Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

IDENTIFICATION:

1.1. Product identifier
3M™ Impregum Penta Super Quick Medium Body Refill

Product Identification Numbers
70-2011-4623-3

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 Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
Telephone:	136 136
E Mail:	productinfo.au@mmm.com
Website:	www.3m.com.au

1.4. Emergency telephone number
Company Emergency Hotline:EMERGENCY: 1800 097 146 (Australia only)

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:

37-9016-9, 37-9020-1

One or more components of this KIT is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

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., (1,2,3-Propanetricarboxylic acid, 2-(1-oxobutoxy)-, trihexyl ester; Dibenzyl toluene)
Class/Division: 9
Packing Group: III
Marine Pollutant: 1,2,3-Propanetricarboxylic acid, 2-(1-oxobutoxy)-, trihexyl ester; Dibenzyl toluene

Hazchem Code: 2Z
IERG: 47

Australian Dangerous Goods Code (ADG) - Road/Rail Transport
Special Instructions: Not restricted, environmentally hazardous substance exception.

International Air Transport Association (IATA)- Air Transport
Special Instructions: Not restricted, as per Special Provision A197, environmentally hazardous substance exception.

International Maritime Dangerous Goods Code (IMDG)- Marine Transport
Special Instructions: Forbidden due to internal policy

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.
Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au

Safety Data Sheet

Document group:	37-9020-1	**Version number:**	2.01
Issue Date:	12/08/2024	**Supersedes date:**	23/03/2022

This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

SECTION 1: Identification

1.1. Product identifier
3M™ Impregum™ Penta™ Super Quick MB Ctalyst

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 Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
Telephone:	136 136
E Mail:	productinfo.au@mmm.com
Website:	www.3m.com.au

1.4. Emergency telephone number
EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

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

2.1. Classification of the substance or mixture
Skin Corrosion/Irritation: Category 2.
Skin Sensitizer: Category 1A.

2.2. Label elements
The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product label.

Signal word
Warning

Symbols
Exclamation mark |

Pictograms

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements

Prevention:

P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280E	Wear protective gloves.

Response:

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.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other assigned/identified product hazards
The silicosis target organ toxicity classification is not applied because there is no potential for inhalation exposure.

2.4. Other hazards which do not result in classification
Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	2220260-54-6	20 - 40
Polyethylene-polypropylene glycol	9003-11-6	10 - 30
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	68909-20-6	10 - 30
Diatomaceous earth	68855-54-9	10 - 30
Plasticiser	82469-79-2	1 - 20
Poly(Tetramethylene Ether)	25190-06-1	< 5
Titanium dioxide	13463-67-7	< 1

2,6-Di-tert-butyl-p-cresol	128-37-0	< 0.5
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
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

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

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

Allergic skin reaction (redness, swelling, blistering, and itching).

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	Condition
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.

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

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.

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
2,6-Di-tert-butyl-p-cresol	128-37-0	ACGIH	TWA(inhalable fraction and vapour):2 mg/m3	A4: Not class. as human carcin
2,6-Di-tert-butyl-p-cresol	128-37-0	Australia OELs	TWA(8 hours):10 mg/m3	
Titanium dioxide	13463-67-7	ACGIH	TWA(Respirable nanoscale particles):0.2 mg/m3;TWA(Respirable finescale particles):2.5 mg/m3	A3: Confirmed animal carcinogen.
Titanium dioxide	13463-67-7	Australia OELs	TWA(Inspirable dust)(8 hours):10 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles	68855-54-9	ACGIH	TWA(inhalable particulates):10 mg/m3	
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles	68855-54-9	ACGIH	TWA(respirable particles):3 mg/m3	
Silicon dioxide	68855-54-9	Australia OELs	TWA(respirable fraction)(8 hours):2 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
Australia OELs : Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment
CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling
Sen: Sensitiser
Sk: Absorption through the skin may be a significant source of exposure.

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.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337.

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	*No data available.*
pH	*No data available.*
Melting point/Freezing point	*No data available.*
Boiling point/Initial boiling point/Boiling range	*Not applicable.*
Flash point	No flash point
Evaporation rate	*Not applicable.*
Flammability	Not applicable.
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	*Not applicable.*
Vapor Density and/or Relative Vapor Density	*Not applicable.*
Relative density	1.1 - 1.4 [*Ref Std:*WATER=1]
Water solubility	Negligible
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Kinematic Viscosity	*No data available.*
Volatile organic compounds (VOC)	*Not applicable.*
Percent volatile	*Not applicable.*
VOC less H2O & exempt solvents	*Not applicable.*

Particle Characteristics	*Not applicable.*

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. Conditions to avoid
Heat.

10.4. Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.5 Incompatible materials
Strong acids.
Strong bases.
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

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
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.
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.

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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	Ingestion	Rat	LD50 > 2,000 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	Rat	LD50 > 2,000 mg/kg
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
Polyethylene-polypropylene glycol	Dermal	similar compounds	LD50 > 2,000 mg/kg
Polyethylene-polypropylene glycol	Ingestion	similar compounds	LD50 > 5,000 mg/kg
Diatomaceous earth	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Diatomaceous earth	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.7 mg/l
Diatomaceous earth	Ingestion	Rat	LD50 > 2,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
2,6-Di-tert-butyl-p-cresol	Dermal	Rat	LD50 > 2,000 mg/kg
2,6-Di-tert-butyl-p-cresol	Ingestion	Rat	LD50 > 2,930 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
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	Professional judgement	Irritant
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Rabbit	No significant irritation
Polyethylene-polypropylene glycol	similar compounds	No significant irritation
Diatomaceous earth	In vitro data	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
2,6-Di-tert-butyl-p-cresol	Human and animal	Minimal irritation
Dibenzyltoluene	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	In vitro data	No significant irritation
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products	Rabbit	No significant irritation

with silica		
Polyethylene-polypropylene glycol	similar compounds	No significant irritation
Diatomaceous earth	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
2,6-Di-tert-butyl-p-cresol	Rabbit	Mild irritant
Dibenzyltoluene	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	In vitro data	Sensitising
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Guinea pig	Not classified
Polyethylene-polypropylene glycol	Guinea pig	Not classified
Diatomaceous earth	Mouse	Not classified
Titanium dioxide	Human and animal	Not classified
2,6-Di-tert-butyl-p-cresol	Human	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
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	In Vitro	Not mutagenic
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	In Vitro	Not mutagenic
Polyethylene-polypropylene glycol	In Vitro	Not mutagenic
Diatomaceous earth	In Vitro	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
2,6-Di-tert-butyl-p-cresol	In Vitro	Not mutagenic
2,6-Di-tert-butyl-p-cresol	In vivo	Not mutagenic
Dibenzyltoluene	In Vitro	Not mutagenic
Dibenzyltoluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Diatomaceous earth	Inhalation	Human and animal	Carcinogenic.
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
2,6-Di-tert-butyl-p-cresol	Ingestion	Multiple animal species	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
2-Propenoic acid, 2-	Ingestion	Not classified for	Rat	NOAEL 509	1 generation

methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica		female reproduction		mg/kg/day	
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
2,6-Di-tert-butyl-p-cresol	Ingestion	Not classified for female reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-p-cresol	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-p-cresol	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	2 generation
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
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	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 0.035 mg/l	13 weeks
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Inhalation	hematopoietic system | kidney and/or bladder	Not classified	Rat	NOAEL 0.035 mg/l	13 weeks
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	5 weeks

Diatomaceous earth	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Diatomaceous earth	Ingestion	hematopoietic system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 3,738 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
2,6-Di-tert-butyl-p-cresol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	28 days
2,6-Di-tert-butyl-p-cresol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	2 generation
2,6-Di-tert-butyl-p-cresol	Ingestion	blood	Not classified	Rat	LOAEL 420 mg/kg/day	40 days
2,6-Di-tert-butyl-p-cresol	Ingestion	endocrine system	Not classified	Rat	NOAEL 25 mg/kg/day	2 generation
2,6-Di-tert-butyl-p-cresol	Ingestion	heart	Not classified	Mouse	NOAEL 3,480 mg/kg/day	10 weeks
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

Exposure Levels
Refer Section **8.1 Control Parameters** of this Safety Data Sheet.

Interactive Effects
Not Determined

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

Acute aquatic hazard:
GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:
GHS Chronic 2: Toxic to aquatic life with long lasting effects.

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	2220260-54-6	Green algae	Estimated	72 hours	EC50	1.3 mg/l
Diatomaceous earth	68855-54-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Diatomaceous earth	68855-54-9	Rainbow trout	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Diatomaceous earth	68855-54-9	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Diatomaceous earth	68855-54-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Diatomaceous earth	68855-54-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Polyethylene-polypropylene glycol	9003-11-6	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
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
Plasticiser	82469-79-2	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Plasticiser	82469-79-2	Rainbow trout	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Plasticiser	82469-79-2	Water flea	Experimental	48 hours	EC50	0.38 mg/l
Plasticiser	82469-79-2	Fathead minnow	Experimental	28 days	NOEC	0.252 mg/l
Plasticiser	82469-79-2	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	100 mg/l
Plasticiser	82469-79-2	Water flea	Experimental	21 days	NOEC	0.074 mg/l
Plasticiser	82469-79-2	Activated sludge	Experimental	3 hours	IC50	>10 mg/l
Plasticiser	82469-79-2	Redworm	Experimental	14 days	LC50	1,000 mg/kg (Dry Weight)
Plasticiser	82469-79-2	Mild Apple	Experimental	14 days	LC50	>1,000 mg/kg (Dry Weight)
Poly(Tetramethylene Ether)	25190-06-1	Zebra Fish	Experimental	96 hours	LC50	5.9 mg/l
Poly(Tetramethylene Ether)	25190-06-1	Activated sludge	Experimental	30 minutes	EC20	450 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
2,6-Di-tert-butyl-p-	128-37-0	Activated sludge	Experimental	3 hours	EC50	>10,000 mg/l

cresol						
2,6-Di-tert-butyl-p-cresol	128-37-0	Green algae	Experimental	72 hours	EC50	>0.4 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Water flea	Experimental	48 hours	EC50	0.48 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Green algae	Experimental	72 hours	EC10	0.4 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Medaka	Experimental	42 days	NOEC	0.053 mg/l
2,6-Di-tert-butyl-p-cresol	128-37-0	Water flea	Experimental	21 days	NOEC	0.023 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
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	2220260-54-6	Experimental Biodegradation	28 days	BOD	60 %BOD/ThOD (< 10 day window)	OECD 301F - Manometric respirometry
Sulfonium, [2-carboxy-1-(carboxymethyl)ethyl]dodecylethyl-, mixed Me and pentyl diesters, tetrafluoroborates	2220260-54-6	Experimental Hydrolysis		Hydrolytic half-life	8 minutes (t 1/2)	
Diatomaceous earth	68855-54-9	Data not available-insufficient	N/A	N/A	N/A	N/A
Polyethylene-polypropylene glycol	9003-11-6	Data not available-insufficient	N/A	N/A	N/A	N/A
2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica	68909-20-6	Data not available-insufficient	N/A	N/A	N/A	N/A
Plasticiser	82469-79-2	Experimental Biodegradation	28 days	CO2 evolution	4 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Poly(Tetramethylene Ether)	25190-06-1	Experimental Biodegradation	28 days	BOD	33 %BOD/ThOD	OECD 301F - Manometric respirometry
Titanium dioxide	13463-67-7	Data not available-insufficient	N/A	N/A	N/A	N/A
2,6-Di-tert-butyl-p-cresol	128-37-0	Data not available-insufficient	N/A	N/A	N/A	N/A
Dibenzyltoluene	53585-53-8	Experimental	28 days	BOD	0.5 %BOD/ThOD	OECD 301D - Closed bottle

		Biodegradation				test

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Diatomaceous earth	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
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
Plasticiser	82469-79-2	Hydrolysis Product Bioconcentration		Bioaccumulation factor	300	Catalogic™
Plasticiser	82469-79-2	Experimental Bioconcentration		Log Kow	>4	EC A.8 Partition Coefficient
Poly(Tetramethylene Ether)	25190-06-1	Modeled Bioconcentration		Bioaccumulation factor	6.1	Catalogic™
Poly(Tetramethylene Ether)	25190-06-1	Modeled Bioconcentration		Log Kow	5.5	Episuite™
Titanium dioxide	13463-67-7	Experimental BCF - Fish	42 days	Bioaccumulation factor	9.6	
2,6-Di-tert-butyl-p-cresol	128-37-0	Experimental BCF - Fish	56 days	Bioaccumulation factor	1277	OECD305-Bioconcentration
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
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport
UN No.: UN3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. , (BHT, Plasticizer)
Class/Division: 9
Sub Risk: Not applicable.
Packing Group: III
Special Instructions: Not restricted, environmentally hazardous substance exception.
Hazchem Code: Not applicable
IERG: 47

International Air Transport Association (IATA) - Air Transport
UN No.: UN3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. , (BHT, Plasticizer)
Class/Division: 9
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. , (BHT, Plasticizer)
Class/Division: 9
Sub Risk: Not applicable.
Packing Group: III
Marine Pollutant: BHT, Plasticizer
Special Instructions: Not restricted, as per IMDG code 2.10.2.7, marine pollutant exception.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Australian Inventory Status:
This product is regulated by the Therapeutics Goods Administration and is exempt from compliance with the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

SECTION 16: Other information

Revision information:
Complete document review.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.
Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au

Safety Data Sheet

Document group:	37-9016-9	**Version number:**	2.00
Issue Date:	05/12/2021	**Supersedes date:**	10/12/2018

This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

SECTION 1: Identification

1.1. Product identifier
3M™ Impregum™ Penta™ Super Quick MB Base

1.2. Recommended use and restrictions on use

Recommended use
Dental Product, Impression Material

Restrictions on use
For use only by dental profesionals in approved indications.

1.3. Supplier's details

Address:	3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
Telephone:	136 136
E Mail:	productinfo.au@mmm.com
Website:	www.3m.com.au

1.4. Emergency telephone number
EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

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

2.1. Classification of the substance or mixture
Serious Eye Damage/Irritation: Category 2.
Skin Sensitizer: Category 1A.
Reproductive Toxicity: Category 1.

2.2. Label elements
The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product label.

Signal word
Danger

Symbols
Exclamation mark |Health Hazard |

Pictograms

Hazard statements

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H360	May damage fertility or the unborn child.

Precautionary statements

Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash thoroughly after handling.
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.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
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.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other assigned/identified product hazards
None known.

2.4. Other hazards which do not result in classification
Causes mild skin irritation.
Very toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight

Polyether	110531-92-5	40 - 60
Glycerides, C14-18	67701-27-3	1 - 20
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	1 - 20
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	10 - 15
N-Ethyl-P-Toluenesulfonamide	80-39-7	1 - 10
Lanthanum Trioxide	1312-81-8	1 - 5
Polyethylene-Polypropylene Glycol	9003-11-6	< 2
1-Dodecylimidazole	4303-67-7	< 1
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	< 0.5
Titanium dioxide	13463-67-7	< 0.5
(S)-(-)-P-Mentha-1,8-Diene	5989-54-8	< 0.3
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	14073-97-3	< 0.3

SECTION 4: First aid measures

4.1. Description of first aid measures

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

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

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

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

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

Allergic skin reaction (redness, swelling, blistering, and itching).

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	Condition
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.

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

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.

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
Titanium dioxide	13463-67-7	ACGIH	TWA:10 mg/m³	A4: Not class. as human carcin
Titanium dioxide	13463-67-7	Australia OELs	TWA(Inspirable dust)(8 hours):10 mg/m3	
CAS NO SEQ117921	68855-54-9	ACGIH	TWA(inhalable particulates):10 mg/m3	
CAS NO SEQ117922	68855-54-9	ACGIH	TWA(respirable particles):3 mg/m3	
Silicon dioxide	68855-54-9	Australia OELs	TWA(respirable fraction)(8 hours):2 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
Australia OELs : Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment

CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling
Sen: Sensitiser
Sk: Absorption through the skin may be a significant source of exposure.

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.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337.

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	Blue
Odour	Minty
Odour threshold	*No data available.*
pH	*Not applicable.*
Melting point/Freezing point	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	*Not applicable.*
Flash point	Flash point > 93 °C (200 °F)
Evaporation rate	*Not applicable.*
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	*No data available.*
Vapor Density and/or Relative Vapor Density	*No data available.*
Density	1 g/cm3 - 1.2 g/cm3
Relative density	> 1 [*Ref Std:*WATER=1]
Water solubility	Negligible
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*

Viscosity/Kinematic Viscosity	*No data available.*
Volatile organic compounds (VOC)	*No data available.*
Percent volatile	*No data available.*
VOC less H2O & exempt solvents	*No data available.*
Molecular weight	*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. Conditions to avoid
Heat.

10.4. Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.5 Incompatible materials
Strong acids.
Strong bases.
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	**Condition**
None known.	

SECTION 11: Toxicological information

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

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

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

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

Eye contact

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

Ingestion
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.

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
Polyether	Dermal	Professional judgement	LD50 Not applicable
Polyether	Ingestion	Rat	LD50 > 2,000 mg/kg
Glycerides, C14-18	Dermal	Rabbit	LD50 > 2,000 mg/kg
Glycerides, C14-18	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
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
N-Ethyl-P-Toluenesulfonamide	Dermal	Rabbit	LD50 > 5,000 mg/kg
N-Ethyl-P-Toluenesulfonamide	Ingestion	similar compounds	LD50 estimated to be 300 - 2,000 mg/kg
Lanthanum Trioxide	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Lanthanum Trioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
Lanthanum Trioxide	Ingestion	Rat	LD50 > 10,000 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
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
(S)-(-)-P-Mentha-1,8-Diene	Inhalation-Vapour (4 hours)	Mouse	LC50 > 3.14 mg/l
Cyclohexanone, 5-methyl-2-(1-	Ingestion	Multiple animal	LD50 > 2,000 mg/kg

methylethyl)-, (2S-trans)-		species	
(S)-(-)-P-Mentha-1,8-Diene	Dermal	Rabbit	LD50 > 5,000 mg/kg
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	Dermal	Rabbit	LD50 > 5,000 mg/kg
(S)-(-)-P-Mentha-1,8-Diene	Ingestion	Rat	LD50 4,400 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Polyether	Rabbit	No significant irritation
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Rabbit	Mild irritant
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In vitro data	No significant irritation
Lanthanum Trioxide	Rabbit	No significant irritation
1-Dodecylimidazole	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
(S)-(-)-P-Mentha-1,8-Diene	Rabbit	Mild irritant
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	In vitro data	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Polyether	Rabbit	Moderate irritant
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Rabbit	No significant irritation
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Rabbit	Mild irritant
Lanthanum Trioxide	Rabbit	Mild irritant
1-Dodecylimidazole	In vitro data	Severe irritant
Titanium dioxide	Rabbit	No significant irritation
(S)-(-)-P-Mentha-1,8-Diene	Rabbit	Mild irritant
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	In vitro data	No significant irritation

Skin Sensitisation

Name	Species	Value
Polyether	Guinea pig	Not classified
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Guinea pig	Not classified
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Mouse	Not classified
Lanthanum Trioxide	Guinea pig	Not classified
1-Dodecylimidazole	Mouse	Sensitising
Titanium dioxide	Human and animal	Not classified
(S)-(-)-P-Mentha-1,8-Diene	Mouse	Sensitising
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	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
Polyether	In Vitro	Not mutagenic
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	In Vitro	Not mutagenic

Benzene, bis(phenylmethyl)-, ar-methyl deriv.	In vivo	Not mutagenic
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In Vitro	Some positive data exist, but the data are not sufficient for classification
1-Dodecylimidazole	In Vitro	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
(S)-(-)-P-Mentha-1,8-Diene	In Vitro	Not mutagenic
(S)-(-)-P-Mentha-1,8-Diene	In vivo	Not mutagenic
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	In Vitro	Not mutagenic
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	Human and animal	Carcinogenic.
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
(S)-(-)-P-Mentha-1,8-Diene	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	premating into lactation
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Ingestion	Toxic to development	Rabbit	LOAEL 10 mg/kg/day	during gestation
(S)-(-)-P-Mentha-1,8-Diene	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	premating & during gestation
(S)-(-)-P-Mentha-1,8-Diene	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
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	
(S)-(-)-P-Mentha-1,8-Diene	Ingestion	nervous system	Not classified		NOAEL Not available	
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	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
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
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
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
(S)-(-)-P-Mentha-1,8-Diene	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 75 mg/kg/day	103 weeks
(S)-(-)-P-Mentha-1,8-Diene	Ingestion	liver	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
(S)-(-)-P-Mentha-1,8-Diene	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
(S)-(-)-P-Mentha-1,8-Diene	Aspiration hazard

Exposure Levels
Refer Section **8.1 Control Parameters** of this Safety Data Sheet.

Interactive Effects
Not determined.

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

Acute aquatic hazard:
GHS Acute 1: Very toxic to aquatic life.

Chronic aquatic hazard:
GHS Chronic 1: Very toxic to aquatic life with long lasting effects.

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Polyether	110531-92-5		Data not available or insufficient for classification			N/A
Glycerides, C14-18	67701-27-3	Green algae	Estimated	72 hours	EC50	>100 mg/l
Glycerides, C14-18	67701-27-3	Water flea	Estimated	48 hours	EC50	>100 mg/l
Glycerides, C14-18	67701-27-3	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Glycerides, C14-18	67701-27-3	Green algae	Estimated	72 hours	NOEC	100 mg/l
Glycerides, C14-18	67701-27-3	Water flea	Estimated	21 days	NOEC	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 (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
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
N-Ethyl-P-Toluenesulfonamide	80-39-7	Green Algae	Analogous Compound	72 hours	ErC50	78 mg/l
N-Ethyl-P-Toluenesulfonamide	80-39-7	Rainbow trout	Analogous Compound	96 hours	LC50	80 mg/l
N-Ethyl-P-Toluenesulfonamide	80-39-7	Water flea	Analogous Compound	48 hours	EC50	>1,000 mg/l
N-Ethyl-P-Toluenesulfonamide	80-39-7	Green Algae	Analogous Compound	72 hours	ErC10	13 mg/l
Lanthanum Trioxide	1312-81-8	Water flea	Experimental	48 hours	EC50	>100 mg/l
Lanthanum Trioxide	1312-81-8	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Lanthanum	1312-81-8	Water flea	Experimental	21 days	NOEC	100 mg/l

Trioxide						
Polyethylene-Polypropylene Glycol	9003-11-6		Data not available or insufficient for classification			N/A
1-Dodecylimidazole	4303-67-7	Green Algae	Experimental	72 hours	EC50	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	EC10	0.0021 mg/l
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	Green Algae	Experimental	72 hours	EC50	19 mg/l
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	Rainbow trout	Experimental	96 hours	LC50	6.1 mg/l
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	Water flea	Experimental	48 hours	EC50	38 mg/l
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	Green Algae	Experimental	72 hours	NOEC	4.3 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
(S)-(-)-P-Mentha-1,8-Diene	5989-54-8		Data not available or insufficient for classification			N/A
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	14073-97-3	Green Algae	Experimental	72 hours	EC50	58 mg/l
Cyclohexanone, 5-methyl-2-	14073-97-3	Water flea	Experimental	48 hours	EC50	30.6 mg/l

(1-methylethyl)-, (2S-trans)-						
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	14073-97-3	Zebra Fish	Experimental	96 hours	LC50	15.6 mg/l
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	14073-97-3	Green Algae	Experimental	72 hours	NOEC	10 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Polyether	110531-92-5	Data not available-insufficient			N/A	
Glycerides, C14-18	67701-27-3	Estimated Biodegradation	28 days	BOD	79 % BOD/ThBOD	OECD 301F - Manometric respirometry
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Data not available-insufficient			N/A	
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Experimental Biodegradation	28 days	BOD	0.5 % BOD/ThBOD	OECD 301D - Closed bottle test
N-Ethyl-P-Toluenesulfonamide	80-39-7	Analogous Compound Aquatic Inherent Biodegrad.	35 days	CO2 evolution	3 %CO2 evolution/THCO2 evolution	
N-Ethyl-P-Toluenesulfonamide	80-39-7	Modeled Biodegradation	28 days	BOD	25 % BOD/ThBOD	Catalogic™
N-Ethyl-P-Toluenesulfonamide	80-39-7	Analogous Compound Biodegradation	28 days	Dissolv. Organic Carbon Deplet	50.6 %removal of DOC	similar to 835.3240
Lanthanum Trioxide	1312-81-8	Data not available-insufficient			N/A	
Polyethylene-Polypropylene Glycol	9003-11-6	Data not available-insufficient			N/A	
1-Dodecylimidazole	4303-67-7	Experimental Biodegradation	28 days	CO2 evolution	2-3 % weight	OECD 301B - Modified sturm or CO2
2-Cyclohexen-1-one, 2-methyl-5-(1-	6485-40-1	Estimated Photolysis		Photolytic half-life (in air)	2.7 hours (t 1/2)	Non-standard method

methylethenyl)-, (R)-						
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	Experimental Biodegradation	28 days	BOD	90 % BOD/ThBOD	OECD 301F - Manometric respirometry
Titanium dioxide	13463-67-7	Data not available-insufficient			N/A	
(S)-(-)-P-Mentha-1,8-Diene	5989-54-8	Data not available-insufficient			N/A	
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	14073-97-3	Analogous Compound Biodegradation	28 days	BOD	63 % BOD/ThBOD	EC C.4.E Closed Bottle Test

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Polyether	110531-92-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Glycerides, C14-18	67701-27-3	Estimated Bioconcentration		Bioaccumulation factor	7.4	Non-standard method
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
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Experimental BCF-Carp	56 days	Bioaccumulation factor	6300	OECD 305E - Bioaccumulation flow-through fish test
N-Ethyl-P-Toluenesulfonamide	80-39-7	Analogous Compound Bioconcentration		Log Kow	1.8	
Lanthanum Trioxide	1312-81-8	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
1-Dodecylimidazole	4303-67-7	Estimated Bioconcentration		Bioaccumulation factor	3090	Estimated: Bioconcentration factor
2-Cyclohexen-1-one, 2-	6485-40-1	Experimental Bioconcentrati		Log Kow	2.74	Non-standard method

methyl-5-(1-methylethenyl)-, (R)-		on				
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation factor	9.6	Non-standard method
(S)-(-)-P-Mentha-1,8-Diene	5989-54-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	14073-97-3	Experimental Bioconcentration		Log Kow	3.05	

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport
UN No.: UN3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. , (Dibenzyl Toluene)
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)
Class/Division: 9
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)
Class/Division: 9
Sub Risk: Not applicable.

Packing Group: III
Marine Pollutant: Dibenzyl Toluene
Special Instructions: Forbidden due to internal policy

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Australian Inventory Status:
This product is regulated by the Therapeutics Goods Administration and is exempt from compliance with the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

SECTION 16: Other information

Revision information:
Complete document review.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.
Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au