



<u>Safety Data Sheet Cover-Sheet</u> – This page provides additional New Zealand specific information for this product, and must be read in conjunction with the Safety Data Sheet (SDS) attached.

Product Name: RelyX™ Veneer Cement Refills

Manufacturer: 3M

SDS Expiry: 08 July 2024

Supplier Details: Henry Schein New Zealand

23 William Pickering Drive, Albany

PO Box 101 140, North Shore, Auckland 0745

Ph. 0800 808 855

www.henryschein.co.nz

Emergency Contacts: Poisons/Hazardous Chemical Info Centre – 0800POISON/0800764766 (24 Hours)

Phone 111 for Fire, Ambulance or Police

HSNO Class/Category: 6

HSNO Group Standard: Dental Products Toxic 6.7 Group Standard 2017 HSR002560

Statements/Pictograms: As per attached Safety Data Sheet (SDS)

Date Prepared: This coversheet was prepared on 17 October 2019

This SDS coversheet has been produced by Henry Schein NZ and has been prepared in accordance with NZ EPA advice on making overseas SDS compliant to HSNO Act. The above information is based on the present state of our knowledge of the product at the time of publication. It is given in good faith, no warranty is implied with respect to the quality or the specifications of the product. Users must satisfy that the product is entirely suitable for their purpose. The SDS and this coversheet may be revised from time to time, please ensure you have a current copy.





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 Veneer Cement Refills

Product Identification Numbers

70-2010-3183-1 70-2010-3185-6 70-2010-3186-4

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Veneer 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

2.2. Label elements SIGNAL WORD

WARNING!

Symbols:

Exclamation mark |

Pictograms



HAZARD STATEMENTS:

H303 May be harmful if swallowed.

H320 Causes eye irritation. H316 Causes mild skin irritation.

H317 May cause an allergic skin reaction.

PRECAUTIONARY STATEMENTS

Prevention:

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

P280E Wear protective gloves.

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 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
Silane treated ceramic	444758-98-9	55 - 65
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	10 - 20
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]	1565-94-2	10 - 20
bismethacrylate		
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis	248596-91-0	1 - 10
products with silica		
Reacted Polycaprolactone Polymer	None	1 - 10

Titanium dioxide	13463-67-7	< 1
Diphenyliodonium hexafluorophosphate	58109-40-3	< 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.

Eve contact

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

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

If swallowed

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

SubstanceConditionCarbon monoxide.During combustion.Carbon dioxide.During combustion.

5.3. Special protective actions for fire-fighters

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

5.4. Hazchem code: Not applicable.

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. Wash contaminated clothing before reuse. Do not get in eyes.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

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 commentsTitanium dioxide13463-67-7ACGIHTWA:10 mg/m³A4: Not class. as human carcinogin

Titanium dioxide 13463-67-7 New Zealand TWA(8 hours):10 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 state Solid.
Specific Physical Form: Paste

Appearance/Odour Characteristic odour, various shades
Odour threshold No data available.

Odour threshold pН No data available. Melting point/Freezing point No data available. Boiling point/Initial boiling point/Boiling range *Not applicable.* Flash point No flash point Not applicable. **Evaporation rate** Flammability (solid, gas) Not classified Flammable Limits(LEL) Not applicable. Flammable Limits(UEL) Not applicable. Not applicable. Vapour pressure Vapour density Not applicable. **Density** 1.102 g/cm3

Relative density 1.102 [*Ref Std*:WATER=1]

Water solubilityNegligibleSolubility- non-waterNo data available.Partition coefficient: n-octanol/waterNot applicable.Autoignition temperatureNot applicable.Decomposition temperatureNo data available.ViscosityNot applicable.

Decomposition temperature

No data available.

Not applicable.

Molecular weight

Volatile organic compounds (VOC)

Percent volatile

VOC less H2O & exempt solvents

No data available.

Not applicable.

Not applicable.

Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

None known.

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

Moderate 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.

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
Silane treated ceramic	Dermal		LD50 estimated to be > 5,000 mg/kg
Silane treated ceramic	Ingestion		LD50 estimated to be 2,000 - 5,000 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
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Dermal		LD50 estimated to be > 5,000 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion		LD50 estimated to be > 5,000 mg/kg
Reacted Polycaprolactone Polymer	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
Reacted Polycaprolactone Polymer	Ingestion	similar compoun ds	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 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Diphenyliodonium hexafluorophosphate	Ingestion	Rat	LD50 32 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Silane treated ceramic	similar compoun	No significant irritation
2.21 othylanodiayydiathyl dimathaayylata	ds Guinea	Mild irritant
2,2'-ethylenedioxydiethyl dimethacrylate	pig	Wild irritant
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]	Not	Minimal irritation
bismethacrylate	available	
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products	Professio	No significant irritation
with silica	nal	
	judgemen	
	t	
Titanium dioxide	Rabbit	No significant irritation
Diphenyliodonium hexafluorophosphate	Rabbit	No significant irritation

Name	Species	Value
Silane treated ceramic	similar compoun ds	Mild irritant
2,2'-ethylenedioxydiethyl dimethacrylate	Professio nal judgemen t	Moderate irritant
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Not available	Moderate irritant
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Professio nal judgemen	No significant irritation

	t	
Titanium dioxide	Rabbit	No significant irritation
Diphenyliodonium hexafluorophosphate	Rabbit	Mild irritant

Skin Sensitisation

Skiii Schsitisation		
Name	Species	Value
	1	
C:1	-::1	N-4 -1: C1
Silane treated ceramic	similar	Not classified
	compoun	
	ds	
2,2'-ethylenedioxydiethyl dimethacrylate	Human	Sensitising
	and	
	animal	
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]	Guinea	Sensitising
bismethacrylate	pig	
Titanium dioxide	Human	Not classified
	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			
2,2'-ethylenedioxydiethyl dimethacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification		
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification		
Titanium dioxide	In Vitro	Not mutagenic		
Titanium dioxide	In vivo	Not mutagenic		
Diphenyliodonium hexafluorophosphate	In Vitro	Some positive data exist, but the data are not sufficient for classification		

Carcinogenicity

Name	Route	Species	Value
Silane treated ceramic	Inhalation	similar	Some positive data exist, but the data are not
		compoun	sufficient for classification
		ds	
2,2'-ethylenedioxydiethyl dimethacrylate	Dermal	Mouse	Not carcinogenic
Titanium dioxide	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
Titanium dioxide	Inhalation	Rat	Carcinogenic.

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
(1-methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not classified for female reproduction	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
(1-methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not classified for male reproduction	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]	Ingestion	Not classified for development	Mouse	NOAEL 0.8 mg/kg/day	premating & during

|--|

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Specific Turget Organ Tolkiery Single exposure								
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration		
Diphenyliodonium hexafluorophosphate	Inhalation	respiratory irritation	Not classified	Not available	Irritation Equivocal			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Silane treated ceramic	Inhalation	pulmonary fibrosis	Not classified	similar compoun ds	NOAEL Not available	
2,2'-ethylenedioxydiethyl dimethacrylate	Dermal	kidney and/or bladder blood	Not classified	Mouse	NOAEL 833 mg/kg/day	78 weeks
(1- methylethylidene)bis[4,1- phenyleneoxy(2-hydroxy- 3,1-propanediyl)] bismethacrylate	Ingestion	endocrine system liver nervous system kidney and/or bladder	Not classified	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	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

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Silane treated	444758-98-9		Data not			
ceramic			available or			
			insufficient for			
			classification			
2,2'-	109-16-0	Green Algae	Experimental	72 hours	EC50	>100 mg/l
ethylenedioxyd						
iethyl						
dimethacrylate						
2,2'-	109-16-0	Zebra Fish	Experimental	96 hours	LC50	16.4 mg/l
ethylenedioxyd						
iethyl						

ethylenedioxyd icityl dimethacrylate 2,2'- ethylenedioxyd icityl dimethacrylate 2,2'- ethylenedioxyd icityl dimethacrylate (1-	dimethacrylate						
ethylenedioxyd icityl dimethacrylate 2,2'- ethylenedioxyd icityl dimethacrylate (1-	2,2'-	109-16-0	Green algae	Experimental	72 hours	NOEC	18.6 mg/l
iethyl dimethacrylate 2,2'- ethylenedioxyd iethyl dimethacrylate (1-	ethylenedioxyd			1			
dimethacrylate 2,2'- ethylenedioxyd iethyl dimethacrylate (I- methylethylide ne)bis[4,1- phenyleneoxy(2-hydroxy-3,1- propanediyl)] bismethacrylate 22 Mays NOEC 32 mg/l Data not available or insufficient for classification Experimental Jak63-67-7 Fathead minnow Titanium dioxide Titanium 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l dioxide Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	iethyl						
2,2'- ethylenedioxyd iethyl dimethacrylate (1- methylethylide ne)bis[4,1- phenyleneoxy(2-hydroxy-3,1- propanediyl) bismethacrylate 2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl) propyl ester, hydrolysis products with silica Reacted Polycaprolacto ne Polymer Titanium dioxide Titanium dioxide Titanium Titanium dioxide Titanium Titan							
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dimethacrylate (1-							
Data not available or insufficient for classification	dimethacrylate						
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ne)bis[4,1- phenyleneoxy(2-hydroxy-3,1- propanediyl)] bismethacrylate 2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl) propyle ester, hydrolysis products with silica Reacted Polycaprolacto ne Polymer Titanium dioxide Titanium Titanium Diaxide Diaxide Diaxide Diaxide Diaxide	methylethylide			available or			
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Reacted Polycaprolacto ne Polymer Data not available or insufficient for classification Titanium 13463-67-7 Diatom Experimental 72 hours EC50 >10,000 mg/l Titanium 13463-67-7 Fathead Experimental 96 hours LC50 >100 mg/l dioxide Titanium 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l dioxide Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	products with						
Polycaprolacto ne Polymer available or insufficient for classification Titanium 13463-67-7 Diatom Experimental 72 hours EC50 >10,000 mg/l Titanium 13463-67-7 Fathead Experimental 96 hours LC50 >100 mg/l Titanium 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	silica						
ne Polymer insufficient for classification Titanium 13463-67-7 Diatom Experimental 72 hours EC50 >10,000 mg/l Titanium 13463-67-7 Fathead Experimental 96 hours LC50 >100 mg/l Titanium 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	Reacted	None		Data not			
Classification Titanium 13463-67-7 Diatom Experimental 72 hours EC50 >10,000 mg/l Titanium 13463-67-7 Fathead Experimental 96 hours LC50 >100 mg/l Titanium 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	Polycaprolacto			available or			
Titanium dioxide 13463-67-7 Diatom Experimental 72 hours EC50 >10,000 mg/l Titanium dioxide 13463-67-7 Fathead minnow Experimental 96 hours LC50 >100 mg/l Titanium dioxide 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l Titanium dioxide 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	ne Polymer			insufficient for			
dioxide Titanium 13463-67-7 Fathead Experimental 96 hours LC50 >100 mg/l dioxide Titanium 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l dioxide Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l				classification			
Titanium dioxide 13463-67-7 Fathead minnow Experimental 96 hours LC50 >100 mg/l Titanium 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l dioxide Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	Titanium	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
dioxide minnow Tatanium 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l dioxide Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	dioxide						
Titanium dioxide 13463-67-7 Water flea Experimental 48 hours EC50 >100 mg/l	Titanium	13463-67-7	Fathead	Experimental	96 hours	LC50	>100 mg/l
dioxide Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	dioxide		minnow				
Titanium 13463-67-7 Diatom Experimental 72 hours NOEC 5,600 mg/l	Titanium	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
	dioxide						
dioxide	Titanium	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
WE WILLIAM	dioxide						
Diphenyliodoni 58109-40-3 Water flea Experimental 48 hours EC50 9.5 mg/l	Diphenyliodoni	58109-40-3	Water flea	Experimental	48 hours	EC50	9.5 mg/l
um	um			_			
hexafluorophos	hexafluorophos						
phate	phate						

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Silane treated ceramic	444758-98-9	Data not availbl-insufficient			N/A	
2,2'- ethylenedioxyd iethyl dimethacrylate	109-16-0	Experimental Biodegradation	28 days	CO2 evolution	85 % weight	OECD 301B - Modified sturm or CO2
(1- methylethylide ne)bis[4,1- phenyleneoxy(1565-94-2	Estimated Biodegradation	28 days	BOD	32 % weight	OECD 301C - MITI test (I)

2-hydroxy-3,1-					
propanediyl)]					
bismethacrylate					
	248596-91-0	Data not		N/A	
acid, 2-methyl-,		availbl-			
3-		insufficient			
(trimetoxysilyl)					
propyl ester,					
hydrolysis					
products with					
silica					
	None	Data not		N/A	
Polycaprolacto		availbl-			
ne Polymer		insufficient			
Titanium	13463-67-7	Data not		N/A	
dioxide		availbl-			
		insufficient			
Diphenyliodoni	58109-40-3	Data not		N/A	
um		availbl-			
hexafluorophos		insufficient			
phate					

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Silane treated	444758-98-9	Data not	N/A	N/A	N/A	N/A
ceramic		available or				
		insufficient for				
		classification				
2,2'-	109-16-0	Experimental		Log Kow	2.3	Other methods
ethylenedioxyd		Bioconcentrati				
iethyl		on				
dimethacrylate						
(1-	1565-94-2	Estimated		Bioaccumulatio	5.8	Estimated:
methylethylide		Bioconcentrati		n factor		Bioconcentration factor
ne)bis[4,1-		on				
phenyleneoxy(
2-hydroxy-3,1-						
propanediyl)]						
bismethacrylate			3.7/4	27/1	3.7/4	77/1
2-Propenoic	248596-91-0	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						
Reacted	None	Data not	N/A	N/A	N/A	N/A
Polycaprolacto	INOILE	available or	11/11	IN/A	1 N/ A	1N/ <i>F</i> 1
ne Polymer		insufficient for				
ne i orymer		classification				
Titanium	13463-67-7	Experimental	42 days	Bioaccumulatio	9.6	Other methods
dioxide		BCF-Carp		n factor		
Diphenyliodoni	58109-40-3	Data not	N/A	N/A	N/A	N/A

um	availa	able or		
hexafluorophos	insuf	ficient for		
phate	classi	ification		

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. As a disposal alternative, 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.: Not applicable.

Proper Shipping Name: Not applicable.

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

Hazchem Code: Not applicable.

IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport

UN No.: Not applicable.

Proper Shipping Name: Not applicable.

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

International Maritime Dangerous Goods Code (IMDG) - Marine Transport

UN No.: Not applicable.

Proper Shipping Name: Not applicable.

Class/Division: Not applicable.

Sub Risk: Not applicable.

Packing Group: Not applicable.

Marine Pollutant: Not applicable.

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:	16-1920-4	Version number:	4.00
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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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