



## 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.

### IDENTIFICATION:

#### 1.1. Product identifier

3M™ Impregum™ Soft Refill (31785)

#### Product Identification Numbers

70-2011-3462-7

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

##### Recommended use

Dental Product, Impression Material

##### 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:**

25-5898-9, 25-5818-7

One or more components of this KIT is classified as a hazardous substance in accordance with the relevant criteria of the HSNO Act 1996 and the Hazardous Substances (Hazard Classification) Notice 2020.

### TRANSPORT INFORMATION

NOT HAZARDOUS FOR TRANSPORT

**Revision information:**

Complete document review.

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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

3M™ IMPREGUM™ SOFT CATALYST

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

##### Recommended use

Dental Product, Impression Material

##### 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 and the Hazardous Substances (Hazard Classification) Notice 2020.

Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

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

Skin Sensitizer: Category 1B.

Reproductive Toxicity: Category 2

Specific Target Organ Toxicity (repeated exposure): Category 1

Chronic Aquatic Toxicity: Category 3

#### 2.2. Label elements

##### SIGNAL WORD

Danger

**Symbols:**

Exclamation mark |Health Hazard |

**Pictograms****HAZARD STATEMENTS:**

H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure: blood or blood-forming organs.
H373	May cause damage to organs through prolonged or repeated exposure: respiratory system   sensory organs.
H412	Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS****Prevention**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280E	Wear protective gloves.

**Response**

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

**Storage**

P405	Store locked up.
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**Disposal**

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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**SECTION 3: Composition/information on ingredients**

Ingredient	CAS Nbr	% by Weight
Citric ester	77-90-7	35 - 45
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	68909-20-6	20 - 30
Sulphonium salt	72140-65-9	< 25

Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	1 - 20
Dibenzyltoluene	53585-53-8	< 0.1

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

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

#### Eye contact

No need for first aid is anticipated.

#### If swallowed

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

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

The most important symptoms and effects based on the CLP classification include:

### 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

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

Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. 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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Do not get in eyes. Use personal protective equipment (eg. gloves, respirators...) as required. A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove.

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

Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents.

### 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
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	New Zealand WES	TWA(8 hours):10 mg/m <sup>3</sup>	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

New Zealand WES : New Zealand Workplace Exposure Standards.

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

ppm: parts per million

mg/m<sup>3</sup>: milligrams per cubic metre

CEIL: Ceiling

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Use 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
Colour	White
Odour	Characteristic Odour
Odour threshold	<i>No data available.</i>
pH	<i>Not applicable.</i>
Melting point/Freezing point	<i>No data available.</i>
Boiling point/Initial boiling point/Boiling range	<i>Not applicable.</i>
Flash point	No flash point
Evaporation rate	<i>No data available.</i>
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	<i>Not applicable.</i>
Flammable Limits(UEL)	<i>Not applicable.</i>
Vapour pressure	<i>Not applicable.</i>
Vapor Density and/or Relative Vapor Density	<i>Not applicable.</i>
Density	1.2 g/cm <sup>3</sup> - 1.4 g/cm <sup>3</sup>
Relative density	1.2 - 1.4 [Ref Std: WATER=1]
Water solubility	Negligible
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Autoignition temperature	<i>Not applicable.</i>
Decomposition temperature	<i>No data available.</i>
Viscosity/Kinematic Viscosity	<i>No data available.</i>
Volatile organic compounds (VOC)	<i>No data available.</i>
Percent volatile	<i>No data available.</i>
VOC less H <sub>2</sub> O & exempt solvents	<i>No data available.</i>

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

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

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

#### 10.4 Conditions to avoid

Heat.

#### 10.5 Incompatible materials

Strong acids.

Strong bases.

Strong oxidising agents.

#### 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. May cause additional health effects (see below).

#### Additional Health Effects:

#### Prolonged or repeated exposure may cause target organ effects:

Ocular effects: Signs/symptoms may include blurred or significantly impaired vision. Bone marrow effects: Signs/symptoms may include generalised weakness, pallor of the skin, fatty infiltration of the bone marrow, decreases in the numbers of circulating blood cells, increased susceptibility to infection. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

#### Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.



**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	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
Citric ester	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Citric ester	Ingestion	Rat	LD50 > 25,000 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
Sulphonium salt	Dermal	Rat	LD50 > 2,000 mg/kg
Sulphonium salt	Ingestion	Rat	LD50 300-2,000 mg/kg
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.7 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Ingestion	Rat	LD50 > 2,000 mg/kg
Dibenzyltoluene	Dermal	Rat	LD50 > 2,000 mg/kg
Dibenzyltoluene	Ingestion	Rat	LD50 > 10,360 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Rabbit	No significant irritation
Sulphonium salt	Rabbit	Mild irritant
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In vitro data	No significant irritation
Dibenzyltoluene	Rabbit	Mild irritant

**Serious Eye Damage/Irritation**

Name	Species	Value
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Rabbit	No significant irritation
Sulphonium salt	Rabbit	Mild irritant
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Rabbit	Mild irritant
Dibenzyltoluene	Rabbit	No significant irritation

**Sensitisation:****Skin Sensitisation**

Name	Species	Value
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2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Human and animal	Not classified
Sulphonium salt	Mouse	Sensitising
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Mouse	Not classified
Dibenzyltoluene	Guinea pig	Not classified

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

Name	Route	Value
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	In Vitro	Not mutagenic
Sulphonium salt	In Vitro	Not mutagenic
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In Vitro	Some positive data exist, but the data are not sufficient for classification
Dibenzyltoluene	In Vitro	Not mutagenic
Dibenzyltoluene	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	Human and animal	Carcinogenic.

**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
Sulphonium salt	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	prematuring into lactation
Sulphonium salt	Ingestion	Toxic to female reproduction	Rat	NOAEL 30 mg/kg/day	prematuring into lactation
Sulphonium salt	Ingestion	Toxic to male reproduction	Rat	NOAEL 30 mg/kg/day	30 days
Dibenzyltoluene	Ingestion	Toxic to male reproduction	Rat	NOAEL 250 mg/kg/day	28 days
Dibenzyltoluene	Ingestion	Toxic to female reproduction	Rat	NOAEL 250 mg/kg/day	prematuring into lactation
Dibenzyltoluene	Ingestion	Toxic to development	Rabbit	LOAEL 10 mg/kg/day	during gestation

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Sulphonium salt	Ingestion	respiratory system	Not classified	Rat	NOAEL 300	

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					mg/kg	
Dibenzyltoluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	

**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
Sulphonium salt	Ingestion	bone marrow	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 10 mg/kg/day	30 days
Sulphonium salt	Ingestion	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 30 mg/kg/day	30 days
Sulphonium salt	Ingestion	eyes	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 100 mg/kg/day	30 days
Sulphonium salt	Ingestion	hematopoietic system   liver   immune system   kidney and/or bladder	Not classified	Rat	NOAEL 300 mg/kg/day	30 days
Sulphonium salt	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 30 mg/kg/day	30 days
Sulphonium salt	Ingestion	auditory system   heart   skin   endocrine system   bone, teeth, nails, and/or hair   muscles   nervous system   vascular system	Not classified	Rat	NOAEL 300 mg/kg/day	30 days
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Ingestion	hematopoietic system   eyes   kidney and/or bladder	Not classified	Rat	NOAEL 3,738 mg/kg/day	90 days
Dibenzyltoluene	Ingestion	liver   kidney and/or bladder   heart   skin   endocrine system   gastrointestinal tract   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles   nervous system   eyes   respiratory system   vascular system	Not classified	Rat	NOAEL 500 mg/kg/day	120 days

**Aspiration Hazard**

Name	Value
Dibenzyltoluene	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.

Acute Aquatic Toxicity: Category 2

Chronic Aquatic Toxicity: Category 3

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Citric ester	77-90-7	Bluegill	Experimental	96 hours	LC50	38 mg/l
Citric ester	77-90-7	Green algae	Experimental	72 hours	ErC50	74.4 mg/l
Citric ester	77-90-7	Water flea	Experimental	48 hours	EC50	7.82 mg/l
Citric ester	77-90-7	Green algae	Experimental	72 hours	NOEC	4.65 mg/l
Citric ester	77-90-7	Water flea	Experimental	21 days	NOEC	>=1.11 mg/l
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl) propyl ester, hydrolysis products with silica	68909-20-6	Algae or other aquatic plants	Estimated	72 hours	EC50	>100 mg/l
Sulphonium salt	72140-65-9	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Sulphonium salt	72140-65-9	Water flea	Analogous Compound	48 hours	No tox obs at lmt of water sol	>100 mg/l
Sulphonium salt	72140-65-9	Zebra Fish	Analogous Compound	96 hours	No tox obs at lmt of water sol	>100 mg/l
Sulphonium salt	72140-65-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Sulphonium salt	72140-65-9	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Rainbow trout	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Flux calcined diatomaceous earth	68855-54-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l

earth (cristobalite 1 - <10%)						
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Dibenzyltoluene	53585-53-8	Bacteria	Experimental	4.92 hours	EC10	>1,000 mg/l
Dibenzyltoluene	53585-53-8	Copepod	Experimental	48 hours	LC50	>0.0206 mg/l
Dibenzyltoluene	53585-53-8	Green algae	Experimental	96 hours	EC50	0.019 mg/l
Dibenzyltoluene	53585-53-8	Water flea	Experimental	48 hours	EC50	>0.029 mg/l
Dibenzyltoluene	53585-53-8	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Dibenzyltoluene	53585-53-8	Green algae	Experimental	96 hours	EC10	0.006 mg/l
Dibenzyltoluene	53585-53-8	Water flea	Experimental	21 days	NOEC	0.03 mg/l

## 12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Citric ester	77-90-7	Experimental Biodegradation	28 days	BOD	48 %BOD/ThOD	
Citric ester	77-90-7	Experimental Aquatic Inherent Biodegrad.		BOD	82 %BOD/ThOD	OECD 302C - Modified MITI (II)
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl) propyl ester, hydrolysis products with silica	68909-20-6	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Sulphonium salt	72140-65-9	Hydrolysis product Biodegradation	28 days	Percent degraded	52 % degraded	Catalogic™
Sulphonium salt	72140-65-9	Experimental Hydrolysis		Hydrolytic half-life	2.08 hours (t 1/2)	OECD 111 Hydrolysis func of pH
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Dibenzyltoluene	53585-53-8	Experimental Biodegradation	28 days	BOD	0.5 %BOD/ThOD	OECD 301D - Closed bottle test

## 12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Citric ester	77-90-7	Modeled Bioconcentration		Bioaccumulation factor	5.1	Catalogic™
Citric ester	77-90-7	Experimental Bioconcentration		Log Kow	4.92	
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl) propyl ester, hydrolysis products with silica	68909-20-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sulphonium salt	72140-65-9	Experimental Bioconcentration		Log Kow	≤0.75	830.7550 Part.Coeff Shake Flask
Sulphonium salt	72140-65-9	Hydrolysis product Bioconcentration		Log Kow	6.81	Episuite™
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Dibenzyltoluene	53585-53-8	Experimental BCF - Fish	56 days	Bioaccumulation factor	6300	OECD305-Bioconcentration

**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 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.

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 2020  
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 Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017 and the HSNO Act 1996, Hazardous Substances (Hazardous Property Controls) Notice 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 Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Germ cell mutagenicity Category 1, Reproductive toxicity Category 1, Specific target organ toxicity Category 1, Serious eye damage Category 1, Hazardous to the aquatic environment Category 4 substances)
Secondary containment	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Germ cell mutagenicity Category 1, Reproductive toxicity Category 1, Specific target organ toxicity Category 1, Serious eye damage Category 1, Hazardous to the aquatic environment Category 4 substances)
Tracking	Not required
Warning signage	100 L or 100 kg (for Hazardous to the aquatic environment Category 1

substances); or 1 000 L or 1 000 kg (for Serious eye damage Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Acute toxicity Category 4 or Hazardous to the aquatic environment Category 4 substances)

## SECTION 16: Other information

### Revision information:

Complete document review.

<b>Document group:</b>	25-5818-7	<b>Version number:</b>	4.00
<b>Issue Date:</b>	16/01/2023	<b>Supersedes date:</b>	26/11/2018

### Key to abbreviations and acronyms

**GHS** refers to the Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition of 2017

**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

3M™ Impregum™ Soft Base

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

##### Recommended use

Dental Product, Impression Material

##### 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 and the Hazardous Substances (Hazard Classification) Notice 2020.

Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

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

Serious Eye Damage/Irritation: Category 2

Skin Sensitizer: Category 1A.

Acute Aquatic Toxicity: Category 1

Chronic Aquatic Toxicity: Category 2

#### 2.2. Label elements

##### SIGNAL WORD

Warning

**Symbols:**

Exclamation mark |Environment |

**Pictograms****HAZARD STATEMENTS:**

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**

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280E	Wear protective gloves.

**Response**

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
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.
P337 + P313	IF eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

**Disposal**

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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**SECTION 3: Composition/information on ingredients**

Ingredient	CAS Nbr	% by Weight
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	110531-92-5	60 - 80
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	1 - 20
Polyglycol monobutylether	9038-95-3	5 - 10
Triglycerides, C14-18	67701-27-3	5 - 10
Magnesium oxide	1309-48-4	1 - 5
1-Dodecylimidazole	4303-67-7	< 1
Titanium dioxide	13463-67-7	< 0.5
Dibenzyltoluene	53585-53-8	< 0.1
Dimantine	124-28-7	< 0.05

**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.

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

The most important symptoms and effects based on the CLP classification include:

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

Not applicable

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

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

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

None inherent in this product.

#### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	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**

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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Do not get in eyes. A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove.

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

Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents.

**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.

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional comments</b>
Magnesium oxide	1309-48-4	ACGIH	TWA(inhalable fraction):10 mg/m <sup>3</sup>	A4: Not class. as human carcinogen
Magnesium oxide	1309-48-4	New Zealand WES	TWA(as fume)(8 hours):10 mg/m <sup>3</sup>	
Titanium dioxide	13463-67-7	ACGIH	TWA:10 mg/m <sup>3</sup>	A4: Not class. as human carcinogen
Titanium dioxide	13463-67-7	New Zealand WES	TWA(8 hours):10 mg/m <sup>3</sup>	
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	New Zealand WES	TWA(8 hours):10 mg/m <sup>3</sup>	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

New Zealand WES : New Zealand Workplace Exposure Standards.

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

ppm: parts per million

mg/m<sup>3</sup>: milligrams per cubic metre

CEIL: Ceiling

**8.2. Exposure controls****8.2.1. Engineering controls**

Use 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**

<b>Physical state</b>	Solid.
<b>Specific Physical Form:</b>	Paste
<b>Colour</b>	Lilac
<b>Odour</b>	Characteristic Odour
<b>Odour threshold</b>	<i>No data available.</i>
<b>pH</b>	<i>Not applicable.</i>
<b>Melting point/Freezing point</b>	<i>Not applicable.</i>
<b>Boiling point/Initial boiling point/Boiling range</b>	<i>Not applicable.</i>
<b>Flash point</b>	No flash point
<b>Evaporation rate</b>	<i>No data available.</i>
<b>Flammability (solid, gas)</b>	Not classified
<b>Flammable Limits(LEL)</b>	<i>Not applicable.</i>
<b>Flammable Limits(UEL)</b>	<i>Not applicable.</i>
<b>Vapour pressure</b>	<i>No data available.</i>
<b>Vapor Density and/or Relative Vapor Density</b>	<i>Not applicable.</i>
<b>Density</b>	1 g/cm <sup>3</sup> - 1.2 g/cm <sup>3</sup>
<b>Relative density</b>	1 - 1.2 [Ref Std: WATER=1]
<b>Water solubility</b>	Negligible
<b>Solubility- non-water</b>	<i>No data available.</i>
<b>Partition coefficient: n-octanol/water</b>	<i>No data available.</i>
<b>Autoignition temperature</b>	<i>Not applicable.</i>
<b>Decomposition temperature</b>	<i>No data available.</i>
<b>Viscosity/Kinematic Viscosity</b>	<i>No data available.</i>
<b>Volatile organic compounds (VOC)</b>	<i>No data available.</i>
<b>Percent volatile</b>	<i>No data available.</i>
<b>VOC less H<sub>2</sub>O &amp; exempt solvents</b>	<i>No data available.</i>

**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

Heat.

### 10.5 Incompatible materials

Strong acids.

Strong bases.

Strong oxidising agents.

### 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

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

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### Ingestion

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

#### 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 ATE >5,000 mg/kg
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	Dermal	Professional judgement	LD50 Not applicable
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	Ingestion	Rat	LD50 > 2,000 mg/kg
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.7 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Ingestion	Rat	LD50 > 2,000 mg/kg
Triglycerides, C14-18	Dermal	Rabbit	LD50 > 2,000 mg/kg
Triglycerides, C14-18	Ingestion	Rat	LD50 > 2,000 mg/kg
Polyglycol monobutylether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Polyglycol monobutylether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Polyglycol monobutylether	Ingestion	Rat	LD50 4,240 mg/kg
Magnesium oxide	Dermal	Professional judgement	LD50 estimated to be 2,000 - 5,000 mg/kg
Magnesium oxide	Ingestion	Rat	LD50 3,870 mg/kg
1-Dodecylimidazole	Ingestion	Rat	LD50 641 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
Dibenzyltoluene	Dermal	Rat	LD50 > 2,000 mg/kg
Dibenzyltoluene	Ingestion	Rat	LD50 > 10,360 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	Rabbit	No significant irritation
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In vitro data	No significant irritation
Polyglycol monobutylether	Rabbit	Minimal irritation
Magnesium oxide	Professional judgement	No significant irritation
1-Dodecylimidazole	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
Dibenzyltoluene	Rabbit	Mild irritant

**Serious Eye Damage/Irritation**

Name	Species	Value
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	Rabbit	Moderate irritant
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Rabbit	Mild irritant
Polyglycol monobutylether	Rabbit	No significant irritation
1-Dodecylimidazole	In vitro data	Severe irritant

Titanium dioxide	Rabbit	No significant irritation
Dibenzyltoluene	Rabbit	No significant irritation

**Sensitisation:****Skin Sensitisation**

Name	Species	Value
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	Guinea pig	Not classified
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Mouse	Not classified
1-Dodecylimidazole	Mouse	Sensitising
Titanium dioxide	Human and animal	Not classified
Dibenzyltoluene	Guinea pig	Not classified

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

Name	Route	Value
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	In Vitro	Not mutagenic
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In Vitro	Some positive data exist, but the data are not sufficient for classification
Magnesium oxide	In Vitro	Not mutagenic
1-Dodecylimidazole	In Vitro	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Dibenzyltoluene	In Vitro	Not mutagenic
Dibenzyltoluene	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	Human and animal	Carcinogenic.
Polyglycol monobutylether	Ingestion	Rat	Not carcinogenic
Magnesium oxide	Not specified.	Human and animal	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.

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

Name	Route	Value	Species	Test result	Exposure Duration
Polyglycol monobutylether	Inhalation	Not classified for male reproduction	Rat	NOAEL 1 mg/l	2 weeks
Dibenzyltoluene	Ingestion	Toxic to male reproduction	Rat	NOAEL 250 mg/kg/day	28 days
Dibenzyltoluene	Ingestion	Toxic to female reproduction	Rat	NOAEL 250 mg/kg/day	premating into lactation
Dibenzyltoluene	Ingestion	Toxic to development	Rabbit	LOAEL 10 mg/kg/day	during gestation



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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polyglycol monobutylether	Ingestion	nervous system	Not classified	Rat	NOAEL Not available	
Magnesium oxide	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	
Dibenzyltoluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Ingestion	hematopoietic system   eyes   kidney and/or bladder	Not classified	Rat	NOAEL 3,738 mg/kg/day	90 days
Polyglycol monobutylether	Inhalation	endocrine system   hematopoietic system   liver   nervous system	Not classified	Rat	NOAEL 1 mg/l	2 weeks
Polyglycol monobutylether	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.005 mg/l	2 weeks
Polyglycol monobutylether	Inhalation	respiratory system	Not classified	Rat	LOAEL 0.001 mg/l	2 weeks
Polyglycol monobutylether	Inhalation	heart	Not classified	Rat	NOAEL 0.5 mg/l	2 weeks
Polyglycol monobutylether	Ingestion	liver   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Polyglycol monobutylether	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 500 mg/kg/day	2 years
Polyglycol monobutylether	Ingestion	heart   endocrine system   respiratory system	Not classified	Rat	NOAEL 3,770 mg/kg/day	90 days
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
Dibenzyltoluene	Ingestion	liver   kidney and/or bladder   heart   skin   endocrine system   gastrointestinal tract   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles   nervous system   eyes   respiratory system   vascular system	Not classified	Rat	NOAEL 500 mg/kg/day	120 days

**Aspiration Hazard**

Name	Value
Dibenzyltoluene	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.**

Acute Aquatic Toxicity: Category 1

Chronic Aquatic Toxicity: Category 2

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	110531-92-5	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Rainbow trout	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Polyglycol monobutylether	9038-95-3	Inland Silverside	Analogous Compound	96 hours	LC50	650 mg/l
Polyglycol monobutylether	9038-95-3	Activated sludge	Experimental	16 hours	IC50	32,000 mg/l
Triglycerides, C14-18	67701-27-3	Green algae	Estimated	72 hours	EC50	>100 mg/l

Triglycerides, C14-18	67701-27-3	Water flea	Estimated	48 hours	EC50	>100 mg/l
Triglycerides, C14-18	67701-27-3	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Triglycerides, C14-18	67701-27-3	Green algae	Estimated	72 hours	NOEC	100 mg/l
Triglycerides, C14-18	67701-27-3	Water flea	Estimated	21 days	NOEC	100 mg/l
Magnesium oxide	1309-48-4	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
1-Dodecylimidazole	4303-67-7	Green algae	Experimental	72 hours	ErC50	0.00557 mg/l
1-Dodecylimidazole	4303-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
1-Dodecylimidazole	4303-67-7	Green algae	Experimental	72 hours	ErC10	0.0021 mg/l
Titanium dioxide	13463-67-7	Activated sludge	Experimental	3 hours	NOEC	>=1,000 mg/l
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
Dibenzyltoluene	53585-53-8	Bacteria	Experimental	4.92 hours	EC10	>1,000 mg/l
Dibenzyltoluene	53585-53-8	Copepod	Experimental	48 hours	LC50	>0.0206 mg/l
Dibenzyltoluene	53585-53-8	Green algae	Experimental	96 hours	EC50	0.019 mg/l
Dibenzyltoluene	53585-53-8	Water flea	Experimental	48 hours	EC50	>0.029 mg/l
Dibenzyltoluene	53585-53-8	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Dibenzyltoluene	53585-53-8	Green algae	Experimental	96 hours	EC10	0.006 mg/l
Dibenzyltoluene	53585-53-8	Water flea	Experimental	21 days	NOEC	0.03 mg/l
Dimantine	124-28-7	Water flea	Analogous Compound	48 hours	EC50	0.188 mg/l
Dimantine	124-28-7	Green algae	Experimental	72 hours	EC50	0.0141 mg/l
Dimantine	124-28-7	Rainbow trout	Experimental	96 hours	LC50	0.18 mg/l
Dimantine	124-28-7	Water flea	Analogous Compound	21 days	NOEC	0.1 mg/l
Dimantine	124-28-7	Green algae	Experimental	72 hours	EC10	0.00594 mg/l
Dimantine	124-28-7	Activated sludge	Analogous Compound	3 hours	EC50	38 mg/l

Dimantine	124-28-7	Rape	Analogous Compound	21 days	NOEC	10 mg/kg (Dry Weight)
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## 12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	110531-92-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Polyglycol monobutylether	9038-95-3	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Triglycerides, C14-18	67701-27-3	Estimated Biodegradation	28 days	BOD	79 %BOD/ThO D	OECD 301F - Manometric respirometry
Magnesium oxide	1309-48-4	Data not availbl-insufficient	N/A	N/A	N/A	N/A
1-Dodecylimidazole	4303-67-7	Experimental Biodegradation	28 days	CO2 evolution	2-3 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Titanium dioxide	13463-67-7	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Dibenzyltoluene	53585-53-8	Experimental Biodegradation	28 days	BOD	0.5 %BOD/Th OD	OECD 301D - Closed bottle test
Dimantine	124-28-7	Experimental Biodegradation	28 days	BOD	68 %BOD/ThO D	OECD 301D - Closed bottle test
Dimantine	124-28-7	Experimental Aquatic Inherent Biodegrad.	28 days	Percent degraded	56 %BOD/ThO D	OECD 302C - Modified MITI (II)
Dimantine	124-28-7	Analogous Compound Biodegradation	6 days	Percent degraded	> 99.6 % degraded	OECD 303A - Simulated Aerobic
Dimantine	124-28-7	Analogous Compound Biodegradation	62 days	Percent degraded	13.7 % degraded	OECD 307 Aero Anaer Trans soil

## 12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Furan, tetrahydro-, polymer with oxirane, bis[[3-	110531-92-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

(1-aziridiny)butyl carbamate]						
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyglycol monobutylether	9038-95-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Triglycerides, C14-18	67701-27-3	Estimated Bioconcentration		Bioaccumulation factor	7.4	
Magnesium oxide	1309-48-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1-Dodecylimidazole	4303-67-7	Modeled Bioconcentration		Bioaccumulation factor	3090	Catalogic™
Titanium dioxide	13463-67-7	Experimental BCF - Fish	42 days	Bioaccumulation factor	9.6	
Dibenzyltoluene	53585-53-8	Experimental BCF - Fish	56 days	Bioaccumulation factor	6300	OECD305-Bioconcentration
Dimantine	124-28-7	Modeled Bioconcentration		Bioaccumulation factor	7.4	Catalogic™
Dimantine	124-28-7	Estimated Bioconcentration		Log Kow	5.1	

**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 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.

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 2020  
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 Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017 and the HSNO Act 1996, Hazardous Substances (Hazardous Property Controls) Notice 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 Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Germ cell mutagenicity Category 1, Reproductive toxicity Category 1, Specific target organ toxicity Category 1, Serious eye damage Category 1, Hazardous to the aquatic environment Category 4 substances)
Secondary containment	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Germ cell mutagenicity Category 1, Reproductive toxicity Category 1, Specific target organ toxicity Category 1, Serious eye damage Category 1, Hazardous to the aquatic

Tracking	environment Category 4 substances)
Warning signage	Not required 100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Serious eye damage Category 1, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for Acute toxicity Category 4 or Hazardous to the aquatic environment Category 4 substances)

## SECTION 16: Other information

### Revision information:

Complete document review.

<b>Document group:</b>	25-5898-9	<b>Version number:</b>	4.00
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### Key to abbreviations and acronyms

**GHS** refers to the Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition of 2017

**HSNO** means Hazardous Substances and New Organisms Act 1996

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