

Safety Data Sheet

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 Document group:
 31-5099-2
 Version number:
 2.00

 Issue Date:
 27/07/2021
 Supersedes date:
 09/11/2016

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

3MTM ImpregumTM PentaTM H Soft Quick Refill (31769)

Product Identification Numbers

70-2011-2482-6

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impression Material

Restrictions on use

For use by dental professionals only.

1.3. Supplier's details

Address: 3M 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:

18-7376-9, 18-7381-9

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

This KIT and its components are NOT classified as Dangerous Goods.

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:
 18-7376-9
 Version number:
 5.00

 Issue Date:
 27/07/2021
 Supersedes date:
 09/11/2016

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™ Soft Quick Step Heavy Body 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 |
|------------|---------|--------------|
| ingredient | CAS NUI | 70 by Weight |

| Furan, tetrahydro-, polymer with oxirane, | 110531-92-5 | 50 - 60 |
|---|-------------|---------|
| bis[[3-(1-aziridinyl)butyl]carbamate] | | |
| Fatty Acid Triglycerides | 67701-27-3 | 10 - 20 |
| Flux calcined diatomaceous earth | 68855-54-9 | 1 - 20 |
| (cristobalite 1 - <10%) | | |
| Benzene, bis(phenylmethyl)-, ar-methyl | 53585-53-8 | 5 - 16 |
| deriv. | | |
| Sulfonamide | 80-39-7 | 1 - 5 |
| 1-Dodecylimidazole | 4303-67-7 | < 1 |
| 2-Cyclohexen-1-one, 2-methyl-5-(1- | 6485-40-1 | < 0.2 |
| methylethenyl)-, (R)- | | |

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

SubstanceConditionCarbon 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 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 |
|-----------------|------------|----------------|----------------------------|---------------------|
| 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)

Eve/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face

3MTM ImpregumTM PentaTM Soft Quick Step Heavy Body Base

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 | Characteristic Odour |
| Odour threshold | No data available. |
| рН | No data available. |
| 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 | Not applicable. |
| Vapor Density and/or Relative Vapor Density | Not applicable. |
| 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 | Not applicable. |
| Decomposition temperature | No data available. |
| Viscosity/Kinematic Viscosity | No data available. |
| Volatile organic compounds (VOC) | Not applicable. |
| Percent volatile | Not applicable. |
| VOC less H2O & exempt solvents | Not applicable. |

Nanoparticles

This material does not contain nanoparticles.

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

3MTM ImpregumTM PentaTM Soft Quick Step Heavy Body Base

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.

Eve 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 |
| Fatty Acid Triglycerides | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Fatty Acid Triglycerides | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Benzene, bis(phenylmethyl)-, armethyl deriv. | Dermal | Rat | LD50 > 2,000 mg/kg |
| Benzene, bis(phenylmethyl)-, armethyl 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 |
| Sulfonamide | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Sulfonamide | Ingestion | similar compounds | LD50 estimated to be 300 - 2,000 mg/kg |
| 1-Dodecylimidazole | Ingestion | Rat | LD50 641 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|---------------|---------------------------|
| | | |
| Furan, tetrahydro-, polymer with oxirane, bis[[3-(1- | Rabbit | No significant irritation |
| aziridinyl)butyl]carbamate] | | |
| Benzene, bis(phenylmethyl)-, ar-methyl deriv. | Rabbit | Mild irritant |
| Flux calcined diatomaceous earth (cristobalite 1 - | In vitro data | No significant irritation |
| <10%) | | |
| 1-Dodecylimidazole | Rabbit | Mild irritant |

Serious Eye Damage/Irritation

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

Skin Sensitisation

| Name | Species | Value |
|---|------------|----------------|
| Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate] | Guinea pig | Not classified |
| Benzene, bis(phenylmethyl)-, ar-methyl deriv. | Guinea pig | Not classified |
| Flux calcined diatomaceous earth (cristobalite 1 - | Mouse | Not classified |

3MTM ImpregumTM PentaTM Soft Quick Step Heavy Body Base

| <10%) | | |
|--------------------|-------|-------------|
| 1-Dodecylimidazole | 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 |
| 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 |

Carcinogenicity

| Name | Route | Species | Value |
|----------------------------------|------------|------------------|---------------|
| Flux calcined diatomaceous earth | Inhalation | Human and animal | Carcinogenic. |
| (cristobalite 1 - <10%) | | | |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| eproductive 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 |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|---------------------------|--|---------------------------|---------------------|----------------------|
| Benzene, bis(phenylmet hyl)-, ar- methyl deriv. | 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(phenylmet hyl)-, ar- methyl deriv. | Ingestion | liver kidney and/or bladder heart skin endocrine system gastrointestinal tract bone, teeth, nails, | Not classified | Rat | NOAEL 500 mg/kg/day | 120 days |

| Flux calcined diatomaceous earth | Inhalation | and/or hair hematopoietic system immune system muscles nervous system eyes respiratory system vascular system silicosis | Causes damage to organs through prolonged or | Human | NOAEL Not available | occupational exposure |
|--|------------|---|--|-------|--------------------------|-----------------------|
| (cristobalite 1 - <10%) | | | repeated exposure | | | |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | Ingestion | hematopoietic system eyes kidney and/or bladder | Not classified | Rat | NOAEL 3,738 mg/kg/day | 90 days |

Aspiration Hazard

| Name | Value |
|---|-------------------|
| Benzene, bis(phenylmethyl)-, ar-methyl deriv. | 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 | Туре | Exposure | Test endpoint | Test result |
|------------------|-------------|----------|------------------|----------|---------------|-------------|
| Furan, | 110531-92-5 | | Data not | | | N/A |
| tetrahydro-, | | | available or | | | |
| polymer with | | | insufficient for | | | |
| oxirane, bis[[3- | | | classification | | | |
| (1- | | | | | | |
| aziridinyl)butyl | | | | | | |
|]carbamate] | | | | | | |

| | I | I.a. | I | T== - | I | 1 |
|-------------------------|------------|-----------------|------------------|-------------|------------------|---------------|
| Fatty Acid | 67701-27-3 | Green algae | Estimated | 72 hours | EC50 | >100 mg/l |
| Triglycerides | | 777 | | 10.1 | 7050 | 100 7 |
| Fatty Acid | 67701-27-3 | Water flea | Estimated | 48 hours | EC50 | >100 mg/l |
| Triglycerides | | | | 0.61 | 7.050 | |
| Fatty Acid | 67701-27-3 | Zebra Fish | Estimated | 96 hours | LC50 | >100 mg/l |
| Triglycerides | (7701 07 0 | 0 1 | D 1 | 50.1 | NORG | 100 // |
| Fatty Acid | 67701-27-3 | Green algae | Estimated | 72 hours | NOEC | 100 mg/l |
| Triglycerides | | 777 | | | 21050 | 100 (1 |
| Fatty Acid | 67701-27-3 | Water flea | Estimated | 21 days | NOEC | 100 mg/l |
| Triglycerides | | | _ | | | |
| Flux calcined | 68855-54-9 | | Data not | | | N/A |
| diatomaceous | | | available or | | | |
| earth | | | insufficient for | | | |
| (cristobalite 1 - | | | classification | | | |
| <10%) | 52505 52 0 | D | D | 4.00.1 | EGIA | 1 000 # |
| Benzene, | 53585-53-8 | Bacteria | Experimental | 4.92 hours | EC10 | >1,000 mg/l |
| bis(phenylmeth | | | | | | |
| yl)-, ar-methyl | | | | | | |
| deriv. | 52505 52 0 | C 1 | | 40.1 | 1.050 | . 0.0206 // |
| Benzene, | 53585-53-8 | Copepods | Experimental | 48 hours | LC50 | >0.0206 mg/l |
| bis(phenylmeth | | | | | | |
| yl)-, ar-methyl | | | | | | |
| deriv. | 52505 52 0 | C 1 | D : 1 | 061 | EG50 | 0.010 // |
| Benzene, | 53585-53-8 | Green algae | Experimental | 96 hours | EC50 | 0.019 mg/l |
| bis(phenylmeth | | | | | | |
| yl)-, ar-methyl | | | | | | |
| deriv. | 52505 52 0 | 777 / CI | D : 1 | 40.1 | EGGO | . 0.020 // |
| Benzene, | 53585-53-8 | Water flea | Experimental | 48 hours | EC50 | >0.029 mg/l |
| bis(phenylmeth | | | | | | |
| yl)-, ar-methyl | | | | | | |
| deriv. | 52505 52 0 | 7.1 F.1 | F : 1 | 061 | NT 4 1 4 | 100 /1 |
| Benzene, | 53585-53-8 | Zebra Fish | Experimental | 96 hours | No tox obs at | >100 mg/l |
| bis(phenylmeth | | | | | lmt of water sol | |
| yl)-, ar-methyl | | | | | | |
| deriv. | 52505 52 0 | C | F | 96 hours | EC10 | 0.006 /1 |
| Benzene, | 53585-53-8 | Green algae | Experimental | 96 nours | EC10 | 0.006 mg/l |
| bis(phenylmeth | | | | | | |
| yl)-, ar-methyl | | | | | | |
| deriv. | 53585-53-8 | Water flea | E-m onim ontol | 21 dans | NOEC | 0.02 ~/1 |
| Benzene, bis(phenylmeth | 33383-33-8 | water nea | Experimental | 21 days | NOEC | 0.03 mg/l |
| yl)-, ar-methyl | | | | | | |
| deriv. | | | | | | |
| Sulfonamide | 80-39-7 | Crustecea other | Estimated | 48 hours | EC50 | >=1,000 mg/l |
| Sulfonamide | 80-39-7 | Rainbow trout | Estimated | 96 hours | LC50 | >=80 mg/l |
| 1- | | | | | | |
| Dodecylimidaz | 4303-67-7 | Green Algae | Experimental | 72 hours | EC50 | 0.00557 mg/l |
| _ | | | | | | |
| ole 1- | 4303-67-7 | Water flea | Experimental | 48 hours | EC50 | 100 mg/l |
| • | 4303-07-7 | w ater nea | Experimental | 46 HOURS | ECSU | >100 mg/l |
| Dodecylimidaz | | | | | | |
| ole | 4202 67 7 | Cross slar- | Ermonina a t - 1 | 72 harra | EC10 | 0.0021 m ~ /1 |
| 1- | 4303-67-7 | Green algae | Experimental | 72 hours | EC10 | 0.0021 mg/l |
| Dodecylimidaz | | | | | | |
| ole | 6405 40 1 | Croon Alses | Ermonina a t - 1 | 72 harra | EC50 | 10 m a /1 |
| 2-Cyclohexen- | 6485-40-1 | Green Algae | Experimental | 72 hours | EC50 | 19 mg/l |

| 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 |

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 | |
| Fatty Acid Triglycerides | 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(phenylmeth yl)-, ar-methyl deriv. | 53585-53-8 | Experimental Biodegradation | 28 days | BOD | 0.5 % BOD/ThBOD | OECD 301D - Closed bottle test |
| Sulfonamide | 80-39-7 | Estimated Biodegradation | 28 days | BOD | 25 % weight | OECD 301C - MITI test (I) |
| 1- Dodecylimidaz ole | 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- | 6485-40-1 | Experimental Biodegradation | 28 days | BOD | 90 % BOD/ThBOD | OECD 301F - Manometric respirometry |

| 3M TM Impregum TM Penta TM Soft Quick Step Heavy Body Base |
|---|
|---|

| methylethenyl) | | | |
|----------------|--|--|--|
| -, (R)- | | | |

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 Bioconcentrati on | | Bioaccumulatio n 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(phenylmeth yl)-, ar-methyl deriv. | 53585-53-8 | Experimental BCF-Carp | 56 days | Bioaccumulatio n factor | 6300 | OECD 305E - Bioaccumulation flow- through fish test |
| Sulfonamide | 80-39-7 | Estimated Bioconcentrati on | | Log Kow | 1.87 | Non-standard method |
| 1- Dodecylimidaz ole | 4303-67-7 | Estimated Bioconcentrati on | | Bioaccumulatio n factor | 3090 | Estimated: Bioconcentration factor |
| 2-Cyclohexen- 1-one, 2- methyl-5-(1- methylethenyl) -, (R)- | 6485-40-1 | Experimental Bioconcentrati on | | Log Kow | 2.74 | Non-standard method |

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.: Not applicable.

3MTM ImpregumTM PentaTM Soft Quick Step Heavy Body Base

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.

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:
 18-7381-9
 Version number:
 4.00

 Issue Date:
 27/07/2021
 Supersedes date:
 08/11/2016

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[™] Soft Quick Step Heavy Body 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.

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

May be harmful if swallowed. Causes mild skin irritation.

Toxic to aquatic life.

SECTION 3: Composition/information on ingredients

3M™ Impregum™ Penta™ Soft Quick Step Heavy Body Catalyst

This material is a mixture.

| Ingredient | CAS Nbr | % by Weight |
|--|------------|-------------|
| Citric ester | 77-90-7 | 35 - 50 |
| 2-Propenoic acid, 2-methyl-, 3- | 68909-20-6 | 20 - 30 |
| (trimetoxysilyl)propyl ester, hydrolysis | | |
| products with silica | | |
| Sulphonium salt | 72140-65-9 | 15 - 25 |
| Flux calcined diatomaceous earth | 68855-54-9 | 10 - 20 |
| (cristobalite 1 - <10%) | | |
| 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

Allergic skin reaction (redness, swelling, blistering, and itching). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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 | <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 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 |
|-----------------|------------|----------------|----------------------------|---------------------|
| 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

3M™ Impregum™ Penta™ Soft Quick Step Heavy Body Catalyst

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

| information on basic physical and chemical propertie | 3 |
|--|------------------------------|
| Physical state | Solid. |
| Specific Physical Form: | Paste |
| | |
| Colour | Dark Red |
| Odour | Slight Acrid |
| Odour threshold | No data available. |
| рН | No data available. |
| Melting point/Freezing point | No data available. |
| 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 | Not applicable. |
| Vapor Density and/or Relative Vapor Density | Not applicable. |
| Density | 1.1 g/cm3 - 1.5 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) | Not applicable. |
| Percent volatile | Not applicable. |
| VOC less H2O & exempt solvents | Not applicable. |
| | |

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.

Eve 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 ATE2,000 - 5,000 mg/kg |
| Citric ester | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| Citric ester | Ingestion | Rat | LD50 > 25,000 mg/kg |
| 2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| 2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| 2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica | Ingestion | Rat | LD50 > 5,110 mg/kg |
| Sulphonium salt | Dermal | Rat | LD50 > 2,000 mg/kg |
| Sulphonium salt | Ingestion | Rat | LD50 300-2,000 mg/kg |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 2.7 mg/l |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | Ingestion | Rat | LD50 > 2,000 mg/kg |
| 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 |
|---|---------------|---------------------------|
| 2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl)propyl ester, hydrolysis products with silica | Rabbit | No significant irritation |
| Sulphonium salt | Rabbit | Mild irritant |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | In vitro data | No significant irritation |

Serious Eye Damage/Irritation

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

Skin Sensitisation

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

Respiratory Sensitisation

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

Germ Cell Mutagenicity

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

Carcinogenicity

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

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|-----------|--|---------|-----------------------------|--------------------------|
| 2-Propenoic acid, 2- methyl-, 3- (trimetoxysilyl)propy l ester, hydrolysis products with silica | Ingestion | Not classified for female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| 2-Propenoic acid, 2- methyl-, 3- (trimetoxysilyl)propy l ester, hydrolysis products with silica | Ingestion | Not classified for male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| 2-Propenoic acid, 2- methyl-, 3- (trimetoxysilyl)propy l ester, hydrolysis products with silica | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |
| Sulphonium salt | Ingestion | Not classified for development | Rat | NOAEL 100 mg/kg/day | premating into lactation |
| Sulphonium salt | Ingestion | Toxic to female reproduction | Rat | NOAEL 30 mg/kg/day | premating into lactation |
| Sulphonium 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 |
|-----------------|-----------|-----------------------|----------------|---------|--------------------|----------------------|
| Sulphonium 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 |
|--|------------|--|--|---------|--------------------------|-----------------------|
| 2-Propenoic acid, 2- methyl-, 3- (trimetoxysily l)propyl ester, hydrolysis products with silica | Inhalation | respiratory system silicosis | Not classified | Human | NOAEL Not available | occupational exposure |
| Sulphonium salt | Ingestion | bone marrow | Causes damage to organs through prolonged or repeated exposure | Rat | NOAEL 10 mg/kg/day | 30 days |
| Sulphonium salt | Ingestion | respiratory system | May cause damage to organs though prolonged or repeated exposure | Rat | NOAEL 30 mg/kg/day | 30 days |
| Sulphonium salt | Ingestion | eyes | May cause damage to organs though prolonged or repeated exposure | Rat | NOAEL 100 mg/kg/day | 30 days |
| Sulphonium salt | Ingestion | hematopoietic system liver immune system kidney and/or bladder | Not classified | Rat | NOAEL 300 mg/kg/day | 30 days |
| Sulphonium salt | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 30 mg/kg/day | 30 days |
| Sulphonium salt | Ingestion | auditory system heart skin endocrine system bone, teeth, nails, and/or hair muscles nervous system vascular system | Not classified | Rat | NOAEL 300 mg/kg/day | 30 days |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | Inhalation | silicosis | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | Ingestion | hematopoietic system eyes kidney and/or bladder | Not classified | Rat | NOAEL 3,738 mg/kg/day | 90 days |

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 |
| 2-Propenoic | 68909-20-6 | Algae | Estimated | 72 hours | EC50 | >100 mg/l |
| acid, 2-methyl-, | | | | | | |
| 3- | | | | | | |
| (trimetoxysilyl) | | | | | | |
| propyl ester, | | | | | | |
| hydrolysis | | | | | | |
| products with | | | | | | |
| silica | | | | | | |
| Sulphonium | 72140-65-9 | Green Algae | Estimated | 72 hours | No tox obs at | >100 mg/l |
| salt | | | | | lmt of water sol | |
| Sulphonium | 72140-65-9 | Water flea | Estimated | 48 hours | No tox obs at | >100 mg/l |
| salt | | | | | lmt of water sol | |
| Sulphonium | 72140-65-9 | Zebra Fish | Estimated | 96 hours | No tox obs at | >100 mg/l |
| salt | | | | | lmt of water sol | |
| Sulphonium | 72140-65-9 | Activated | Experimental | 3 hours | EC50 | >1,000 mg/l |
| salt | | sludge | | | | |
| Sulphonium | 72140-65-9 | Green Algae | Estimated | 72 hours | No tox obs at | >100 mg/l |
| salt | | | | | lmt of water sol | |
| Flux calcined | 68855-54-9 | | Data not | | | N/A |
| diatomaceous | | | available or | | | |
| earth | | | insufficient for | | | |
| (cristobalite 1 - | | | classification | | | |
| <10%) | | | | | | |

| Polyethylene- | 9003-11-6 | | Data not | | N/A |
|---------------|-----------|---|------------------|--|-----|
| polypropylene | | a | available or | | |
| glycol | | i | insufficient for | | |
| | | c | classification | | |

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 |
| 2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl) propyl ester, hydrolysis products with silica | 68909-20-6 | Data not available- insufficient | | | N/A | |
| Sulphonium salt | 72140-65-9 | Experimental Hydrolysis | | Hydrolytic half-life | 2.08 hours (t 1/2) | Non-standard method |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | 68855-54-9 | Data not available- insufficient | | | N/A | |
| Polyethylene- polypropylene glycol | 9003-11-6 | Data not available-insufficient | | | N/A | |

12.3 : Bioaccumulative potential

| Material | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|---|------------|--|----------|----------------------------|-------------|---------------------------------------|
| Citric ester | 77-90-7 | Estimated Bioconcentrati on | | Bioaccumulatio n factor | 5.1 | Estimated: Bioconcentration factor |
| 2-Propenoic acid, 2-methyl-, 3- (trimetoxysilyl) propyl ester, hydrolysis products with silica | 68909-20-6 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Sulphonium salt | 72140-65-9 | Experimental Bioconcentrati on | | Log Kow | ≤0.75 | 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 |
| 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.

Proper destruction may require the use of additional fuel during incineration processes. 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.: 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.

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