

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

Product Name: Impregum Penta Impregum Penta Medium Body Impregum Penta L DuoSoft Impregum Soft LB (31644, 31745)

Manufacturer: 3M

SDS Expiry: 11 April 2027

Supplier Details: Henry Schein New Zealand
243-249 Bush Road, Rosedale, Auckland, 0632
PO Box 101 140, North Shore, Auckland 0745
Ph. 0800 808 855
www.henryschein.co.nz

Emergency Contacts: Poisons/Hazardous Chemical Info Centre –
0800POISON/0800764766 (24 Hours)
Phone 111 for Fire, Ambulance or Police

HSNO Class/Category: 6 / 9

HSNO Group Standard: Dental Products Subsidiary Hazard Group Standard 2020
HSR002558

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

Date Prepared: This coversheet was prepared – August 2023

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



Safety Data Sheet

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Document group:	16-5643-8	Version number:	7.00
Issue Date:	11/04/2022	Supersedes date:	05/04/2020

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™/ Impregum™ Penta™ Medium Body / Impregum™ Penta™ L DuoSoft/ Impregum™ Soft LB (31644, 31745)

Product Identification Numbers

70-2011-2485-9 70-2011-2486-7

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Dental Impression Material

Restrictions on use

For use by dental professionals only.

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:

16-5547-1, 16-5550-5

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., (Dibenzyltoluene; 1-Dodecylimidazole)

Class/Division: 9

Packing Group: III

Marine Pollutant:Not applicable.

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

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

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Document group:	16-5550-5	Version number:	6.00
Issue Date:	11/04/2022	Supersedes date:	29/03/2020

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™ / Impregum™ Penta™ Medium Body / Impregum™ Penta™ L DuoSoft/ Impregum™ Penta™ Soft LB Catalyst

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impression material

Restrictions on use

For use by dental professionals only.

1.3. Supplier's details

Address: 3M 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 Sensitizer: Category 1B.
Reproductive Toxicity: Category 2.
Specific Target Organ Toxicity (repeated exposure): 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

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.
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Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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2.3. Other assigned/identified product hazards

None known.

2.4. Other hazards which do not result in classification

May be harmful if swallowed.
Causes mild skin irritation.
Toxic to aquatic life.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Citric Ester	77-90-7	35 - 50
Silane Treated Silica	68909-20-6	20 - 30
Sulfonium Salt	72140-65-9	15 - 30
Polyethylene-Polypropylene Glycol	9003-11-6	1 - 5

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

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

Skin contact

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

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

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

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

5.3. Special protective actions for fire-fighters

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

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 breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Do not get in eyes. Use personal protective equipment (eg. gloves, respirators...) as required. A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove.

7.2. Conditions for safe storage including any incompatibilities

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

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	<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>No data available.</i>
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	<i>Not applicable.</i>
Flammable Limits(UEL)	<i>Not applicable.</i>
Vapour pressure	<i>No data available.</i>
Vapor Density and/or Relative Vapor Density	<i>No data available.</i>
Density	1.1 g/cm3 - 1.4 g/cm3
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>Not applicable.</i>
Decomposition temperature	<i>No data available.</i>
Viscosity/Kinematic Viscosity	<i>No data available.</i>
Volatile organic compounds (VOC)	<i>Not applicable.</i>
Percent volatile	<i>Not applicable.</i>
VOC less H2O & exempt solvents	<i>Not applicable.</i>
Molecular weight	<i>No data available.</i>

Nanoparticles

This material contains 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

None known.

Condition

SECTION 11: Toxicological information

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

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation

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

Skin contact

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

Eye contact

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

Ingestion

May be harmful if swallowed.

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

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

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

Reproductive/Developmental Toxicity:

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

Carcinogenicity:

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

Contains a chemical or chemicals which can cause cancer.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >2,000 - ≤5,000 mg/kg
Citric Ester	Dermal	Professional	LD50 estimated to be > 5,000 mg/kg

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		judgement	
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
Sulfonium Salt	Dermal	Rat	LD50 > 2,000 mg/kg
Sulfonium Salt	Ingestion	Rat	LD50 300-2,000 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
Silane Treated Silica	Rabbit	No significant irritation
Sulfonium Salt	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Silane Treated Silica	Rabbit	No significant irritation
Sulfonium Salt	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Silane Treated Silica	Human and animal	Not classified
Sulfonium Salt	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
Silane Treated Silica	In Vitro	Not mutagenic
Sulfonium Salt	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Silane Treated Silica	Not specified.	Mouse	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
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
Sulfonium Salt	Ingestion	Not classified for	Rat	NOAEL 100	prematuring into

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		development		mg/kg/day	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

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
Silane Treated Silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
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 mg/kg/day	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	NOAEL 300 mg/kg/day	30 days

Aspiration Hazard

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

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:

Not chronically toxic to aquatic life by GHS criteria.

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
Silane Treated Silica	68909-20-6	Algae	Estimated	72 hours	EC50	>100 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
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
Silane Treated Silica	68909-20-6	Data not available-insufficient	N/A	N/A	N/A	N/A
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™

3M™ Impregum™ Penta™ / Impregum™ Penta™ Medium Body / Impregum™ Penta™ L DuoSoft/ Impregum™ Penta™ Soft LB Catalyst

Polyethylene-Polypropylene Glycol	9003-11-6	Data not available-insufficient	N/A	N/A	N/A	N/A
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12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Citric Ester	77-90-7	Estimated Bioconcentration		Bioaccumulation factor	5.1	Estimated: Bioconcentration factor
Silane Treated Silica	68909-20-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
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™
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

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - 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

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.

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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

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Issue Date:	11/04/2022	Supersedes date:	06/04/2020

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™ / Impregum™ Penta™ Medium Body / Impregum™ Penta™ L DuoSoft/ Impregum™ Penta™ Soft LB Base

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impression material

Restrictions on use

For use by dental professionals only.

1.3. Supplier's details

Address: 3M 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
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	110531-92-5	50 - 70
Fatty Acid Triglycerides	67701-27-3	1 - 20
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	1 - 20
Oxirane, Polymer with Tetrahydrofuran, Diacetate	91825-26-2	1 - 20
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	5 - 15
1-Dodecylimidazole	4303-67-7	< 1
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	< 0.3
(S)-(-)-P-Mentha-1,8-Diene	5989-54-8	< 0.2
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	14073-97-3	<= 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

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.

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 breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Do not get in eyes. Use personal protective equipment (eg. gloves, respirators...) as required. A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove.

7.2. Conditions for safe storage including any incompatibilities

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

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
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	Purple
Odour	Characteristic Odour
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>No data available.</i>
Vapor Density and/or Relative Vapor Density	<i>No data available.</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	40 mPa-s - 150 mPa-s
Volatile organic compounds (VOC)	<i>No data available.</i>
Percent volatile	<i>No data available.</i>

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

<u>Substance</u>	<u>Condition</u>
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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
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
Fatty Acid Triglycerides	Dermal	Rabbit	LD50 > 2,000 mg/kg
Fatty Acid Triglycerides	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
Oxirane, Polymer with Tetrahydrofuran, Diacetate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Oxirane, Polymer with Tetrahydrofuran, Diacetate	Ingestion	Rat	LD50 > 2,000 mg/kg
1-Dodecylimidazole	Ingestion	Rat	LD50 641 mg/kg
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	Dermal	Rat	LD50 > 2,000 mg/kg
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	Ingestion	Rat	LD50 4,900 mg/kg
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	Inhalation-Dust/Mist (4 hours)	similar compounds	LC50 > 5.66 mg/l
(S)-(-)-P-Mentha-1,8-Diene	Inhalation-Vapour (4 hours)	Mouse	LC50 > 3.14 mg/l
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	Ingestion	Multiple animal species	LD50 > 2,000 mg/kg
(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

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(S)-(-)-P-Mentha-1,8-Diene	Ingestion	Rat	LD50 4,400 mg/kg
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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 (crystalite 1 - <10%)	In vitro data	No significant irritation
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Rabbit	Mild irritant
1-Dodecylimidazole	Rabbit	Mild irritant
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	Human and animal	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
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	Rabbit	Moderate irritant
Flux calcined diatomaceous earth (crystalite 1 - <10%)	Rabbit	Mild irritant
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Rabbit	No significant irritation
1-Dodecylimidazole	In vitro data	Severe irritant
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	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
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	Guinea pig	Not classified
Flux calcined diatomaceous earth (crystalite 1 - <10%)	Mouse	Not classified
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Guinea pig	Not classified
1-Dodecylimidazole	Mouse	Sensitising
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	Multiple animal species	Sensitising
(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
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	In Vitro	Not mutagenic
Flux calcined diatomaceous earth (crystalite 1 - <10%)	In Vitro	Some positive data exist, but the data are not sufficient for classification

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Benzene, bis(phenylmethyl)-, ar-methyl deriv.	In Vitro	Not mutagenic
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	In vivo	Not mutagenic
Oxirane, Polymer with Tetrahydrofuran, Diacetate	In Vitro	Not mutagenic
1-Dodecylimidazole	In Vitro	Not mutagenic
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	In Vitro	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 (crystalite 1 - <10%)	Inhalation	Human and animal	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	prematuring into lactation
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	Ingestion	Toxic to development	Rabbit	LOAEL 10 mg/kg/day	during gestation
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	Ingestion	Not classified for development	Rat	NOAEL 250 mg/kg/day	during gestation
(S)-(-)-P-Mentha-1,8-Diene	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	prematuring & 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
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
(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
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	110531-92-5		Data not available or insufficient for classification			N/A
Fatty Acid Triglycerides	67701-27-3	Green algae	Estimated	72 hours	EC50	>100 mg/l
Fatty Acid Triglycerides	67701-27-3	Water flea	Estimated	48 hours	EC50	>100 mg/l
Fatty Acid Triglycerides	67701-27-3	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Fatty Acid Triglycerides	67701-27-3	Green algae	Estimated	72 hours	NOEC	100 mg/l
Fatty Acid Triglycerides	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	68855-54-9	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l

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(cristobalite 1 - <10%)						
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Oxirane, Polymer with Tetrahydrofuran, Diacetate	91825-26-2		Data not available or insufficient for classification			N/A
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-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-	6485-40-1	Rainbow trout	Experimental	96 hours	LC50	6.1 mg/l

methyl-5-(1-methylethenyl)-, (R)-						
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
(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-(1-methylethyl)-, (2S-trans)-	14073-97-3	Water flea	Experimental	48 hours	EC50	30.6 mg/l
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
Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate]	110531-92-5	Data not available-insufficient	N/A	N/A	N/A	N/A
Fatty Acid Triglycerides	67701-27-3	Estimated Biodegradation	28 days	BOD	79 % BOD/ThOD	OECD 301F - Manometric respirometry
Flux calcined diatomaceous earth (cristobalite 1 -	68855-54-9	Data not available-insufficient	N/A	N/A	N/A	N/A

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<10%)						
Oxirane, Polymer with Tetrahydrofuran, Diacetate	91825-26-2	Data not available-insufficient	N/A	N/A	N/A	N/A
Benzene, bis(phenylmethyl)-, ar-methyl deriv.	53585-53-8	Experimental Biodegradation	28 days	BOD	0.5 % BOD/ThOD	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
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	Estimated Photolysis		Photolytic half-life (in air)	2.7 hours (t 1/2)	Non-standard method
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	Experimental Biodegradation	28 days	BOD	90 % BOD/ThOD	OECD 301F - Manometric respirometry
(S)-(-)-P-Mentha-1,8-Diene	5989-54-8	Data not available-insufficient	N/A	N/A	N/A	N/A
Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-trans)-	14073-97-3	Analogous Compound Biodegradation	28 days	BOD	63 % BOD/ThOD	EC C.4.E Closed Bottle Test

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
Fatty Acid Triglycerides	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
Oxirane, Polymer with Tetrahydrofuran, Diacetate	91825-26-2	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-

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yl)-, ar-methyl deriv.						through fish test
1-Dodecylimidazole	4303-67-7	Estimated Bioconcentration		Bioaccumulation factor	3090	Estimated: Bioconcentration factor
2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (R)-	6485-40-1	Experimental Bioconcentration		Log Kow	2.74	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.

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. , (Dibenzyltoluene; 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. , (Dibenzyltoluene; 1-Dodecylimidazole)

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. , (Dibenzyltoluene; 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

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