAEL 0.0002 mg/l	3 generation
CHROMIUM (CR+6)	Inhalation	Not classified for development	Rat	NOAEL 0.0002 mg/l	3 generation
CHROMIUM (CR+6)	Ingestion	Toxic to female reproduction	Mouse	LOAEL 6 mg/kg/day	12 weeks
CHROMIUM (CR+6)	Ingestion	Toxic to male reproduction	Mouse	LOAEL 6 mg/kg/day	12 weeks
CHROMIUM (CR+6)	Ingestion	Toxic to development	Mouse	LOAEL 57 mg/kg/day	during gestation

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
P,P'-Methylenebis(phenyl isocyanate)	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Diphenylmethane-2,4'-diisocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
CHROMIUM (CR+6)	Dermal	kidney and/or bladder	Not classified	Human	NOAEL Not available	
CHROMIUM (CR+6)	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
CHROMIUM (CR+6)	Ingestion	kidney and/or bladder	Causes damage to organs	Human	NOAEL Not available	
CHROMIUM (CR+6)	Ingestion	hematopoietic system   liver	Not classified	Human	NOAEL Not available	
CHROMIUM (CR+6)	Ingestion	nervous system	Not classified	Human	NOAEL Not available	poisoning and/or abuse

**Specific Target Organ Toxicity - repeated exposure**

**3M Sheath Wrap Roll**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Oxide glass chemicals	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
P,P'-Methylenebis(phenyl isocyanate)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
Iron Oxide (Fe <sub>3</sub> O <sub>4</sub> )	Inhalation	pulmonary fibrosis   pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Diphenylmethane-2,4'-diisocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
CHROMIUM (CR+6)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
CHROMIUM (CR+6)	Inhalation	immune system	Not classified	Rat	NOAEL Not available	90 days
CHROMIUM (CR+6)	Inhalation	heart   endocrine system   hematopoietic system   liver   nervous system   kidney and/or bladder	Not classified	Rat	NOAEL 0.02 mg/l	2 years
CHROMIUM (CR+6)	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 100 mg/kg/day	28 days
CHROMIUM (CR+6)	Ingestion	nervous system	Not classified	Rat	LOAEL 98 mg/kg/day	28 days
CHROMIUM (CR+6)	Ingestion	liver	Not classified	Multiple animal species	NOAEL Not available	
CHROMIUM (CR+6)	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL Not available	1 generation

**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 completely cured (or polymerized) material in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

**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.

**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.

<b>Document group:</b>	40-0153-3	<b>Version number:</b>	1.02
<b>Issue Date:</b>	2022/09/21	<b>Supersedes Date:</b>	2021/02/10

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## Article Information Sheet

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This Article Information Sheet is provided as a courtesy in response to a customer request. A Safety Data Sheet (SDS) has not been prepared for these product(s) because they are articles. Articles are not subject to the Hazardous Products Act or Regulations. As defined in the act: "Article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product.

<b>Document group:</b>	34-7684-3	<b>Version number:</b>	1.03
<b>Issue Date:</b>	2023/01/12	<b>Supersedes Date:</b>	2020/10/16

### SECTION 1: Identification

#### 1.1. Product identifier

Black EPDM Tubing (on plastic core)

#### Product Identification Numbers

78-8125-9775-1

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

##### Intended Use

Electrical

##### Restrictions on use

Not applicable

#### 1.3. Supplier's details

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

#### 1.4. Emergency telephone number

Medical Emergency Telephone: 1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

### SECTION 2: Hazard identification

This product is exempt from hazard classification according to the Hazardous Products Act because it meets the manufactured article exemption.

### SECTION 3: Composition/information on ingredients

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>	<b>Common Name</b>
Black EPDM Tubing Composite	None	100	No Data Available

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

**Inhalation:**

No need for first aid is anticipated.

**Skin Contact:**

No need for first aid is anticipated.

**Eye Contact:**

No need for first aid is anticipated.

**If Swallowed:**

No need for first aid is anticipated.

## **SECTION 5: Fire-fighting measures**

In case of fire: Use a carbon dioxide or dry chemical extinguisher to extinguish.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Not applicable.

### **6.2. Environmental precautions**

Not applicable.

### **6.3. Methods and material for containment and cleaning up**

Not applicable.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

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

No special storage requirements.

## **SECTION 8: Exposure controls/personal protection**

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Solid
<b>Colour</b>	Black
<b>Odour</b>	Rubber
<b>Odour threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point/Freezing point</b>	<i>No Data Available</i>
<b>Boiling point</b>	<i>Not Applicable</i>
<b>Flash Point</b>	No flash point
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapour Density and/or Relative Vapour Density</b>	<i>Not Applicable</i>
<b>Density</b>	<i>No Data Available</i>
<b>Relative density</b>	<i>No Data Available</i>
<b>Water solubility</b>	<i>Not Applicable</i>
<b>Solubility- non-water</b>	<i>Not Applicable</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>Not Applicable</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity/Kinematic Viscosity</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>Percent volatile</b>	<i>No Data Available</i>
<b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents</b>	<i>No Data Available</i>
<b>Molecular weight</b>	<i>Not Applicable</i>

## SECTION 10: Stability and reactivity

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

## SECTION 11: Toxicological information

### Inhalation:

No health effects are expected

### Skin Contact:

No health effects are expected

### Eye Contact:

No health effects are expected

### Ingestion:

No health effects are expected

### Additional Information:

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

## SECTION 12: Ecological information

No data available.

**SECTION 13: Disposal considerations**

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

**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**

This product is an article as defined by CEPA and is exempt from DSL inventory listing.

**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:** 0 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

<b>Document group:</b>	34-7684-3	<b>Version number:</b>	1.03
<b>Issue Date:</b>	2023/01/12	<b>Supersedes Date:</b>	2020/10/16

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## Safety Data Sheet

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<b>Document group:</b>	06-4861-8	<b>Version number:</b>	11.05
<b>Issue Date:</b>	2021/06/08	<b>Supersedes Date:</b>	2021/03/25

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

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ P55/R Lubricant, Red

#### Product Identification Numbers

78-8096-4318-8	78-8126-9891-4	78-9237-1424-6	80-0002-2677-1	80-6116-0479-6
CE-1006-8786-8	CE-1006-9277-7	CE-1006-9374-2	GE-7000-2862-6	GE-7000-2863-4
JE-4100-0831-0	UU-0082-9519-6			

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

##### Intended Use

Electrical

##### Specific Use

ELECTRICAL LUBRICATING GREASE

##### Restrictions on use

Not applicable

#### 1.3. Supplier's details

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

#### 1.4. Emergency telephone number

Medical Emergency Telephone: 1-800-3M HELPS / 1-800-364-3577; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Not classified according to the Canadian Hazardous Products Regulation.

#### 2.2. Label elements

**Signal word**

Not applicable.

**Symbols**

Not applicable.

**Pictograms**

Not applicable.

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients**

This material is a mixture.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>	<b>Common Name</b>
1,1,2,3,3,3-HEXAFLUORO-1-PROPENE, OXIDIZED, POLYMD.	69991-67-9	95 - 98	1-Propene, 1,1,2,3,3,3-hexafluoro-, oxidized, polymd.
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	<= 5	Fumed amorphous silica, crystalline-free
C.I. PIGMENT RED 170	2786-76-7	<= 0.05	No Data Available

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. If you are concerned, get medical advice.

**Skin Contact:**

Wash with soap and water. 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:**

No need for first aid is anticipated.

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

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

Not applicable.

**SECTION 5: Fire-fighting measures****5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

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

None inherent in this product.

**Hazardous Decomposition or By-Products**

**Substance**

Carbonyl Fluoride  
Carbon monoxide  
Carbon dioxide  
Hydrogen Fluoride  
Oxides of Nitrogen

**Condition**

During Combustion  
During Combustion  
During Combustion  
During Combustion  
During Combustion

**5.3. Special protective actions for fire-fighters****SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

For industrial or professional use only. Not for consumer sale or use. Avoid release to the environment. Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

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

Store away from acids. Store away from strong bases.

**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**

None required.

**Skin/hand protection**

No chemical protective gloves are required.

**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 particulates

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

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Specific Physical Form:</b>	Paste
<b>Colour</b>	Red
<b>Odour</b>	Odourless
<b>Odour threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point/Freezing point</b>	<i>Not Applicable</i>
<b>Boiling point</b>	270 °C [ <i>Details: MITS data (per supplier info)</i> ]
<b>Flash Point</b>	Flash point > 93 °C (200 °F)
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapour Pressure</b>	≤1.3 Pa
<b>Vapour Density and/or Relative Vapour Density</b>	<i>No Data Available</i>
<b>Density</b>	<i>No Data Available</i>
<b>Relative density</b>	Approximately 1.99 [ <i>Ref Std: WATER=1</i> ]
<b>Water solubility</b>	Nil
<b>Solubility- non-water</b>	<i>Not Applicable</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>Not Applicable</i>
<b>Viscosity/Kinematic Viscosity</b>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>Percent volatile</b>	0 %
<b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents</b>	<i>No Data Available</i>
<b>Average particle size</b>	<i>No Data Available</i>
<b>Bulk density</b>	<i>No Data Available</i>
<b>Molecular weight</b>	<i>No Data Available</i>
<b>Softening point</b>	<i>No Data Available</i>

**Nanoparticles**

This material contains nanoparticles.

## 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**

Not determined

**10.5. Incompatible materials**

Strong acids

Strong bases

Reactive metals

No Data Available

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

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

**SECTION 11: Toxicological information**

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

**11.1. Information on Toxicological effects****Signs and Symptoms of Exposure**

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

**Inhalation:**

No known health effects.

**Skin Contact:**

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

**Eye Contact:**

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

**Ingestion:**

No known health effects.

**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
Synthetic Amorphous Silica, Fumed, Crystalline Free	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Amorphous Silica, Fumed, Crystalline Free	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Rat	LD50 > 5,110 mg/kg

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

Name	Species	Value
Synthetic Amorphous Silica, Fumed, Crystalline Free	Rabbit	No significant irritation

### Serious Eye Damage/Irritation

Name	Species	Value
Synthetic Amorphous Silica, Fumed, Crystalline Free	Rabbit	No significant irritation

### Skin Sensitization

Name	Species	Value
Synthetic Amorphous Silica, Fumed, Crystalline Free	Human and animal	Not classified

### 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
Synthetic Amorphous Silica, Fumed, Crystalline Free	In Vitro	Not mutagenic

### Carcinogenicity

Name	Route	Species	Value
Synthetic Amorphous Silica, Fumed, Crystalline Free	Not Specified	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
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

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

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Synthetic Amorphous Silica, Fumed, Crystalline Free	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure

**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.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. 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. Combustion products will include HF. Facility must be capable of handling halogenated materials. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

**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**

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information. 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 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:** 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:** 0 **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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Conversion to GHS format SDS.

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