



Safety Data Sheet

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Issue Date:	15/03/2021	Supersedes date:	04/04/2018

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™ F, Refill (31710)

Product Identification Numbers

70-2011-1595-6

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impression material.

Restrictions on use

For use by dental professionals.

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:

16-2598-7, 16-2599-5

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

TRANSPORT INFORMATION

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

UN No.: UN3077

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (DIBENZYL TOLUENE 1-DODECYLIMIDAZOLE)

Class/Division: 9

Packing Group: III

Marine Pollutant: Not applicable.

Hazchem Code: 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: Not restricted, as per IMDG code 2.10.2.7, marine pollutant exception.

Revision information:

Complete 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:	16-2599-5	Version number:	3.00
Issue Date:	13/07/2022	Supersedes date:	09/04/2018

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™ F Catalyst (31474)

Product Identification Numbers

70-2011-3763-8 UU-0098-0445-9

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impression material

Restrictions on use

For use only by dental professionals in approved indications.

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

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.

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.

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.

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
Citric Ester	77-90-7	20 - 40
Sulfonium Salt	72140-65-9	20 - 40
Silane Treated Silica	68909-20-6	10 - 30
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	1 - 20
Polyethylene-Polypropylene Glycol	9003-11-6	1 - 10

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 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 ³	
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles	68855-54-9	ACGIH	TWA(inhalable particulates):10 mg/m ³	
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles	68855-54-9	ACGIH	TWA(respirable particles):3 mg/m ³	

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
Colour	Dark Red
Odour	Slight Acrid
Odour threshold	<i>No data available.</i>
pH	<i>Not applicable.</i>
Melting point/Freezing point	<i>Not applicable.</i>
Boiling point/Initial boiling point/Boiling range	<i>Not applicable.</i>
Flash point	Flash point > 93 °C (200 °F)
Evaporation rate	<i>Not applicable.</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	1.1 g/ml - 1.4 g/ml
Relative density	> 1 [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>No data available.</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 ₂ 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

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	Rat	LD50 > 2,000 mg/kg
Sulfonium Salt	Dermal	Rat	LD50 > 2,000 mg/kg
Sulfonium Salt	Ingestion	Rat	LD50 300-2,000 mg/kg
Citric Ester	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Citric Ester	Ingestion	Rat	LD50 > 25,000 mg/kg
Silane Treated Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silane Treated Silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silane Treated Silica	Ingestion	Rat	LD50 > 5,110 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
Polyethylene-Polypropylene Glycol	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Polyethylene-Polypropylene Glycol	Ingestion	Rat	LD50 5,700 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Sulfonium Salt	Rabbit	Mild irritant
Silane Treated Silica	Rabbit	No significant irritation
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In vitro data	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Sulfonium Salt	Rabbit	Mild irritant
Silane Treated Silica	Rabbit	No significant irritation
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Rabbit	Mild irritant

Sensitisation:

Skin Sensitisation

Name	Species	Value
Sulfonium Salt	Mouse	Sensitising
Silane Treated Silica	Human and animal	Not classified
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Mouse	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
Sulfonium Salt	In Vitro	Not mutagenic
Silane Treated Silica	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

Carcinogenicity

Name	Route	Species	Value
Silane Treated 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
Sulfonium Salt	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	prematuring into lactation
Sulfonium Salt	Ingestion	Toxic to female reproduction	Rat	NOAEL 30 mg/kg/day	prematuring into lactation
Sulfonium Salt	Ingestion	Toxic to male reproduction	Rat	NOAEL 30 mg/kg/day	30 days
Silane Treated Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silane Treated Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silane Treated Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Sulfonium Salt	Ingestion	respiratory system	Not classified	Rat	NOAEL 300 mg/kg	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Sulfonium Salt	Ingestion	bone marrow	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 10 mg/kg/day	30 days
Sulfonium Salt	Ingestion	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 30 mg/kg/day	30 days
Sulfonium Salt	Ingestion	eyes	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 100 mg/kg/day	30 days
Sulfonium Salt	Ingestion	hematopoietic system liver immune system kidney and/or bladder	Not classified	Rat	NOAEL 300 mg/kg/day	30 days
Sulfonium Salt	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 30	30 days

Sulfonium Salt	Ingestion	auditory system heart skin endocrine system bone, teeth, nails, and/or hair muscles nervous system vascular system	Not classified	Rat	mg/kg/day NOAEL 300 mg/kg/day	30 days
Silane Treated Silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
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

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

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	EC50	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
Sulfonium Salt	72140-65-9	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Sulfonium Salt	72140-65-9	Water flea	Analogous Compound	48 hours	No tox obs at lmt of water sol	>100 mg/l
Sulfonium Salt	72140-65-9	Zebra Fish	Analogous Compound	96 hours	No tox obs at lmt of water sol	>100 mg/l
Sulfonium Salt	72140-65-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Sulfonium Salt	72140-65-9	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Silane Treated Silica	68909-20-6	Algae or other aquatic plants	Estimated	72 hours	EC50	>100 mg/l
Flux calcined	68855-54-9	Green algae	Experimental	72 hours	No tox obs at	>100 mg/l

diatomaceous earth (cristobalite 1 - <10%)					lmt of water sol	
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
Polyethylene-Polypropylene Glycol	9003-11-6		Data not available or insufficient for classification			N/A

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 % weight	Non-standard method
Sulfonium Salt	72140-65-9	Experimental Hydrolysis		Hydrolytic half-life	2.08 hours (t 1/2)	OECD 111 Hydrolysis func of pH
Sulfonium Salt	72140-65-9	Hydrolysis product Biodegradation	28 days	Percent degraded	52 % degraded	Catalogic™
Silane Treated Silica	68909-20-6	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
Polyethylene-Polypropylene Glycol	9003-11-6	Data not availbl-insufficient	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
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Citric Ester	77-90-7	Estimated Bioconcentration		Bioaccumulation factor	5.1	Estimated: Bioconcentration factor
Sulfonium Salt	72140-65-9	Experimental Bioconcentration		Log Kow	≤0.75	830.7550 Part.Coeff Shake Flask
Sulfonium Salt	72140-65-9	Hydrolysis product Bioconcentration		Log Kow	6.81	Episuite™
Silane Treated Silica	68909-20-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
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
Polyethylene-Polypropylene Glycol	9003-11-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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 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.

Document group:	16-2599-5	Version number:	3.00
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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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Safety Data Sheet

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Document group: 16-2598-7 **Version number:** 3.00
Issue Date: 24/02/2021 **Supersedes date:** 16/04/2018

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™ F Base (31503, 31504)

Product Identification Numbers

70-2011-3764-6

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, 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
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

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Reproductive Toxicity: Category 1B	6.8A Known/presumed human reproductive/developmental toxicant
Acute Aquatic Toxicity: Category 1	9.1A Aquatic toxicity (acute)
Chronic Aquatic Toxicity: Category 1	9.1A Aquatic toxicity (chronic)

2.2. Label elements**SIGNAL WORD**

DANGER!

Symbols:

Exclamation mark | Health Hazard | Environment |

Pictograms**HAZARD STATEMENTS:**

H320	Causes eye irritation.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H360	May damage fertility or the unborn child.
H410	Very toxic 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.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P308 + P313	IF exposed or concerned: Get medical advice/attention.

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

3M™ Impregum™ F Base (31503, 31504)

Ingredient	CAS Nbr	% by Weight
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	110531-92-5	50 - 70
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	10 - 30
Fatty acids triglycerides	67701-27-3	10 - 20
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	5 - 15
1-Dodecylimidazole	4303-67-7	< 1
D-Limonene	5989-27-5	< 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

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**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: 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

Do not handle until all safety precautions have been read and understood. 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
Cyclohexene, 1-methyl-4-(1-methylethenyl)-	5989-27-5	AIHA	TWA:165.5 mg/m ³ (30 ppm)	
Cristobalite	68855-54-9	ACGIH	TWA(respirable fraction):0.025 mg/m ³	A2: Suspected human carcin.
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	New Zealand WES	TWA(8 hours):10 mg/m ³	

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

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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

No protective gloves required. 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	Grey
Odour	Characteristic Odour
Odour threshold	<i>No data available.</i>
pH	<i>No data available.</i>
Melting point/Freezing point	<i>Not applicable.</i>
Boiling point/Initial boiling point/Boiling range	<i>Not applicable.</i>
Flash point	Flash point > 93 °C (200 °F)
Evaporation rate	<i>Not applicable.</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 g/cm ³ - 1.2 g/cm ³
Relative density	> 1 [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>No data available.</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 H2O & exempt solvents

No data available.

Nanoparticles

This material does not contain nanoparticles.

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>
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None known.	
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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.

3M™ Impregum™ F Base (31503, 31504)**Ingestion**

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:**Reproductive/Developmental Toxicity:**

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

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
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Dermal	Rat	LD50 > 2,000 mg/kg
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Ingestion	Rat	LD50 > 10,360 mg/kg
Fatty acids triglycerides	Dermal	Rabbit	LD50 > 2,000 mg/kg
Fatty acids triglycerides	Ingestion	Rat	LD50 > 2,000 mg/kg
1-Dodecylimidazole	Ingestion	Rat	LD50 641 mg/kg
D-Limonene	Inhalation-Vapor (4 hours)	Mouse	LC50 > 3.14 mg/l
D-Limonene	Dermal	Rabbit	LD50 > 5,000 mg/kg
D-Limonene	Ingestion	Rat	LD50 4,400 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
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Rabbit	Mild irritant
1-Dodecylimidazole	Rabbit	Mild irritant
D-Limonene	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
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Rabbit	No significant irritation
1-Dodecylimidazole	In vitro data	Severe irritant

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D-Limonene	Rabbit	Mild irritant
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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
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Guinea pig	Not classified
1-Dodecylimidazole	Mouse	Sensitising
D-Limonene	Mouse	Sensitising

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
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
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	In Vitro	Not mutagenic
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	In vivo	Not mutagenic
1-Dodecylimidazole	In Vitro	Not mutagenic
D-Limonene	In Vitro	Not mutagenic
D-Limonene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	Human and animal	Carcinogenic.
D-Limonene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification

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

Name	Route	Value	Species	Test result	Exposure Duration
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Ingestion	Toxic to male reproduction	Rat	NOAEL 250 mg/kg/day	28 days
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Ingestion	Toxic to female reproduction	Rat	NOAEL 250 mg/kg/day	prematuring into lactation
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Ingestion	Toxic to development	Rabbit	LOAEL 10 mg/kg/day	during gestation
D-Limonene	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	prematuring & during gestation
D-Limonene	Ingestion	Not classified for development	Multiple animal species	NOAEL 591 mg/kg/day	during organogenesis

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
D-Limonene	Ingestion	nervous system	Not classified		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
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	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
D-Limonene	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 75 mg/kg/day	103 weeks
D-Limonene	Ingestion	liver	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
D-Limonene	Ingestion	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system immune system muscles nervous system respiratory system	Not classified	Rat	NOAEL 600 mg/kg/day	103 weeks

Aspiration Hazard

Name	Value
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Aspiration hazard
D-Limonene	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 (HSNO 9.1A Aquatic toxicity)

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

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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		Data not available or insufficient for classification			N/A
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9		Data not available or insufficient for classification			N/A
Fatty acids triglycerides	67701-27-3	Green algae	Estimated	72 hours	EC50	>100 mg/l
Fatty acids triglycerides	67701-27-3	Water flea	Estimated	48 hours	EC50	>100 mg/l
Fatty acids triglycerides	67701-27-3	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Fatty acids triglycerides	67701-27-3	Green algae	Estimated	72 hours	NOEC	100 mg/l
Fatty acids triglycerides	67701-27-3	Water flea	Estimated	21 days	NOEC	100 mg/l
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Bacteria	Experimental	4.92 hours	EC10	>1,000 mg/l
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Copepods	Experimental	48 hours	LC50	>0.0206 mg/l
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Green algae	Experimental	96 hours	EC50	0.019 mg/l
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Water flea	Experimental	48 hours	EC50	>0.029 mg/l
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Green algae	Experimental	96 hours	EC10	0.006 mg/l
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Water flea	Experimental	21 days	NOEC	0.03 mg/l
1-	4303-67-7	Green Algae	Experimental	72 hours	EC50	0.00557 mg/l

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Dodecylimidazole						
1-Dodecylimidazole	4303-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
1-Dodecylimidazole	4303-67-7	Green algae	Experimental	72 hours	EC10	0.0021 mg/l
D-Limonene	5989-27-5	Fathead minnow	Experimental	96 hours	LC50	0.702 mg/l
D-Limonene	5989-27-5	Green Algae	Experimental	72 hours	EC50	0.32 mg/l
D-Limonene	5989-27-5	Water flea	Experimental	48 hours	EC50	0.307 mg/l
D-Limonene	5989-27-5	Green Algae	Experimental	72 hours	EC10	0.174 mg/l
D-Limonene	5989-27-5	Water flea	Experimental	21 days	NOEC	0.08 mg/l

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 available - insufficient			N/A	
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Data not available - insufficient			N/A	
Fatty acids triglycerides	67701-27-3	Estimated Biodegradation	28 days	BOD	79 % BOD/ThBOD	OECD 301F - Manometric respirometry
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Experimental Biodegradation	28 days	BOD	0.5 % BOD/ThBOD	OECD 301D - Closed bottle test
1-Dodecylimidazole	4303-67-7	Experimental Biodegradation	28 days	CO2 evolution	2-3 % weight	OECD 301B - Modified sturm or CO2
D-Limonene	5989-27-5	Experimental Biodegradation	14 days	BOD	98 % BOD/ThBOD	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

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 available or insufficient for classification	N/A	N/A	N/A	N/A
Flux calcined	68855-54-9	Data not	N/A	N/A	N/A	N/A

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diatomaceous earth (cristobalite 1 - <10%)		available or insufficient for classification				
Fatty acids triglycerides	67701-27-3	Estimated Bioconcentration		Bioaccumulation factor	7.4	Non-standard method
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Experimental BCF-Carp	56 days	Bioaccumulation factor	6300	OECD 305E - Bioaccumulation flow-through fish test
1-Dodecylimidazole	4303-67-7	Estimated Bioconcentration		Bioaccumulation factor	3090	Estimated: Bioconcentration factor
D-Limonene	5989-27-5	Estimated Bioconcentration		Bioaccumulation factor	2100	Estimated: Bioconcentration factor

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. 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.: UN3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. , (DIBENZYL TOLUENE, 1-DODECYLIMIDAZOLE)

Class/Division: 9

Sub Risk: Not applicable.

Packing Group: III

Special Instructions: Not restricted, environmentally hazardous substance exception.

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. , (DIBENZYL TOLUENE, 1-DODECYLIMIDAZOLE)

Class/Division: 9

3M™ Impregum™ F Base (31503, 31504)

Sub Risk: Not applicable.

Packing Group: III

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

International Maritime Dangerous Goods Code (IMDG) - Marine Transport

UN No.: UN3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. , (DIBENZYL TOLUENE, 1-DODECYLIMIDAZOLE)

Class/Division: 9

Sub Risk: Not applicable.

Packing Group: III

Marine Pollutant: Not applicable.

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

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.

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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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