

Safety Data Sheet

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 Issue Date:
 15/11/2020
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 14/05/2017

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

3MTM RelyXTM Fiber Post 3D / RelyXTM UniCem 2 Automix Refill (56958)

Product Identification Numbers

70-2011-4428-7

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Post Cementation

Restrictions on use

For use by dental professionals only.

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:

28-1333-5, 28-1380-6

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.

3MTM RelyXTM Fiber Post 3D / RelyXTM UniCem 2 Automix Refill (56958)

UN No.:UN3077

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (1,12-DODECANE DIMETHYCRYLATE, 2,6-DI-TERT-BUTYL-P-CRESOL; TERT-BUTYL PEROXY-3,5,5-TRIMETHYLHEXANOATE,

Acetic acid, copper (2+) salt, monohydrate)

Class/Division: 9
Packing Group: III

Marine Pollutant: Not applicable.

Hazchem Code: 2Z, 2Z

IERG: 47

Land Transport Rule: Dangerous Goods - Road/Rail Transport

Special Instructions: Not restricted, environmentally hazardous substance exception.

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: FORBIDDEN BY THIS MODE OF TRANSPORT, 3M DIVISION POLICY

Revision information:

Compete document review

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3M New Zealand SDS are available at 3M New Zealand Website: http://solutions.3mnz.co.nz



Safety Data Sheet

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 Document group:
 28-1333-5
 Version number:
 3.00

 Issue Date:
 20/11/2019
 Supersedes date:
 14/05/2017

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

SECTION 1: Identification

1.1. Product identifier

3MTM ESPETM RelyXTM UNICEM 2 AUTOMIX CATALYST

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Cement

Restrictions on use

For use by dental professionals only.

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

Classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996, the Hazardous Substances (Classification) Notice 2017 and Hazardous Substances (Minimum Degrees of Hazard) Notice 2017. Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture

GHS	HSNO
Acute Toxicity (oral): Category 5	6.1E Acute toxicity (oral)
Serious Eye Damage/Irritation: Category 2	6.4A Irritating to the eye
Skin Corrosion/Irritation: Category 3	6.3B Irritating to the skin
Skin Sensitiser: Category 1	6.5B Skin sensitiser
Acute Aquatic Toxicity: Category 1	9.1A Aquatic toxicity (acute)
Chronic Aquatic Toxicity: Category 2	9.1B Aquatic toxicity (chronic)

2.2. Label elements SIGNAL WORD

WARNING!

Symbols:

Exclamation mark | Environment |





HAZARD STATEMENTS:

H303 May be harmful if swallowed. H319 Causes serious eye irritation. H316 Causes mild skin 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:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280A Wear eye/face protection.
P280E Wear protective gloves.

P273 Avoid release to the environment.

P264B Wash exposed skin thoroughly after handling.

P272A Contaminated work clothing must not be allowed out of the workplace.

Response:

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.

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P332 + P313

If skin irritation occurs: Get medical advice/attention.

P333 + P313

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

P362 + P364

Take off contaminated clothing and wash it before reuse.

P321

Specific treatment (see Notes to Physician on this label).

P312 Call a POISON CENTRE or doctor/physician if you feel unwell.

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
(1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl)	27689-12-9	20 - 30
bismethacrylate		
1,12-dodecane dimethycrylate	72829-09-5	< 5

2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis	68909-20-6	< 5
products with silica		
Sodium P-Toluenesulfinate	824-79-3	< 5
Calcium dihydroxide	1305-62-0	< 2

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. Carbon dioxide. Irritant vapours or gases. Condition

During combustion.
During combustion.
During combustion.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

5.4. Hazchem code: 2Z

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.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

7.1. Precautions for safe handling

A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. 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

Store away from heat.

7.3. Certified handler

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.

IngredientCAS NbrAgencyLimit typeAdditional commentsCalcium dihydroxide1305-62-0ACGIHTWA:5 mg/m3

Calcium dihydroxide 1305-62-0 New Zealand TWA(8 hours):5 mg/m3

WES

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 in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety glasses with side shields.

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

See Section 7.1 for additional information on skin protection.

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical stateSolid.Specific Physical Form:Paste

Colour Tooth Odour Slight Acrylic **Odour threshold** No data available. Not applicable. Melting point/Freezing point No data available. Boiling point/Initial boiling point/Boiling range No data available. Flash point No flash point No data available. **Evaporation rate** Not classified Flammability (solid, gas) Flammable Limits(LEL) No data available No data available. Flammable Limits(UEL) No data available. Vapour pressure Vapour density No data available.

Relative density 2 - 2.2 [*Ref Std*:WATER=1]

Water solubility Nil

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Autoignition temperatureNo data available.Decomposition temperatureNo data available.ViscosityNo data available.Molecular weightNo data available.Percent volatileNo data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Density

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

2 - 2.2 g/cm³

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Substance
None known.

Condition

Refer to Section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

This product may have a characteristic odour; however, no adverse health effects are anticipated.

Skin contact

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

Eye contact

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

Ingestion

May be harmful if swallowed.

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

Additional Health Effects:

Carcinogenicity:

Exposures needed to cause the following health effect(s) are not expected during normal, intended use:

Contains a chemical or chemicals which can cause cancer.

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	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
(1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
(1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate	Ingestion	Rat	LD50 > 17,600 mg/kg
1,12-dodecane dimethycrylate	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
1,12-dodecane dimethycrylate	Ingestion	similar compoun ds	LD50 2000-5000 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Sodium P-Toluenesulfinate	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
Sodium P-Toluenesulfinate	Ingestion	Rat	LD50 3,200 mg/kg
Calcium dihydroxide	Dermal	Rabbit	LD50 > 2,500 mg/kg
Calcium dihydroxide	Ingestion	Rat	LD50 7,340 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
(1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate	Rabbit	No significant irritation
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products	Rabbit	No significant irritation
with silica		
Calcium dihydroxide	Human	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
(1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate	Rabbit	Mild irritant
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products	Rabbit	No significant irritation
with silica		
Calcium dihydroxide	Rabbit	Corrosive

Skin Sensitisation

Simi Sensitisation		
Name	Species	Value
(1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate	Guinea	Not classified
	pig	
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products	Human	Not classified
with silica	and	
	animal	

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
(1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate	In Vitro	Not mutagenic
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products	In Vitro	Not mutagenic
with silica		

Carcinogenicity

Name	Route	Species	Value
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester,	Not	Mouse	Some positive data exist, but the data are not
hydrolysis products with silica	specified.		sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Specific Funger Organ	peeme ranger organ romenty single exposure							
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration		
Calcium dihydroxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL 2.5 mg/m3	20 minutes		

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
2-Propenoic acid, 2- methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

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.

3MTM ESPETM RelyXTM UNICEM 2 AUTOMIX CATALYST

Acute Aquatic Toxicity: Category 1 (HSNO 9.1A Aquatic toxicity) Chronic Aquatic Toxicity: Category 2 (HSNO 9.1B Aquatic toxicity)

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
(1-	27689-12-9	Green algae	Experimental	72 hours	EC50	>100 mg/l
Methylethylide						
ne)bis(4, 1-						
phenyleneoxy-						
3, 1-						
propanediyl)						
bismethacrylate		777 / O	E 1	40.1	EGEO	. 100 //
(1-	27689-12-9	Water flea	Experimental	48 hours	EC50	>100 mg/l
Methylethylide						
ne)bis(4, 1- phenyleneoxy-						
3, 1-						
propanediyl)						
bismethacrylate						
(1-	27689-12-9	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Methylethylide	27007 12 7	Green argue	Ехреннения	72 110415	TOLE	100 mg/1
ne)bis(4, 1-						
phenyleneoxy-						
3, 1-						
propanediyl)						
bismethacrylate						
1,12-dodecane	72829-09-5	Green Algae	Experimental	72 hours	EC50	17 ug/l
dimethycrylate						
1,12-dodecane	72829-09-5	Water flea	Experimental	48 hours	EC50	>100 mg/l
dimethycrylate						
1,12-dodecane	72829-09-5	Green Algae	Experimental	72 hours	Effect	6.4 ug/l
dimethycrylate					Concentration	
2 D :	(0000 20 (A 1	E 4 1	72.1	10%	> 100 /1
2-Propenoic	68909-20-6	Algae	Estimated	72 hours	EC50	>100 mg/l
acid, 2-methyl-,						
(trimetoxysilyl)						
propyl ester,						
hydrolysis						
products with						
silica						
Sodium P-	824-79-3	Fathead	Estimated	96 hours	LC50	>400 mg/l
Toluenesulfinat		minnow				
e						
Sodium P-	824-79-3	Green Algae	Estimated	96 hours	EC50	230 mg/l
Toluenesulfinat						
e						
Sodium P-	824-79-3	Water flea	Estimated	48 hours	EC50	>400 mg/l
Toluenesulfinat						
e a ti a	0.2.4.70.7			0.61	11000	
Sodium P-	824-79-3	Green Algae	Estimated	96 hours	NOEC	31 mg/l
Toluenesulfinat						
e C. 1 :	1205 (2.0	F 41 1	E / 1	061	1.050	4 (20 /1
Calcium	1305-62-0	Fathead	Estimated	96 hours	LC50	4,630 mg/l

3MTM ESPETM RelyXTM UNICEM 2 AUTOMIX CATALYST

dihydroxide		minnow				
Calcium	1305-62-0	Green Algae	Estimated	72 hours	EC50	>4,000 mg/l
dihydroxide		_				_
Calcium	1305-62-0	Water flea	Estimated	48 hours	EC50	2,400 mg/l
dihydroxide						_

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
(1-	27689-12-9	Experimental	28 days	CO2 evolution	7-12 % weight	OECD 301B - Modified
Methylethylide		Biodegradation	-			sturm or CO2
ne)bis(4, 1-						
phenyleneoxy-						
3, 1-						
propanediyl)						
bismethacrylate						
1,12-dodecane	72829-09-5	Experimental	28 days	CO2 evolution	97.3 %CO2	OECD 301B - Modified
dimethycrylate		Biodegradation			evolution/THC	sturm or CO2
					O2 evolution	
2-Propenoic	68909-20-6	Data not			N/A	
acid, 2-methyl-,		availbl-				
3-		insufficient				
(trimetoxysilyl)						
propyl ester,						
hydrolysis						
products with						
silica						
Sodium P-	824-79-3	Experimental	28 days	BOD	91 %	OECD 301C - MITI
Toluenesulfinat		Biodegradation			BOD/ThBOD	test (I)
e						
Calcium	1305-62-0	Data not			N/A	
dihydroxide		availbl-				
		insufficient				

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
(1-	27689-12-9	Estimated		Log Kow	7.61	Estimated: Octanol-
Methylethylide		Bioconcentrati				water partition
ne)bis(4, 1-		on				coefficient
phenyleneoxy-						
3, 1-						
propanediyl)						
bismethacrylate						
1,12-dodecane	72829-09-5	Estimated		Bioaccumulatio	6.6	Estimated:
dimethycrylate		Bioconcentrati		n factor		Bioconcentration factor
		on				
2-Propenoic	68909-20-6	Data not	N/A	N/A	N/A	N/A
acid, 2-methyl-,		available or				
3-		insufficient for				
(trimetoxysilyl)		classification				
propyl ester,						
hydrolysis						
products with						
silica						

Sodium P-	824-79-3	Estimated		Bioaccumulatio	3.9	Estimated:
Toluenesulfinat		Bioconcentrati		n factor		Bioconcentration factor
e		on				
Calcium	1305-62-0	Data not	N/A	N/A	N/A	N/A
dihydroxide		available or				
		insufficient for				
		classification				

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

In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

Dispose of waste product in a permitted industrial waste facility.

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.: UN3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (1,12-DODECANE

DIMETHYCRYLATE, 2,6-DI-TERT-BUTYL-P-CRESOL)

Class/Division: 9

Sub Risk: Not applicable. **Packing Group:** III

Hazchem Code: 2Z

IERG: 47

International Air Transport Association (IATA) - Air Transport

UN No.: UN3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (1,12-DODECANE

DIMETHYCRYLATE, 2,6-DI-TERT-BUTYL-P-CRESOL)

Class/Division: 9
Sub Risk: Not applicable.
Packing Group: III

International Maritime Dangerous Goods Code (IMDG) - Marine Transport

UN No.: UN3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (1,12-DODECANE

DIMETHYCRYLATE, 2,6-DI-TERT-BUTYL-P-CRESOL)

Class/Division: 9
Sub Risk: Not applicable.
Packing Group: III

Marine Pollutant: Not applicable.

Special Instructions: Forbidden by this mode of transport

3MTM ESPETM RelyXTM UNICEM 2 AUTOMIX CATALYST

SECTION 15: Regulatory information

HSNO Approval number HSR002558

Group standard name Dental Products (Subsidiary Hazard) Group Standard 2017

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.

Controls in accordance with the Health and Safety at Work (Hazardous Substances) Regulations 2017

Certified handler Not required
Location Compliance Certificate 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:

Complete document review.

Document group:	28-1333-5	Version number:	3.00
Issue Date:	20/11/2019	Supersedes date:	14/05/2017

Key to abbreviations and acronyms

GHS means the Globally Harmonised System of Classification and Labelling of Chemicals, 5th revised edition 2013

HSNO means Hazardous Substances and New Organisms Act 1996

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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 (Safety Data Sheets) Notice 2017.

SECTION 1: Identification

1.1. Product identifier

3MTM ESPETM RelyXTM UNICEM 2 AUTOMIX Base Paste

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Cement

Restrictions on use

For use by dental professionals only.

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

Classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996, the Hazardous Substances (Classification) Notice 2017 and Hazardous Substances (Minimum Degrees of Hazard) Notice 2017. Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture

GHS	HSNO
Acute Toxicity (oral): Category 5	6.1E Acute toxicity (oral)
Skin Corrosion/Irritation: Category 3	6.3B Irritating to the skin
Skin Sensitiser: Category 1	6.5B Skin sensitiser
Chronic Aquatic Toxicity: Category 2	9.1B Aquatic toxicity (chronic)
Acute Aquatic Toxicity: Category 2	9.1D Aquatic toxicity (acute)

2.2. Label elements SIGNAL WORD

WARNING!

Symbols:

Exclamation mark | Environment |





HAZARD STATEMENTS:

H303 May be harmful if swallowed. H316 Causes mild skin irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280E Wear protective gloves.

P273 Avoid release to the environment.

P272A Contaminated work clothing must not be allowed out of the workplace.

Response:

Disposal:

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.
P332 + P313

If skin irritation occurs: Get medical advice/attention.
P333 + P313

If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364

Take off contaminated clothing and wash it before reuse.
P321

Specific treatment (see Notes to Physician on this label).
P312

Call a POISON CENTRE or doctor/physician if you feel unwell.

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
2-Propenoic acid, 2-methyl-, 1,1'-[1-(hydroxymethyl)-1,2-ethanediyl] ester, reaction products with 2-hydroxy-1,3-propanediyl dimethacrylate and phosphorus oxide	1224866-76-5	20 - 30
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	10 - 20
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	68909-20-6	1 - 10
Sodium Persulphate	7775-27-1	< 3

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

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

Skin contact

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

Eye contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide. Carbon dioxide.

Irritant vapours or gases.

Condition

During combustion. During combustion. During combustion.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

5.4. Hazchem code: 2Z

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.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. 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 in accordance with

applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

7.1. Precautions for safe handling

A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. 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. Do not get in eyes.

7.2. Conditions for safe storage including any incompatibilities

Store away from heat.

7.3. Certified handler

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.

Ingredient CAS Nbr Agency Limit type Additional comments

PERSULFATE COMPOUNDS 7775-27-1 ACGIH TWA(as persulfate):0.1 mg/m3

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 in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety glasses with side shields.

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

See Section 7.1 for additional information on skin protection.

3MTM ESPETM RelyXTM UNICEM 2 AUTOMIX Base Paste

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical stateSolid.Specific Physical Form:Paste

Colour Tooth Odour Slight Acrylic **Odour threshold** No data available. pН Not applicable. Melting point/Freezing point No data available. Boiling point/Initial boiling point/Boiling range No data available. Flash point No flash point **Evaporation rate** No data available. Flammability (solid, gas) Not classified No data available. Flammable Limits(LEL) Flammable Limits(UEL) No data available. Vapour pressure No data available.

Density 2 - 2.2 g/cm3 **Relative density** 2 - 2.2 [*Ref Std:* WATER=1]

Water solubility Negligible

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Autoignition temperatureNo data available.Decomposition temperatureNo data available.ViscosityNo data available.Molecular weightNo data available.Percent volatileNo data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

No data available.

10.2 Chemical stability

Vapour density

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

None known.

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

This product may have a characteristic odour; however, no adverse health effects are anticipated.

Skin contact

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

Eye contact

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

Ingestion

May be harmful if swallowed.

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and 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	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
2-Propenoic acid, 2-methyl-, 1,1'-[1-(hydroxymethyl)-1,2-ethanediyl] ester, reaction products with 2-hydroxy-1,3-propanediyl dimethacrylate and phosphorus oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
2-Propenoic acid, 2-methyl-, 1,1'-[1-(hydroxymethyl)-1,2-ethanediyl] ester, reaction products with 2-hydroxy-1,3-propanediyl dimethacrylate and phosphorus oxide	Ingestion	Rat	LD50 > 2,000 mg/kg
2,2'-ethylenedioxydiethyl dimethacrylate	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
2,2'-ethylenedioxydiethyl dimethacrylate	Ingestion	Rat	LD50 10,837 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Sodium Persulphate	Dermal	Rabbit	LD50 > 10,000 mg/kg

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Sodium Persulphate	Inhalation-	Rat	LC50 > 47.93 mg/l
	Dust/Mist		-
	(4 hours)		
Sodium Persulphate	Ingestion	Rat	LD50 895 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
2-Propenoic acid, 2-methyl-, 1,1'-[1-(hydroxymethyl)-1,2-ethanediyl] ester, reaction products with 2-hydroxy-1,3-propanediyl dimethacrylate and phosphorus oxide	Rabbit	Minimal irritation
2,2'-ethylenedioxydiethyl dimethacrylate	Guinea pig	Mild irritant
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Overall product		No significant irritation
2-Propenoic acid, 2-methyl-, 1,1'-[1-(hydroxymethyl)-1,2-ethanediyl] ester, reaction products with 2-hydroxy-1,3-propanediyl dimethacrylate and phosphorus oxide	Rabbit	Corrosive
2,2'-ethylenedioxydiethyl dimethacrylate	Professio nal judgemen t	Moderate irritant
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Rabbit	No significant irritation

Skin Sensitisation

Skii Sensitisation		I
Name	Species	Value
2-Propenoic acid, 2-methyl-, 1,1'-[1-(hydroxymethyl)-1,2-ethanediyl] ester,	Guinea	Not classified
reaction products with 2-hydroxy-1,3-propanediyl dimethacrylate and phosphorus	pig	
oxide		
2,2'-ethylenedioxydiethyl dimethacrylate	Human	Sensitising
	and	
	animal	
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products	Human	Not classified
with silica	and	
	animal	

Respiratory Sensitisation

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

Germ Cell Mutagenicity

our meaning many							
Name	Route	Value					
2-Propenoic acid, 2-methyl-, 1,1'-[1-(hydroxymethyl)-1,2-ethanediyl] ester, reaction products with 2-hydroxy-1,3-propanediyl dimethacrylate and phosphorus oxide	In Vitro	Not mutagenic					
2,2'-ethylenedioxydiethyl dimethacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification					
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	In Vitro	Not mutagenic					

Carcinogenicity

Name	Route	Species	Value
2,2'-ethylenedioxydiethyl dimethacrylate	Dermal	Mouse	Not carcinogenic
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester,	Not	Mouse	Some positive data exist, but the data are not

hydrolysis products with silica	specified.	sufficient for classification
---------------------------------	------------	-------------------------------

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
2,2'-ethylenedioxydiethyl dimethacrylate	Ingestion	Not classified for female reproduction	Mouse	NOAEL 1 mg/kg/day	1 generation
2,2'-ethylenedioxydiethyl dimethacrylate	Ingestion	Not classified for male reproduction	Mouse	NOAEL 1 mg/kg/day	1 generation
2,2'-ethylenedioxydiethyl dimethacrylate	Ingestion	Not classified for development	Mouse	NOAEL 1 mg/kg/day	1 generation
2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Specific Target Organ Toxicity - repeated exposure

specific Target Organ Toxicity - repeated exposure							
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration	
2,2'-ethylenedioxydiethyl dimethacrylate	Dermal	kidney and/or bladder blood	Not classified	Mouse	NOAEL 833 mg/kg/day	78 weeks	
2-Propenoic acid, 2- methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure	

Aspiration Hazard

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

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

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.

Acute Aquatic Toxicity: Category 2 (HSNO 9.1D Aquatic toxicity) Chronic Aquatic Toxicity: Category 2 (HSNO 9.1B Aquatic toxicity)

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
2-Propenoic	1224866-76-5	Green algae	Endpoint not	72 hours	EC50	>100 mg/l
acid, 2-methyl-,			reached	1		
1,1'-[1-			T GWGHIGH			
(hydroxymethy						
1)-1,2-						
ethanediyl]						
ester, reaction						
products with						
2-hydroxy-1,3-						
propanediyl						
dimethacrylate						
and phosphorus						
oxide						
2-Propenoic	1224866-76-5	Water flea	Experimental	48 hours	EC50	>100 mg/l
acid, 2-methyl-,	122.000 70 0	, , alex rea				
1,1'-[1-						
(hydroxymethy						
1)-1,2-						
ethanediyl]						
ester, reaction						
products with						
2-hydroxy-1,3-						
propanediyl						
dimethacrylate						
and phosphorus						
oxide						
2-Propenoic	1224866-76-5	Green algae	Experimental	72 hours	NOEC	56 mg/l
acid, 2-methyl-,	122 1000 70 5	Green uigue	Emperimentar	/2 Hours	I TOEC	J U III G
1,1'-[1-						
(hydroxymethy						
1)-1,2-						
ethanediyl]						
ester, reaction						
products with						
2-hydroxy-1,3-						
propanediyl						
dimethacrylate						
and phosphorus						
oxide						
2,2'-	109-16-0	Green Algae	Experimental	72 hours	EC50	>100 mg/l
ethylenedioxyd			F	1		<i>G</i>
iethyl						
dimethacrylate						
2,2'-	109-16-0	Zebra Fish	Experimental	96 hours	LC50	16.4 mg/l
ethylenedioxyd						
iethyl						
dimethacrylate						
2,2'-	109-16-0	Green algae	Experimental	72 hours	NOEC	18.6 mg/l
ethylenedioxyd		Sicon uigue	Zapermiental	, 2 nours	1,020	10.0 1116/1
iethyl						
dimethacrylate						
2,2'-	109-16-0	Water flea	Experimental	21 days	NOEC	32 mg/l
ethylenedioxyd	107 10 0	, atti iida	Zaporinicitai	Liduys	T.OLC	52 1116/1
iethyl						
1011191	<u> </u>	1				1

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dimethacrylate						
2-Propenoic	68909-20-6	Algae	Estimated	72 hours	EC50	>100 mg/l
acid, 2-methyl-,						
3-						
(trimetoxysilyl)						
propyl ester,						
hydrolysis						
products with						
silica						
Sodium	7775-27-1	Algae other	Estimated	72 hours	EC50	320 mg/l
Persulphate						
Sodium	7775-27-1	Copepods	Estimated	48 hours	EC50	21.22 mg/l
Persulphate						
Sodium	7775-27-1	Rainbow trout	Estimated	96 hours	LC50	76.3 mg/l
Persulphate						
Sodium	7775-27-1	Algae other	Estimated	72 hours	NOEC	32 mg/l
Persulphate						

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
2-Propenoic	1224866-76-5	Experimental	28 days	BOD	82 %	OECD 301F -
acid, 2-methyl-,		Biodegradation			BOD/ThBOD	Manometric
1,1'-[1-						respirometry
(hydroxymethy						
1)-1,2-						
ethanediyl]						
ester, reaction						
products with						
2-hydroxy-1,3-						
propanediyl						
dimethacrylate						
and phosphorus						
oxide						
2,2'-	109-16-0	Experimental	28 days	CO2 evolution	85 % weight	OECD 301B - Modified
ethylenedioxyd		Biodegradation				sturm or CO2
iethyl						
dimethacrylate						
2-Propenoic	68909-20-6	Data not			N/A	
acid, 2-methyl-,		availbl-				
3-		insufficient				
(trimetoxysilyl)						
propyl ester,						
hydrolysis						
products with						
silica						
Sodium	7775-27-1	Data not			N/A	
Persulphate		availbl-				
		insufficient				

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
2-Propenoic	1224866-76-5	Experimental		Log Kow	-0.2	Other methods
acid, 2-methyl-,		Bioconcentrati				

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1,1'-[1-		on				
(hydroxymethy						
1)-1,2-						
ethanediyl]						
ester, reaction						
products with						
2-hydroxy-1,3-						
propanediyl						
dimethacrylate						
and phosphorus						
oxide						
2,2'-	109-16-0	Experimental		Log Kow	2.3	Other methods
ethylenedioxyd		Bioconcentrati				
iethyl		on				
dimethacrylate						
2-Propenoic	68909-20-6	Data not	N/A	N/A	N/A	N/A
acid, 2-methyl-,		available or				
3-		insufficient for				
(trimetoxysilyl)		classification				
propyl ester,						
hydrolysis						
products with						
silica						
Sodium	7775-27-1	Data not	N/A	N/A	N/A	N/A
Persulphate		available or				
		insufficient for				
		classification				

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

In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

Incinerate in a permitted waste incineration facility.

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.: UN3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (TERT-BUTYL

PEROXY-3,5,5-TRIMETHYLHEXANOATE, Acetic acid, copper(2+) salt, monohydrate)

Class/Division: 9

Sub Risk: Not applicable. **Packing Group:** III

Hazchem Code: 2Z

IERG: 47

International Air Transport Association (IATA) - Air Transport

UN No.: UN3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (TERT-BUTYL

PEROXY-3,5,5-TRIMETHYLHEXANOATE, Acetic acid, copper(2+) salt, monohydrate)

Class/Division: 9

Sub Risk: Not applicable. Packing Group: III

International Maritime Dangerous Goods Code (IMDG) - Marine Transport

UN No.: UN3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (TERT-BUTYL

PEROXY-3,5,5-TRIMETHYLHEXANOATE, Acetic acid, copper(2+) salt, monohydrate)

Class/Division: 9

Sub Risk: Not applicable. Packing Group: III

Marine Pollutant: Not applicable.

Special Instructions: Forbidden by this mode of transport

SECTION 15: Regulatory information

HSNO Approval number

Group standard name Dental Products (Subsidiary Hazard) Group Standard 2017

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.

Controls in accordance with the Health and Safety at Work (Hazardous Substances) Regulations 2017

Certified handler Not required Not required Location Compliance Certificate 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

100 L or 100 kg (for a HSNO 9.1A substance); or 1,000 L or 1,000 kg (for a Warning signage

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

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Complete document review.

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Key to abbreviations and acronyms

GHS means the Globally Harmonised System of Classification and Labelling of Chemicals, 5th revised edition 2013 **HSNO** means Hazardous Substances and New Organisms Act 1996

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