



## Safety Data Sheet

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<b>Document group:</b>	27-3026-5	<b>Version number:</b>	3.00
<b>Issue Date:</b>	13/02/2019	<b>Supersedes date:</b>	27/03/2013

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

### IDENTIFICATION:

#### 1.1. Product identifier

3M Scotchcast 1402FR A/B

#### Product Identification Numbers

KE-2351-1952-3 KE-2351-1953-1

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

##### Recommended use

Cable Resin, Casting Resin

#### 1.3. Supplier's details

**Address:** 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland  
**Telephone:** (09) 477 4040  
**E Mail:** innovation@nz.mmm.com  
**Website:** 3m.co.nz

#### 1.4. Emergency telephone number

24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the SDSs for components of this product are:**

27-1960-7, 27-1942-5

One or more components of this KIT is classified as a hazardous substance in accordance with the relevant criteria of the HSNO Act 1996, the Hazardous Substances (Classification) Notice 2017 and the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.

### TRANSPORT INFORMATION

The Dangerous Goods Classification for the complete Kit is provided below.

**UN No.:** UN3082

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIPHENYL TOLYL

PHOSPHATE, POLYMETHYLENE POLYPHENYLENE ISOCYANATE)

**Class/Division:** 9

**Packing Group:** III

**Marine Pollutant:** Not applicable.

**Hazchem Code:**-3Z

**Land Transport Rule: Dangerous Goods - Road/Rail Transport**

**Special Instructions:**Limited quantity may apply

**International Air Transport Association (IATA)- Air Transport**

**Special Instructions:**Not restricted, as per Special Provision A197, environmentally hazardous substance exception.

**International Maritime Dangerous Goods Code (IMDG) - Marine Transport**

**Special Instructions:**Not restricted, as per IMDG code 2.10.2.7, marine pollutant exception.

**Revision information:**

Complete document review.

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## Safety Data Sheet

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<b>Document group:</b>	27-1942-5	<b>Version number:</b>	2.00
<b>Issue Date:</b>	04/04/2018	<b>Supersedes date:</b>	27/05/2012

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances and New Organisms Act 1996 (HSNO Act) and Regulations, as amended.

### SECTION 1: Identification

#### 1.1. Product identifier

3M Scotchcast 1402FR Part A

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

##### Recommended use

Electrical, Cable resin for the splicing of energy cables

#### 1.3. Supplier's details

**Address:** 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland

**Telephone:** (09) 477 4040

**E Mail:** innovation@nz.mmm.com

**Website:** 3m.co.nz

#### 1.4. Emergency telephone number

24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

### SECTION 2: Hazard identification

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

Classified as hazardous according to the New Zealand, Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 as amended.

Classified as a Dangerous Good according to; New Zealand, Land Transport Rule: Dangerous Goods 2005 (Rule 45001/1) as amended, NZS 5433:2012 Transport of Dangerous Goods on Land, UN Model Regulations on the Transport of Dangerous Goods, International Maritime Dangerous Goods Code and IATA Dangerous Goods Regulations.

##### HSNO classification

6.4A Irritating to the eye

9.1D Aquatic toxicity

#### 2.2. Label elements

**SIGNAL WORD**

## 3M Scotchcast 1402FR Part A

WARNING!

### HAZARD STATEMENTS:

H320 Causes eye irritation.  
H401 Toxic to aquatic life.

### PRECAUTIONARY STATEMENTS

#### Disposal:

P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

## SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
Aluminium trihydroxide	21645-51-2	40 - 70
Polyester/Etherpolyole	Trade Secret	20 - 40
Castor oil	8001-79-4	1 - 10
Phosphoric acid, methylphenyl diphenyl ester	26444-49-5	1 - 10
Phosphoric acid, triethyl ester	78-40-0	1 - 10
Zeolites	1318-02-1	1 - 10
Polymeric Carbodiimide	None	<= 1
Distillates (petroleum), hydrotreated light	64742-47-8	< 0.2

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation

No need for first aid is anticipated.

#### 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.

A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

#### 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

<u>Substance</u>	<u>Condition</u>
Aldehydes.	During combustion.
Hydrocarbons.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.

## 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

5.4. Hazchem code: 3Z

## SECTION 6: Accidental release measures

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

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Observe precautions from other sections.

### 6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes 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 authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. 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

Refer to Section 15: HSNO Controls for more information.

### 7.1. Precautions for safe handling

Avoid eye contact. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

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

Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat.

### 7.3. Approved handler test certificate

Not required

## 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>CAS Nbr</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional comments</b>
Phosphoric acid, triethyl ester	78-40-0	AIHA	TWA:7.45 mg/m <sup>3</sup> (1 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists  
 AIHA : American Industrial Hygiene Association  
 CMRG : Chemical Manufacturer's Recommended Guidelines  
 New Zealand WES : New Zealand Workplace Exposure Standards.  
 TWA: Time-Weighted-Average  
 STEL: Short Term Exposure Limit  
 ppm: parts per million  
 mg/m<sup>3</sup>: milligrams per cubic metre  
 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. Curing enclosures must be exhausted to outdoors or to a suitable emission control device.

**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.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

**Skin/hand protection**

No chemical protective gloves are required.

**Respiratory protection**

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

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

Refer AS/NZS 1715 - Selection, use and maintenance of respiratory protective equipment and AS/NZS 1716 - Respiratory protective devices.

**SECTION 9: Physical and chemical properties**

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

<b>Physical state</b>	Liquid.
<b>Appearance/Odour</b>	Light beige; Odourless
<b>Odour threshold</b>	No data available.
<b>pH</b>	No data available.

Melting point/Freezing point	<i>Not applicable.</i>
Boiling point/Initial boiling point/Boiling range	$\geq 374$ °C
Flash point	190 °C [ <i>Test Method: Closed Cup</i> ]
Evaporation rate	<i>No data available.</i>
Flammability (solid, gas)	Not applicable.
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	<i>No data available.</i>
Density	1.58 - 1.62 g/ml
Relative density	1.58 - 1.62 [ <i>Ref Std: WATER=1</i> ]
Water solubility	<i>No data available.</i>
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
Viscosity	8 - 11 mPa-s
Volatile organic compounds (VOC)	<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 polymerisation will not occur.

### 10.4 Conditions to avoid

Heat.

Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.

### 10.5 Incompatible materials

Water

Accelerators

### 10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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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 labelling, 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

Vapours released during curing may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

#### Skin contact

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

#### 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 diarrhoea.

#### Toxicological Data

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

#### Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Aluminium trihydroxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium trihydroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Castor oil	Dermal		LD50 estimated to be > 5,000
Castor oil	Ingestion		LD50 estimated to be > 5,000
Zeolites	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zeolites	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 4.57 mg/l
Zeolites	Ingestion	Rat	LD50 > 5,000 mg/kg
Phosphoric acid, triethyl ester	Dermal	Guinea pig	LD50 > 21,400 mg/kg
Phosphoric acid, triethyl ester	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 8.8 mg/l
Phosphoric acid, triethyl ester	Ingestion	Rat	LD50 1,131 mg/kg
Distillates (petroleum), hydrotreated light	Dermal	Rabbit	LD50 > 3,160 mg/kg
Distillates (petroleum), hydrotreated light	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3 mg/l
Distillates (petroleum), hydrotreated light	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Aluminium trihydroxide	Rabbit	No significant irritation
Castor oil	Human	Minimal irritation
Zeolites	Rabbit	No significant irritation
Phosphoric acid, triethyl ester	Rabbit	No significant irritation
Distillates (petroleum), hydrotreated light	Rabbit	Mild irritant



**3M Scotchcast 1402FR Part A****Serious Eye Damage/Irritation**

Name	Species	Value
Aluminium trihydroxide	Rabbit	No significant irritation
Castor oil	Rabbit	Mild irritant
Zeolites	Rabbit	Mild irritant
Phosphoric acid, triethyl ester	Rabbit	Severe irritant
Distillates (petroleum), hydrotreated light	Rabbit	Mild irritant

**Skin Sensitisation**

Name	Species	Value
Aluminium trihydroxide	Guinea pig	Not classified
Castor oil	Human	Not classified
Phosphoric acid, triethyl ester	Mouse	Not classified
Distillates (petroleum), hydrotreated light	Guinea pig	Not classified

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

Name	Route	Value
Castor oil	In Vitro	Not mutagenic
Castor oil	In vivo	Not mutagenic
Distillates (petroleum), hydrotreated light	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Aluminium trihydroxide	Not specified.	Multiple animal species	Not carcinogenic
Distillates (petroleum), hydrotreated light	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
Aluminium trihydroxide	Ingestion	Not classified for development	Rat	NOAEL 768 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
Phosphoric acid, triethyl ester	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Distillates (petroleum), hydrotreated light	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Distillates (petroleum), hydrotreated light	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Distillates (petroleum), hydrotreated light	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional	NOAEL Not available	

**3M Scotchcast 1402FR Part A**

				judgement		
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**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Castor oil	Ingestion	heart   hematopoietic system   liver	Not classified	Rat	NOAEL 4,800 mg/kg/day	13 weeks
Castor oil	Ingestion	kidney and/or bladder	Not classified	Mouse	NOAEL 13,000 mg/kg/day	13 weeks

**Aspiration Hazard**

Name	Value
Distillates (petroleum), hydrotreated light	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**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

**12.1. Toxicity****Ecotoxic to the aquatic environment.**

## 9.1D Aquatic toxicity

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Aluminium trihydroxide	21645-51-2	Fish	Laboratory	96 hours	LC50	>100 mg/l
Aluminium trihydroxide	21645-51-2	Water flea	Laboratory	48 hours	EC50	>100 mg/l
Aluminium trihydroxide	21645-51-2	Green Algae	Laboratory	72 hours	EC50	>100 mg/l
Castor oil	8001-79-4	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Phosphoric acid, methylphenyl diphenyl ester	26444-49-5	Green algae	Experimental	72 hours	EC50	0.99 mg/l
Phosphoric acid, methylphenyl diphenyl ester	26444-49-5	Ricefish	Experimental	96 hours	LC50	1.3 mg/l
Phosphoric acid, methylphenyl diphenyl ester	26444-49-5	Water flea	Experimental	24 hours	EC50	3.7 mg/l
Phosphoric acid, methylphenyl diphenyl ester	26444-49-5	Water flea	Experimental	21 days	NOEC	0.12 mg/l

**3M Scotchcast 1402FR Part A**

diphenyl ester						
Phosphoric acid, methylphenyl diphenyl ester	26444-49-5	Green algae	Experimental	72 hours	NOEC	0.55 mg/l
Phosphoric acid, triethyl ester	78-40-0	Water flea	Experimental	48 hours	EC50	350 mg/l
Phosphoric acid, triethyl ester	78-40-0	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Phosphoric acid, triethyl ester	78-40-0	Green algae	Experimental	72 hours	EC50	900 mg/l
Phosphoric acid, triethyl ester	78-40-0	Water flea	Experimental	21 days	NOEC	31.6 mg/l
Zeolites	1318-02-1	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Zeolites	1318-02-1	Green algae	Experimental	96 hours	EC50	>100 mg/l
Zeolites	1318-02-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Zeolites	1318-02-1	Water flea	Experimental	21 days	NOEC	>100 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Rainbow trout	Estimated	96 hours	Lethal Level 50%	2 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Estimated	72 hours	EC50	1 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Water flea	Estimated	48 hours	Effect Level 50%	1.4 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Water flea	Estimated	21 days	No obs Effect Level	0.48 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Green Algae	Estimated	72 hours	No obs Effect Level	1 mg/l

**12.2. Persistence and degradability**

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Aluminium trihydroxide	21645-51-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Castor oil	8001-79-4	Estimated Biodegradation	28 days	BOD	64 % weight	OECD 301D - Closed bottle test
Phosphoric acid, methylphenyl	26444-49-5	Experimental Biodegradation	28 days	CO2 evolution	84 % weight	OECD 301B - Modified sturm or CO2

**3M Scotchcast 1402FR Part A**

diphenyl ester						
Phosphoric acid, triethyl ester	78-40-0	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Zeolites	1318-02-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

**12.3 : Bioaccumulative potential**

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Aluminium trihydroxide	21645-51-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Castor oil	8001-79-4	Estimated Bioconcentration		Bioaccumulation factor	7.4	Estimated: Bioconcentration factor
Phosphoric acid, methylphenyl diphenyl ester	26444-49-5	Experimental BCF-Carp	56 days	Bioaccumulation factor	471	Other methods
Phosphoric acid, triethyl ester	78-40-0	Experimental BCF-Carp	42 days	Bioaccumulation factor	<1.3	OECD 305E - Bioaccumulation flow-through fish test
Zeolites	1318-02-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

**12.4. Mobility in soil**

Please contact manufacturer for more details

**12.5 Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1. Disposal methods**

See Section 11.1 Information on toxicological effects

Dispose of completely cured (or polymerized) material 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.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

## SECTION 14: Transport Information

### New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport

UN No.: UN3082

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , ( Diphenyl Toly Phosphate )

**Class/Division:** 9

**Sub Risk:** Not applicable.

**Packing Group:** III

**Special Instructions:**Limited quantity may apply

**Hazchem Code:** 3Z

**IERG:** 47

### International Air Transport Association (IATA) - Air Transport

UN No.: UN3082

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , ( Diphenyl Toly Phosphate )

**Class/Division:** 9

**Sub Risk:** Not applicable.

**Packing Group:** III

**Special Instructions:**Forbidden packaging does not meet requirements for this mode of transport

### International Maritime Dangerous Goods Code (IMDG) - Marine Transport

UN No.: UN3082

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , ( Diphenyl Toly Phosphate )

**Class/Division:** 9

**Sub Risk:** Not applicable.

**Packing Group:** III

**Marine Pollutant:** Diphenyl Toly Phosphate

**Special Instructions:**Limited quantity may apply

## SECTION 15: Regulatory information

HSNO Approval number	HSR002670
Group standard name	Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2006
HSNO Hazard classification	Refer to Section 2: Hazard identification

### NZ Inventory of Chemicals (NZIoC) Status

All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements.

### HSNO Controls

Approved handler test certificate	Not required
Location and transit Depot certification test	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.6A, 6.8A, 6.9A, 8.3A, 9.1D substance)

Secondary containment	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.6A, 6.8A, 6.9A, 8.3A, 9.1D substance)
Tracking	Not required
Warning signage	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 8.3A, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.1D or 9.1D substance)

## **SECTION 16: Other information**

### **Revision information:**

No revision information is available.

Section 1: Product use information information was deleted.

US Section 01 Product Use - Recommended Use information was added.

Section 2: Classification statements information was modified.

Section 2: NZ Classification statements (Transportation) information was modified.

HSNO Classification. information was added.

HSNO Classification. information was modified.

Environmental Hazard Statements information was modified.

Section 2: NZ Health Hazard Statements information was added.

Section 2: NZ Precautionary Statements - Prevention information was deleted.

Section 2: NZ Signal Word information was added.

Section 2: Ingredient table information was modified.

Section 4: First Aid for Eyes information was added.

Section 5: 5.3. Advice for fire-fighters information was deleted.

Section 5: Fire - Advice for fire fighters information information was modified.

Section 5: Fire - Extinguishing media information information was modified.

Section 5: Hazchem code information was deleted.

Section 6: Accidental release clean-up information information was modified.

Section 6: Accidental release personal information information was modified.

Section 7: Precautions safe handling information information was modified.

Section 7: Refer to Section 15 - HSNO control statement information was modified.

Section 8: Eye/face protection information information was modified.

Section 8: Eye/face protection text information was deleted.

Section 8: Occupational exposure limit table information was added.

Section 8: Occupational exposure limit table information was modified.

OEL Reg Agency Desc information was modified.

Section 8: Personal Protection - Eye information information was added.

Section 8: Personal Protection - Respiratory Information information was modified.

Section 8: Personal Protection - Skin/hand information information was modified.

Section 8: Respiratory protection - recommended respirators guide information was added.

Section 8: Respiratory protection - recommended respirators information was deleted.

Section 09: Boiling point/Initial boiling point/Boiling range information was added.

Section 09: Decomposition Temperature information was added.

Section 09: Melting point/Freezing point information was added.

Section 9: Boiling point information information was deleted.

Section 9: Explosive properties information information was deleted.

Section 9: Flammability (solid, gas) information information was added.

Section 9: Flammability (solid, gas) information information was deleted.

Section 9: Flash point information information was modified.

Section 9: Melting point information information was deleted.

Section 9: Odour Threshold information was added.

Section 9: Oxidising properties information information was deleted.

Section 9: Property description for optional properties information was added.

Section 9: Solubility (non-water) information was added.

Section 9: Viscosity information information was modified.  
Section 10: Hazardous decomposition products during combustion text information was added.  
Section 11: Acute Toxicity table information was modified.  
Section 11: Aspiration Hazard Table information was modified.  
Section 11: Carcinogenicity Table information was modified.  
Section 11: Disclosed components not in tables text information was added.  
Section 11: Germ Cell Mutagenicity Table information was modified.  
Section 11: Health Effects - Eye information information was modified.  
Section 11: Health Effects - Skin information information was modified.  
Section 11: Reproductive and/or Developmental Effects text information was added.  
Section 11: Reproductive Toxicity Table information was modified.  
Section 11: Respiratory Sensitization Table information was deleted.  
Section 11: Respiratory Sensitization text information was added.  
Section 11: Serious Eye Damage/Irritation Table information was modified.  
Section 11: Skin Corrosion/Irritation Table information was modified.  
Section 11: Skin Sensitization Table information was modified.  
Section 11: Target Organs - Repeated Table information was modified.  
Section 11: Target Organs - Single Table information was modified.  
Section 12: Component ecotoxicity information information was added.  
Prints No Data if Bioaccumulative potential information is not present information was deleted.  
Prints No Data if Component ecotoxicity information is not present information was deleted.  
Prints No Data if Persistence and Degradability information is not present information was deleted.  
Section 12: NZ Environmental aquatic information information was modified.  
Section 12: Persistence and Degradability information information was added.  
Section 12: Bioaccumulative potential information information was added.  
Section 13: 13.1. Waste disposal note information was modified.  
Section 13: Standard Phrase Category Waste GHS information was modified.  
Section 14: Class/Div Group 2 information was added.  
Section 14: IERG Group 1 information was added.  
Section 14: IERG Group 2 information was added.  
Section 14: Marine Pollutant Technical Name information was added.  
Section 14: Packing Group Group 1 information was added.  
Section 14: Packing Group Group 2 information was added.  
Section 14: Proper Shipping Name Technical Name Group 1 information was added.  
Section 14: Special Instructions ADG Group 1 information was added.  
Section 14: Special Instructions Group 2 information was added.  
Section 14: Special Instructions IATA Group 1 information was added.  
Section 14: Special Instructions IATA Group 2 information was added.  
Section 14: Special Instructions IMDG Group 1 information was added.  
Section 14: Special Instructions IMDG Group 2 information was added.  
Section 14: Transport Class/Div Group 1 information was added.  
Section 14: Transport Information information was added.  
Section 14: Transportation information information was deleted.  
Section 14: Transportation Sub Risk Group 1 information was added.  
Section 14: Transportation Sub Risk Group 2 information was added.  
Section 14: UN Number IATA Group 1 information was added.  
Section 14: UN Number IATA Group 2 information was added.  
Section 14: UN Number information was added.  
Section 14: UN Proper Shipping Name Group 1 information was added.  
Section 14: UN Proper Shipping Name Group 2 information was added.  
Section 14: UN Proper Shipping Name IATA Group 1 information was added.  
Section 14: UN Proper Shipping Name IATA Group 2 information was added.  
Section 15: NZ Inventories information information was added.  
Section 16: NZ reason for reissue information was added.

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date of issue. TO THE EXTENT

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## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances and New Organisms Act 1996 (HSNO Act) and Regulations, as amended.

### SECTION 1: Identification

#### 1.1. Product identifier

3M Scotchcast 1402FR Part B

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

##### Recommended use

Electrical, Casting resin

#### 1.3. Supplier's details

**Address:** 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland

**Telephone:** (09) 477 4040

**E Mail:** innovation@nz.mmm.com

**Website:** 3m.co.nz

#### 1.4. Emergency telephone number

24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

### SECTION 2: Hazard identification

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

Classified as hazardous according to the New Zealand, Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 as amended.

Classified as a Dangerous Good according to; New Zealand, Land Transport Rule: Dangerous Goods 2005 (Rule 45001/1) as amended, NZS 5433:2012 Transport of Dangerous Goods on Land, UN Model Regulations on the Transport of Dangerous Goods, International Maritime Dangerous Goods Code and IATA Dangerous Goods Regulations.

##### HSNO classification

6.1D Acute toxicity

6.3A Irritating to the skin

6.4A Irritating to the eye

6.5A Respiratory sensitiser

6.5B Skin sensitiser

- 6.9A Toxic to human target organs/systems
- 9.1A Aquatic toxicity
- 9.3A Terrestrial vertebrate toxicity

## 2.2. Label elements

### SIGNAL WORD

DANGER! WARNING!

### Symbols:

Health Hazard | Exclamation mark | Environment |

### Pictograms



### HAZARD STATEMENTS:

H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H372	Causes damage to organs through prolonged or repeated exposure: respiratory system
H401	Toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H431	Very toxic to terrestrial vertebrates.

### PRECAUTIONARY STATEMENTS

#### General:

P102 Keep out of reach of children.

#### Prevention:

P104 Read Safety Data Sheet before use.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P285 In case of inadequate ventilation wear respiratory protection.  
P280E Wear protective gloves.  
P273 Avoid release to the environment.

#### Response:

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
P331 Do NOT induce vomiting.  
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.

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P391 Collect spillage.

### Storage:

P405 Store locked up.

### Disposal:

P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

### 2.3. Other hazards

Persons previously sensitised to isocyanates may develop a cross-sensitisation reaction to other isocyanates.

## SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
Polymethylene polyphenylene isocyanate	9016-87-9	100

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

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

#### Eye contact

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

A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

#### 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.

#### Condition

During combustion.

## 3M Scotchcast 1402FR Part B

Carbon dioxide.  
Hydrogen cyanide.  
Oxides of nitrogen.

During combustion.  
During combustion.  
During combustion.

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

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

5.4. Hazchem code: 3Z

## SECTION 6: Accidental release measures

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

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

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

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

Contain spill. 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. 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 container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. 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 Safety Data Sheet. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

Refer to Section 15: HSNO Controls for more information.

### 7.1. Precautions for safe handling

For industrial or professional use only. Do not use in a confined area with minimal air exchange. 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.

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

Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Protect from sunlight. Store away from acids. Store away from strong bases. Store away from amines.

### 7.3. Approved handler test certificate

Not required

## 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 Safety Data Sheet.

## 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.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

#### 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

Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

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

Refer AS/NZS 1715 - Selection, use and maintenance of respiratory protective equipment and AS/NZS 1716 - Respiratory protective devices.

## SECTION 9: Physical and chemical properties

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

**Physical state**

Liquid.

**Appearance/Odour**

Earthy Musty odour; Brown colour

**Odour threshold**

*No data available.*

**pH**

*No data available.*

<b>Melting point/Freezing point</b>	<i>Not applicable.</i>
<b>Boiling point/Initial boiling point/Boiling range</b>	$\geq 150$ °C
<b>Flash point</b>	150 °C [ <i>Test Method: Closed Cup</i> ]
<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>	<i>No data available.</i>
<b>Vapour density</b>	<i>No data available.</i>
<b>Density</b>	1.2 - 1.24 g/ml
<b>Relative density</b>	1.2 - 1.24 [ <i>Ref Std: WATER=1</i> ]
<b>Water solubility</b>	Nil
<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</b>	120 - 150 mPa-s
<b>Volatile organic compounds (VOC)</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 polymerisation will not occur.

### **10.4 Conditions to avoid**

Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.

Heat.

### **10.5 Incompatible materials**

Accelerators

Water

Strong bases.

Strong acids.

Reactions with metals in powder form occur from 370 °C onwards.

Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Amines.

Alcohols.

### **10.6 Hazardous decomposition products**

<u>Substance</u>	<u>Condition</u>
------------------	------------------

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 labelling, 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

Harmful if inhaled. 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

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

#### Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

#### Ingestion

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

#### 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 respiratory failure.

#### Additional information:

Persons previously sensitised to isocyanates may develop a cross-sensitisation 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

Name	Route	Species	Value
Polymethylene polyphenylene isocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Polymethylene polyphenylene isocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
Polymethylene polyphenylene isocyanate	Ingestion	Rat	LD50 31,600 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Polymethylene polyphenylene isocyanate	official classification	Irritant

**3M Scotchcast 1402FR Part B****Serious Eye Damage/Irritation**

Name	Species	Value
Polymethylene polyphenylene isocyanate	official classification	Severe irritant

**Skin Sensitisation**

Name	Species	Value
Polymethylene polyphenylene isocyanate	official classification	Sensitising

**Respiratory Sensitisation**

Name	Species	Value
Polymethylene polyphenylene isocyanate	Human	Sensitising

**Germ Cell Mutagenicity**

Name	Route	Value
Polymethylene polyphenylene isocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Polymethylene polyphenylene isocyanate	Inhalation	Rat	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
Polymethylene polyphenylene isocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polymethylene polyphenylene isocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polymethylene polyphenylene isocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	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

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

### 12.1. Toxicity

#### Ecotoxic to the aquatic environment.

##### 9.1A Aquatic toxicity

#### Ecotoxic to terrestrial vertebrates

##### 9.3A Terrestrial vertebrate toxicity

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Polymethylene polyphenylene isocyanate	9016-87-9	Water flea	Estimated	24 hours	EC50	>100 mg/l

### 12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Polymethylene polyphenylene isocyanate	9016-87-9	Estimated Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Polymethylene polyphenylene isocyanate	9016-87-9	Experimental Hydrolysis		Hydrolytic half-life	<2 hours (t 1/2)	Other methods

### 12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Polymethylene polyphenylene isocyanate	9016-87-9	Estimated BCF-Carp	28 days	Bioaccumulation factor	200	Other methods

### 12.4. Mobility in soil

Please contact manufacturer for more details

### 12.5 Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

See Section 11.1 Information on toxicological effects

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.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

## SECTION 14: Transport Information

### New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport

UN No.: UN3082

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , ( Polymethylene Polyphenylene Isocyanate )

**Class/Division:** 9

**Sub Risk:** Not applicable.

**Packing Group:** III

**Special Instructions:**Limited quantity may apply

**Hazchem Code:** 3Z

**IERG:** 47

### International Air Transport Association (IATA) - Air Transport

UN No.: UN3082

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , ( Polymethylene Polyphenylene Isocyanate )

**Class/Division:** 9

**Sub Risk:** Not applicable.

**Packing Group:** III

**Special Instructions:**Forbidden packaging does not meet requirements for this mode of transport

### International Maritime Dangerous Goods Code (IMDG) - Marine Transport

UN No.: UN3082

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , ( Polymethylene Polyphenylene Isocyanate )

**Class/Division:** 9

**Sub Risk:** Not applicable.

**Packing Group:** III

**Marine Pollutant:** Polymethylene Polyphenylene Isocyanate

**Special Instructions:**Limited quantity may apply

## SECTION 15: Regulatory information

HSNO Approval number	HSR002670
Group standard name	Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2006
HSNO Hazard classification	Refer to Section 2: Hazard identification

### NZ Inventory of Chemicals (NZIoC) Status

All ingredients are listed on the New Zealand Inventory of Chemicals.

### HSNO Controls

Approved handler test certificate	Not required
Location and transit Depot certification test	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.6A, 6.8A, 6.9A, 8.3A, 9.1D substance)

### 3M Scotchcast 1402FR Part B

Secondary containment	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.6A, 6.8A, 6.9A, 8.3A, 9.1D substance)
Tracking	Not required
Warning signage	100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a HSNO 8.3A, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.1D or 9.1D substance)

## SECTION 16: Other information

### Revision information:

No revision information is available.

Section 1: Product use information information was deleted.

US Section 01 Product Use - Recommended Use information was added.

Section 2: Classification statements information was modified.

Label: GHS Supplemental Information information was added.

Section 2: NZ Classification statements (Transportation) information was modified.

HSNO Classification. information was modified.

Environmental Hazard Statements information was modified.

Section 2: NZ Health Hazard Statements information was modified.

Section 2: NZ Other hazards information was deleted.

Section 2: NZ Pictograms information was modified.

Section 2: NZ Precautionary Statements - Prevention information was modified.

Section 2: NZ Precautionary Statements - Response information was modified.

Section 2: NZ Precautionary Statements - Storage information was modified.

Section 2: NZ Signal Word information was modified.

Section 2: NZ Symbols information was modified.

Section 4: First aid for inhalation information information was modified.

Section 5: 5.3. Advice for fire-fighters information was deleted.

Section 5: Fire - Advice for fire fighters information information was modified.

Section 5: Fire - Extinguishing media information information was modified.

Section 6: Accidental release clean-up information information was modified.

Section 6: Accidental release personal information information was modified.

Section 7: Conditions safe storage information was modified.

Section 7: Precautions safe handling information information was modified.

Section 7: Refer to Section 15 - HSNO control statement information was modified.

Section 8: Appropriate Engineering controls information information was added.

Section 8: Eye/face protection text information was deleted.

Section 8: mg/m<sup>3</sup> key information was deleted.

Section 8: Occupational exposure limit table information was added.

Section 8: Occupational exposure limit table information was deleted.

OEL Reg Agency Desc information was deleted.

Section 8: Personal Protection - Eye information information was modified.

Section 8: Personal Protection - Respiratory Information information was modified.

Section 8: Personal Protection - Skin/body information information was modified.

Section 8: Personal Protection - Skin/hand information information was modified.

Section 8: ppm key information was deleted.

Section 8: Respiratory protection - recommended respirators guide information was added.

Section 8: Respiratory protection - recommended respirators information information was modified.

Section 8: Respiratory protection - recommended respirators information was deleted.

Section 8: Skin protection - protective clothing information information was modified.

Section 8: Skin protection - recommended gloves information information was modified.

Section 8: STEL key information was deleted.

Section 8: TWA key information was deleted.

Section 09: Boiling point/Initial boiling point/Boiling range information was added.

Section 09: Decomposition Temperature information was added.  
Section 09: Melting point/Freezing point information was added.  
Section 9: Boiling point information information was deleted.  
Section 9: Explosive properties information information was deleted.  
Section 9: Flammability (solid, gas) information information was added.  
Section 9: Flammability (solid, gas) information information was deleted.  
Section 9: Flash point information information was modified.  
Section 9: Melting point information information was deleted.  
Section 9: Odour Threshold information was added.  
Section 9: Oxidising properties information information was deleted.  
Section 9: Property description for optional properties information was added.  
Section 9: Relative density information information was modified.  
Section 9: Solubility (non-water) information was added.  
Section 9: Viscosity information information was modified.  
Section 10: Hazardous decomposition products during combustion text information was added.  
Section 11: Acute Toxicity table information was modified.  
Section 11: Aspiration Hazard Table information was deleted.  
Section 11: Aspiration Hazard text information was added.  
Section 11: Carcinogenicity Table information was modified.  
Section 11: Disclosed components not in tables text information was added.  
Section 11: Germ Cell Mutagenicity Table information was modified.  
Section 11: Health Effects - Inhalation information information was modified.  
Section 11: Health Effects - Other information information was deleted.  
Section 11: Health Effects - Skin information information was modified.  
Section 11: Prolonged or repeated exposure may cause standard phrases information was added.  
Section 11: Reproductive and/or Developmental Effects text information was added.  
Section 11: Reproductive Toxicity Table information was modified.  
Section 11: Respiratory Sensitization Table information was modified.  
Section 11: Serious Eye Damage/Irritation Table information was modified.  
Section 11: Skin Corrosion/Irritation Table information was modified.  
Section 11: Skin Sensitization Table information was modified.  
Section 11: Target Organs - Repeated Table information was modified.  
Section 11: Target Organs - Single Table information was modified.  
Section 12: Component ecotoxicity information information was added.  
Section 12: Ecotoxic to terrestrial vertebrates information was added.  
Prints No Data if Bioaccumulative potential information is not present information was deleted.  
Prints No Data if Component ecotoxicity information is not present information was deleted.  
Prints No Data if Persistence and Degradability information is not present information was deleted.  
Section 12: NZ Environmental terrestrial vertebrate information was added.  
Section 12: Persistence and Degradability information information was added.  
Section 12: Bioaccumulative potential information information was added.  
Section 13: 13.1. Waste disposal note information was modified.  
Section 13: Standard Phrase Category Waste GHS information was modified.  
Section 14: Class/Div Group 2 information was added.  
Section 14: IERG Group 1 information was added.  
Section 14: IERG Group 2 information was added.  
Section 14: Marine Pollutant Technical Name information was added.  
Section 14: Packing Group Group 1 information was added.  
Section 14: Packing Group Group 2 information was added.  
Section 14: Proper Shipping Name Technical Name Group 1 information was added.  
Section 14: Special Instructions ADG Group 1 information was added.  
Section 14: Special Instructions Group 2 information was added.  
Section 14: Special Instructions IATA Group 1 information was added.  
Section 14: Special Instructions IATA Group 2 information was added.  
Section 14: Special Instructions IMDG Group 1 information was added.  
Section 14: Special Instructions IMDG Group 2 information was added.

Section 14: Transport Class/Div Group 1 information was added.  
Section 14: Transport Information information was added.  
Section 14: Transportation information information was deleted.  
Section 14: Transportation Sub Risk Group 1 information was added.  
Section 14: Transportation Sub Risk Group 2 information was added.  
Section 14: UN Number IATA Group 1 information was added.  
Section 14: UN Number IATA Group 2 information was added.  
Section 14: UN Number information was added.  
Section 14: UN Proper Shipping Name Group 1 information was added.  
Section 14: UN Proper Shipping Name Group 2 information was added.  
Section 14: UN Proper Shipping Name IATA Group 1 information was added.  
Section 14: UN Proper Shipping Name IATA Group 2 information was added.  
Section 15: Approved Handler Test Certificate. information was modified.  
Section 15: Emergency Response Plan. information was modified.  
Section 15: Hazardous Atmosphere Zone. information was modified.  
Section 15: HSNO approval number. information was modified.  
Section 15: NZ Inventories information information was added.  
Section 15: Secondary Containment. information was modified.  
Section 15: Tracking. information was modified.  
Section 15: Warning Signage. information was modified.  
Section 16: NZ reason for reissue information was added.

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