Safety Data Sheet

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Issue Date:	26/03/2013	**Supersedes date:**	Initial issue.

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

IDENTIFICATION:

1.1. Product identifier
3M™ Bondo Dynatron Putty-Cote 592, 593

Product identification numbers
70-0080-0354-6 70-0080-0355-3

1.2. Recommended use and restrictions on use
Automotive.

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:

24-2371-3, 26-9510-4

TRANSPORT INFORMATION

70-0080-0354-6, 70-0080-0355-3

NEW ZEALAND LAND TRANSPORT:
UN3269, POLYESTER RESIN KIT, 3, III, LIMITED QUANTITY.

IATA:
FORBIDDEN PACKAGE SIZE EXCEEDS IATA QUANTITY LIMITATIONS.

IMO:
UN3269, POLYESTER RESIN KIT, 3, III, LIMITED QUANTITY, MARINE POLLUTANT, (Benzoyl peroxide and

Benzoic acid, C9-11 branched alkyl esters).

Revision information:
No revision information is available.

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Document group:	24-2371-3	**Version number:**	1.00
Issue Date:	26/03/2013	**Supersedes date:**	Initial issue.

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

SECTION 1: Identification

1.1. Product identifier
3M™ DYNATRON® PUTTY-COTE 592, 592T, 593

1.2. Recommended use and restrictions on use

Recommended use
Automotive.

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.
Classified as a Dangerous Good according to; NZS 5433:2012 Transport of Dangerous Goods on Land, UN, IMDG and IATA.

HSNO classification
3.1C Flammable liquid
6.1D Acute toxicity
6.3B Irritating to the skin
6.4A Irritating to the eye
6.7A Known/presumed human carcinogen
6.9A Toxic to human target organs/systems
9.1C Aquatic toxicity
9.3C Terrestrial vertebrate toxicity

2.2. Label elements

SIGNAL WORD
DANGER!

Symbols:
Flame |Health Hazard | Exclamation mark |

Pictograms

HAZARD STATEMENTS:

H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H303	May be harmful if swallowed.
H320	Causes eye irritation.
H316	Causes mild skin irritation.
H350	May cause cancer.
H370	Causes damage to organs: liver | sensory organs |
H372	Causes damage to organs through prolonged or repeated exposure: respiratory system |
H412	Harmful to aquatic life with long lasting effects.
H433	Harmful to terrestrial vertebrates.

PRECAUTIONARY STATEMENTS

General:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.

Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240	Ground/bond container and receiving equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P233	Keep container tightly closed.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P281	Use personal protective equipment as required.
P270	Do not eat, drink or smoke when using this product.
P264	Wash thoroughly after handling.
P273	Avoid release to the environment.

Response:

P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable

	for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P370 + P378G	In case of fire: Use a fire fighting agent suitable for flammable liquids and solids such as dry chemical or carbon dioxide.

Storage:

P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

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
Proprietary polyester resin	Trade Secret	15 - 40
Defoamer	Trade Secret	10 - 30
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-	25322-69-4	10 - 30
Styrene	100-42-5	10 - 30
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	5 - 10
Limestone	1317-65-3	3 - 7
Titanium dioxide	13463-67-7	1 - 5
Talc	14807-96-6	1 - 5
Quaternary ammonium compounds	68911-87-5	1 - 5
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)	26123-45-5	1 - 5
Quartz	14808-60-7	< 0.5

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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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 flammable liquids and solids

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

5.4. Hazchem code: 3YE

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. 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. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. 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 toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal 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.

SECTION 7: Handling and storage

Refer to Section 15 - HSNO controls for more information

7.1. Precautions for safe handling
Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Use explosion-proof electrical/ventilating/lighting/equipment. 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. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves,

respirators…) as required. Vapours may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed to prevent loss of stabilizing materials. Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidising agents. Store away from areas where product may come into contact with food or pharmaceuticals. Store in a dry place.

7.3. Approved handler test certificate
Class 6, required when present in quantities greater than 10 L (HSNO 6.7A substance).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Styrene	100-42-5	New Zealand WES	TWA(8 hours): 213 mg/m3 (50 ppm), STEL(15 minutes): 426 mg/m3 (100 ppm).	Skin Notation
Titanium dioxide	13463-67-7	New Zealand WES	TWA(8 hours):10 mg/m3	
Talc	14807-96-6	New Zealand WES	TWA(as respirable dust)(8 hours):2 mg/m3	
Quartz	14808-60-7	New Zealand WES	TWA(as respirable dust)(8 hours): 0.2 mg/m3	Class-subclass 6.7, carc HCA

New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m^3: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use explosion-proof ventilation equipment. Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining. 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

Wear eye/face protection.
The following eye protection(s) are recommended: Safety glasses with side shields.
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

Wear protective gloves.
Gloves made from the following material(s) are recommended: Nitrile rubber.
Polyvinyl alcohol (PVA).

Polymer laminate

Respiratory protection

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

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

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.
Specific Physical Form:	Paste
Appearance/Odour	Solvent odour White Paste.
Odour threshold	*No data available.*
pH	*No data available.*
Melting point/Freezing point	*No data available.*
Boiling point/Initial boiling point/Boiling range	145 ºC
Flash point	32.2 ºC [*Test Method:*Closed Cup]
Flash point	32 ºC [*Test Method:*Setaflash]
Evaporation rate	*No data available.*
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour density	3.6 [*Ref Std:*AIR=1]
Density	2.75 g/ml
Relative density	2.75 [*Ref Std:*WATER=1]
Water solubility	*No data available.*
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Viscosity	352 - 476 Pa-s
Hazardous air pollutants	14.83 % weight [*Test Method:*Calculated]
Volatile organic compounds (VOC)	24.2 % weight [*Test Method:*calculated per CARB title 2]
Volatile organic compounds (VOC)	361 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Percent volatile	13.2 % weight
Percent volatile	
VOC less H2O & exempt solvents	362 g/l [*Test Method:*calculated SCAQMD rule 443.1]

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. Stable under normal conditions. May become unstable at elevated temperatures and/or pressure.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.
Sparks and/or flames.

10.5 Incompatible materials
Strong oxidising agents.
Strong acids.
Alkali and alkaline earth metals.
Strong oxidising agents.
Strong bases.

10.6 Hazardous decomposition products

Substance	Condition
Hydrocarbons.	Not specified.
Carbon monoxide.	Not specified.
Carbon dioxide.	Not specified.

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. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain. May cause target organ effects after inhalation.

Skin contact
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye contact
Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Dust created by cutting, grinding, sanding, or machining may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion
May be harmful if swallowed.
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.
May cause target organ effects after ingestion.

Target Organ Effects:

Single exposure may cause:
Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Liver effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Prolonged or repeated exposure may cause:
Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests. Ocular effects: Signs/symptoms may include blurred or significantly impaired vision.
Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Liver effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Toxicological Data

Acute Toxicity

Name	Route	Species	Value
Overall product	Inhalation-Vapor(4 hr)		Data not available or insufficient for classification; calculated ATE18.6 mg/l
Overall product	Ingestion		Data not available or insufficient for classification; calculated ATE2,640.4 mg/kg
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-	Dermal	Rabbit	LD50 > 10,000 mg/kg
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-	Ingestion	Rat	LD50 1,000 mg/kg
Styrene	Inhalation-Vapor (4 hours)	Rat	LC50 8.3 mg/l
Styrene	Ingestion	Rat	LD50 5,000 mg/kg
2,4,7,9-tetramethyldec-5-yne-4,7-diol			Data not available or insufficient for classification
Limestone	Dermal		LD50 estimated to be > 5,000 mg/kg
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.8 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Talc	Ingestion		LD50 Not available
Quaternary ammonium compounds	Inhalation-Dust/Mist (4 hours)	Not available	LC50 > 5 mg/l
Quaternary ammonium compounds	Ingestion	Rat	LD50 > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-		Data not available or insufficient for classification

Styrene		Mild irritant
2,4,7,9-tetramethyldec-5-yne-4,7-diol		Data not available or insufficient for classification
Limestone		Data not available or insufficient for classification
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)		Data not available or insufficient for classification
Titanium dioxide		No significant irritation
Talc	Rabbit	No significant irritation
Quaternary ammonium compounds		Data not available or insufficient for classification
Quartz		No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-		Data not available or insufficient for classification
Styrene		Moderate irritant
2,4,7,9-tetramethyldec-5-yne-4,7-diol		Data not available or insufficient for classification
Limestone		Data not available or insufficient for classification
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)		Data not available or insufficient for classification
Titanium dioxide		Mild irritant
Talc	Rabbit	No significant irritation
Quaternary ammonium compounds		Data not available or insufficient for classification
Quartz		Data not available or insufficient for classification

Skin Sensitisation

Name	Species	Value
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-		Data not available or insufficient for classification
Styrene		Not sensitizing
2,4,7,9-tetramethyldec-5-yne-4,7-diol		Data not available or insufficient for classification
Limestone		Data not available or insufficient for classification
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)		Data not available or insufficient for classification
Titanium dioxide		Not sensitizing
Talc		Data not available or insufficient for classification
Quaternary ammonium compounds		Data not available or insufficient for classification
Quartz		Data not available or insufficient for classification

Respiratory Sensitisation

Name	Species	Value
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-		Data not available or insufficient for classification
Styrene		Data not available or insufficient for classification
2,4,7,9-tetramethyldec-5-yne-4,7-diol		Data not available or insufficient for classification
Limestone		Data not available or insufficient for classification

1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)		Data not available or insufficient for classification
Titanium dioxide		Data not available or insufficient for classification
Talc	Human	Not sensitizing
Quaternary ammonium compounds		Data not available or insufficient for classification
Quartz		Data not available or insufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-		Data not available or insufficient for classification
Styrene	In Vitro	Some positive data exist, but the data are not sufficient for classification
Styrene	Ingestion	Some positive data exist, but the data are not sufficient for classification
Styrene	Inhalation	Some positive data exist, but the data are not sufficient for classification
2,4,7,9-tetramethyldec-5-yne-4,7-diol		Data not available or insufficient for classification
Limestone		Data not available or insufficient for classification
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)		Data not available or insufficient for classification
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	Ingestion	Not mutagenic
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Quaternary ammonium compounds		Data not available or insufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-			Data not available or insufficient for classification
Styrene	Ingestion		Carcinogenic.
Styrene	Inhalation		Carcinogenic.
2,4,7,9-tetramethyldec-5-yne-4,7-diol			Data not available or insufficient for classification
Limestone			Data not available or insufficient for classification
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)			Data not available or insufficient for classification
Titanium dioxide	Ingestion		Not carcinogenic
Titanium dioxide	Inhalation		Some positive data exist, but the data are not sufficient for classification
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Quaternary ammonium compounds			Data not available or insufficient for classification
Quartz	Inhalation		Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-		Data not available or insufficient for classification			
Styrene	Ingestion	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		LOEL 200 mg/kg/day	
Styrene	Inhalation	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		NOEL N/A	
2,4,7,9-tetramethyldec-5-yne-4,7-diol		Data not available or insufficient for classification			
Limestone	Ingestion	Not toxic to reproduction and/or development		NOAEL N/A	
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)		Data not available or insufficient for classification			
Titanium dioxide		Data not available or insufficient for classification			
Talc	Ingestion	Not toxic to development	Rat	NOAEL 1,600 mg/kg	during organogenesis
Quaternary ammonium compounds		Data not available or insufficient for classification			
Quartz		Data not available or insufficient for classification			

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-			Data not available or insufficient for classification			
Styrene	Inhalation	auditory system	Causes damage to organs		LOAEL 4.3 mg/l	
Styrene	Inhalation	liver	Causes damage to organs		LOAEL 2.1 mg/l	
Styrene	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Styrene	Inhalation	respiratory irritation	Some positive data exist, but the data are not		Irritation Positive	

			sufficient for classification			
Styrene	Inhalation	endocrine system	All data are negative		NOAEL N/A	
Styrene	Inhalation	kidney and/or bladder	All data are negative		NOAEL 2.1 mg/l	
2,4,7,9-tetramethyldec-5-yne-4,7-diol			Data not available or insufficient for classification			
Limestone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Limestone	Inhalation	respiratory system	All data are negative		NOAEL 0.0812 mg/l	
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)			Data not available or insufficient for classification			
Titanium dioxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Talc	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Quaternary ammonium compounds			Data not available or insufficient for classification			
Quartz	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-			Data not available or insufficient for classification			
Styrene	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure		NOAEL N/A	
Styrene	Inhalation	nervous system	May cause damage to organs though prolonged or repeated		NOAEL N/A	

			exposure			
Styrene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure		NOAEL 1.3 mg/l	
Styrene	Inhalation	liver	May cause damage to organs though prolonged or repeated exposure		LOAEL 0.85 mg/l	
Styrene	Inhalation	endocrine system	Some positive data exist, but the data are not sufficient for classification		LOEL 0.6 mg/l	
Styrene	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification		LOEL 0.21 mg/l	
Styrene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		LOAEL 0.09 mg/l	
Styrene	Inhalation	heart | bone, teeth, nails, and/or hair | muscles | kidney and/or bladder	All data are negative		NOAEL 4.3 mg/l	
Styrene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification		LOAEL 500 mg/kg/day	
Styrene	Ingestion	immune system	Some positive data exist, but the data are not sufficient for classification		LOEL 0.5 mg/kg/day	
Styrene	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOEL 400 mg/kg/day	
Styrene	Ingestion	hematopoietic system | liver	Some positive data exist, but the data are not sufficient for classification		LOEL 200 mg/kg/day	
Styrene	Ingestion	heart | respiratory system	All data are negative		NOAEL 35 mg/kg/day	
2,4,7,9-tetramethyldec-5-yne-4,7-diol			Data not available or insufficient for classification			
Limestone			Data not available or insufficient for classification			

1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)			Data not available or insufficient for classification			
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 10 mg/m3	
Titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative		NOAEL N/A	
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure		NOAEL N/A	
Talc	Inhalation	pulmonary fibrosis | respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 18 mg/m3	113 weeks
Quaternary ammonium compounds			Data not available or insufficient for classification			
Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure		NOAEL N/A	

Aspiration Hazard

Name	Value
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-	Not an aspiration hazard
Styrene	Not an aspiration hazard
2,4,7,9-tetramethyldec-5-yne-4,7-diol	Not an aspiration hazard
Limestone	Not an aspiration hazard
1,3-Isobenzofurandione,polymer with 2,5-furandione and 2,2'-oxybis(ethanol)	Not an aspiration hazard
Titanium dioxide	Not an aspiration hazard
Talc	Not an aspiration hazard
Quaternary ammonium compounds	Not an aspiration hazard
Quartz	Not an 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.
9.1C Aquatic toxicity

Ecotoxic to terrestrial vertebrates
9.3C Terrestrial vertebrate toxicity

No product test data available.
No component test data available.

12.2. Persistence and degradability
No test data available.

12.3 : Bioaccumulative potential
No test data available.

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
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. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. 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
UN1866 RESIN SOLUTION, 3, III.

IATA
FORBIDDEN 3M POLICY - PACKAGE SIZE EXCEEDS THE 3M ALLOWABLE AMOUNT

IMO
UN1866 RESIN SOLUTION, 3, III.

SECTION 15: Regulatory information

HSNO Approval number	HSR002669
Group standard name	Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2006
HSNO Hazard classification	Refer to section 2

NZ Inventory of Chemicals (NZIoC) Status

HSNO Controls

Approved handler test certificate	Class 6, required when present in quantities greater than 10 L (HSNO 6.7A substance).
Location and transit Depot certification test	500 L (closed containers greater than 5 L) 1,500 L (closed containers up to and including 5 L) 250 L (open containers)
Hazardous atmosphere zone	100 L (closed containers) 25 L (decanting) 5 L (open occasionally) 1 L (open containers in continuous use)
Fire extinguishers	Two required for 500 L
Emergency response plan	100 L (for a HSNO 9.1A substance) or 1,000 L (for all other substances)
Secondary containment	100 L (for a HSNO 9.1A substance) or 1,000 L (for all other substances)
Tracking	Not required
Warning signage	100 L (for a HSNO 9.1A substance) or 1,000 L (for all other substances)

SECTION 16: Other information

Revision information:
No revision information is available.

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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™ Blue Cream Hardener

Product Identification Numbers
70-0080-0380-1

1.2. Recommended use and restrictions on use

Recommended use
Automotive., Hardener for Body Fillers

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. For transport classification, refer to SECTION 14: Transport Information.

HSNO classification
5.2E Organic peroxide: Type E
6.1E Acute toxicity
6.4A Irritating to the eye
6.5B Skin sensitiser

9.1A Aquatic toxicity

2.2. Label elements
SIGNAL WORD
WARNING!

Symbols:
Flame |Exclamation mark |Environment |

Pictograms

HAZARD STATEMENTS:

H242	Heating may cause a fire.
H313	May be harmful in contact with skin.
H333	May be harmful if inhaled.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P104	Read Safety Data Sheet before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P234	Keep only in original container.
P280B	Wear protective gloves and eye/face protection.
P273	Avoid release to the environment.

Response:

P304 + P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.

Storage:

P411 + P235A	Store at temperatures not exceeding 32C. Keep cool.

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
Dibenzoyl peroxide	94-36-0	30 - 60

Isodecyl benzoate	131298-44-7	10 - 30

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
Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Toxic vapour, gas, particulate.	During combustion.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

5.4. Hazchem code: 1W

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. 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
Collect as much of the spilled material as possible using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

Refer to Section 15: HSNO Controls for more information.

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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
Protect from sunlight. Store at temperatures not exceeding 32C. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

7.3. Approved handler test certificate
Class 5, required when present in quantities greater than 10 L or 10 kg (HSNO 5.2E substance)

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	CAS Nbr	Agency	Limit type	Additional comments
Dibenzoyl peroxide	94-36-0	New Zealand WES	TWA(8 hours):5 mg/m3	
Dibenzoyl peroxide	94-36-0	ACGIH	TWA:5 mg/m3	A4: Not class. as human carcinogin

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/m³: 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.

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: 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 – Nitrile

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

Physical state	Solid.
Specific Physical Form:	Paste
Appearance/Odour	Blue paste with slight ester odour
Odour threshold	*No data available.*
pH	*No data available.*
Melting point/Freezing point	*No data available.*
Boiling point/Initial boiling point/Boiling range	*Not applicable.*
Flash point	111 ºC [*Test Method:*Estimated]
Evaporation rate	*No data available.*
Flammability (solid, gas)	Organic Peroxide: Type E.
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	*No data available.*
Vapour density	*No data available.*
Density	1.2 g/ml

Relative density	1.2 [*Ref Std:*WATER=1] [*Details:*@ 25 C]
Water solubility	Negligible
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	410 ºC [*Test Method:*Estimated]
Decomposition temperature	*No data available.*
Viscosity	70,000 mPa-s - 150,000 mPa-s
Molecular weight	*No data available.*
Volatile organic compounds (VOC)	0 % weight [*Test Method:*calculated per CARB title 2]
Volatile organic compounds (VOC)	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]
VOC less H2O & exempt solvents	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]

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
None known.

10.5 Incompatible materials
Accelerators

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 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
May be harmful if inhaled. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat

pain.

Skin contact
May be harmful in contact with skin.
Contact with the skin during product use is not expected to result in significant irritation. 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. Dust created by cutting, grinding, sanding, or machining may cause 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 ATE2,000 - 5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE5 - 12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Dibenzoyl peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Dibenzoyl peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Dibenzoyl peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Isodecyl benzoate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Isodecyl benzoate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Isodecyl benzoate	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Dibenzoyl peroxide	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Dibenzoyl peroxide	Rabbit	Severe irritant

Skin Sensitisation

Name	Species	Value
Dibenzoyl peroxide	Guinea pig	Sensitising

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

Dibenzoyl peroxide	In Vitro	Not mutagenic
Dibenzoyl peroxide	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Dibenzoyl peroxide	Ingestion	Multiple animal species	Not carcinogenic
Dibenzoyl peroxide	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
Dibenzoyl peroxide	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Dibenzoyl peroxide	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Dibenzoyl peroxide	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	premating & during gestation

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

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

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Isodecyl benzoate	131298-44-7	Water flea	Experimental	48 hours	EC50	0.54 mg/l

Dibenzoyl peroxide	94-36-0	Green Algae	Experimental	72 hours	EC50	0.44 mg/l
Dibenzoyl peroxide	94-36-0	Ricefish	Experimental	96 hours	LC50	0.24 mg/l
Dibenzoyl peroxide	94-36-0	Water flea	Experimental	48 hours	EC50	0.07 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Isodecyl benzoate	131298-44-7	Estimated Chemical Degradation		Photolytic half-life (in air)	2.2 days (t 1/2)	Other methods
Dibenzoyl peroxide	94-36-0	Experimental Hydrolysis		Hydrolytic half-life	5.2 hours (t 1/2)	Other methods
Isodecyl benzoate	131298-44-7	Experimental Aquatic Biodegrad. - Aerobic	28 days	BOD	67 % weight	OECD 301C - MITI test (I)
Dibenzoyl peroxide	94-36-0	Experimental Biodegradation	21 days	BOD	83 % weight	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Isodecyl benzoate	131298-44-7	Estimated Bioconcentration		Bioaccumulation factor	466	Estimated: Bioconcentration factor
Dibenzoyl peroxide	94-36-0	Experimental Bioconcentration		Log Kow	3.46	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 uncured product 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.: UN3108
Proper Shipping Name: ORGANIC PEROXIDE TYPE E, SOLID , (DIBENZOYL PEROXIDE (AS A PASTE), <= 52%)
Class/Division: 5.2
Sub Risk: Not applicable.
Packing Group: Not applicable.
Special Instructions: Limited quantity may apply
Hazchem Code: 1W
IERG: 32

International Air Transport Association (IATA) - Air Transport
UN No.: UN3108
Proper Shipping Name: ORGANIC PEROXIDE TYPE E, SOLID , (DIBENZOYL PEROXIDE (AS A PASTE), <= 52%)
Class/Division: 5.2
Sub Risk: Not applicable.
Packing Group: Not applicable.
Special Instructions: Forbidden, packaging does not meet regulatory agency requirements

International Maritime Dangerous Goods Code (IMDG) - Marine Transport
UN No.: UN3108
Proper Shipping Name: ORGANIC PEROXIDE TYPE E, SOLID , (DIBENZOYL PEROXIDE (AS A PASTE), <= 52%)
Class/Division: 5.2
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.
Special Instructions: Limited quantity may apply

SECTION 15: Regulatory information

HSNO Approval number	HSR002629
Group standard name	Organic Peroxides 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	Class 5, required when present in quantities greater than 10 L or 10 kg (HSNO 5.2E substance)
Location and transit Depot certification test	25 kg
Hazardous atmosphere zone	Not required
Fire extinguishers	One required for 50 L or 50 kg
Emergency response plan	100 L or 100 kg
Secondary containment	100 L or 100 kg
Tracking	Not required
Warning signage	10 L or 10 kg

SECTION 16: Other information

Revision information:

Section 1: Product identification numbers information was modified.
HSNO Classification. information was modified.
Section 2: NZ Health Hazard Statements information was modified.

Section 2: NZ Precautionary Statements - General information was deleted.
Section 2: NZ Precautionary Statements - Response information was modified.
Section 5: Fire - Advice for fire fighters information information was modified.
Section 5: Hazchem code information was deleted.
Section 6: Accidental release environmental information information was modified.
Section 6: Accidental release personal information information was modified.
Section 7: Conditions safe storage information was modified.
Section 8: mg/m³ key information was added.
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 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 added.
Section 8: Skin protection - protective clothing information information was modified.
Section 8: Skin protection - recommended gloves information information was modified.
Section 9: Property description for optional properties information was modified.
Section 9: Viscosity information information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Aspiration Hazard text information was added.
Section 11: Health Effects - Inhalation 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: Respiratory Sensitization text information was added.
Section 11: Skin Sensitization Table information was modified.
Section 11: Specific Target Organ Toxicity - repeated exposure text information was added.
Section 11: Specific Target Organ Toxicity - single exposure text information was added.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information 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 modified.

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