# Safety Data Sheet



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| **Document group:** | 24-3768-9 | **Version number:** | 2.00 |
| **Issue Date:** | 21/11/2018 | **Supersedes date:** | 17/06/2013 |

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

## IDENTIFICATION:

**1.1. Product identifier**
3M™ ESPE™ Imprint™ 3 Putty Soft Refill

**Product Identification Numbers**
70-2011-3063-3

**1.2. Recommended use and restrictions on use**

**Recommended use**
Dental Product, Impression Material

**Restrictions on use**
For use by dental professionals only.

**1.3. Supplier's details**

| | |
|---|---|
| **Address:** | 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland |
| **Telephone:** | (09) 477 4040 |
| **E Mail:** | innovation@nz.mmm.com |
| **Website:** | 3m.co.nz |

**1.4. Emergency telephone number**
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the SDSs for components of this product are:**

24-3727-5, 24-3724-2

All components in this KIT are classified as non-hazardous in accordance with the relevant criteria of the HSNO Act 1996, the Hazardous Substances (Classification) Notice 2017 and Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.

## TRANSPORT INFORMATION

NOT HAZARDOUS FOR TRANSPORT

**Revision information:**
Complete document review.

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# Safety Data Sheet



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|---|---|---|---|
| **Document group:** | 24-3724-2 | **Version number:** | 3.00 |
| **Issue Date:** | 18/06/2023 | **Supersedes date:** | 21/11/2018 |

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

## SECTION 1: Identification

**1.1. Product identifier**
3M™ Imprint™ 3 Putty Soft Base Paste

**1.2. Recommended use and restrictions on use**

**Recommended use**
Dental Material, Impression Material

**Restrictions on use**
For use by dental professionals only.

**1.3. Supplier's details**

| | |
|---|---|
| **Address:** | 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland |
| **Telephone:** | (09) 477 4040 |
| **E Mail:** | innovation@nz.mmm.com |
| **Website:** | 3m.co.nz |

**1.4. Emergency telephone number**
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

## SECTION 2: Hazard identification

Classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996 and the Hazardous Substances (Hazard Classification) Notice 2020.
Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

**2.1. Classification of the substance or mixture**
Hazardous to the aquatic environment chronic: Category 3

**2.2. Label elements**
**SIGNAL WORD**
Not applicable.

**Symbols:**
Not applicable.

**HAZARD STATEMENTS:**

| | |
|---|---|
| H412 | Harmful to aquatic life with long lasting effects. |

**PRECAUTIONARY STATEMENTS**

**Prevention**

| | |
|---|---|
| P273 | Avoid release to the environment. |

**Disposal**

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

**2.3. Other hazards**

The silicosis target organ toxicity classification is not applied because there is no potential for inhalation exposure.

## SECTION 3: Composition/information on ingredients

| Ingredient | CAS Nbr | % by Weight |
|---|---|---|
| Aluminium trihydroxide | 21645-51-2 | 35 - 40 |
| Cristobalite | 14464-46-1 | 15 - 25 |
| Vinyl polydimethylsiloxane | 68083-19-2 | 15 - 25 |
| Zeolites | 1318-02-1 | 10 - 15 |
| Dimethyl methyl hydrogen silicone fluid | 68037-59-2 | 1 - 10 |
| Hydrocarbons | 8042-47-5 | 1 - 10 |
| Octamethylcyclotetrasiloxane | 556-67-2 | < 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**

Wash with soap and water. 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**

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**

| Substance | Condition |
|---|---|
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |
| Irritant vapours or gases. | During combustion. |

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

**5.4. Hazchem code:** Not applicable.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**
Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

**7.1. Precautions for safe handling**
Avoid prolonged or repeated skin contact. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

**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. Store away from amines.

**7.3. Certified handler**
Not required

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|---|---|---|---|---|
| Aluminum, insoluble compounds | 1318-02-1 | ACGIH | TWA(respirable fraction):1 | A4: Not class. as human |

| | | | | |
|---|---|---|---|---|
| | | | mg/m3 | carcinogin |
| Cristobalite | 14464-46-1 | ACGIH | TWA(respirable fraction):0.025 mg/m3 | A2: Suspected human carcin. |
| Dust, inert or nuisance | 14464-46-1 | New Zealand WES | TWA(as respirable dust)(8 hours):3 mg/m3;TWA(as inhalable dust)(8 hours):10 mg/m3 | |
| Glass filaments | 14464-46-1 | New Zealand WES | TWA(Respirable fibers)(8 hours):1 f/mL;TWA(as respirable dust)(8 hours):1 f/mL;TWA(as inhalable dust)(8 hours):5 mg/m3 | |
| Silica, crystalline (airborne particles of respirable size) | 14464-46-1 | New Zealand WES | TWA(as respirable dust)(8 hours):0.05 mg/m3 | Carcinogenicity Category 1, carc HCA, Confirmed human carcinogen |
| Aluminum, insoluble compounds | 21645-51-2 | ACGIH | TWA(respirable fraction):1 mg/m3 | A4: Not class. as human carcinogin |
| Dust, inert or nuisance | 21645-51-2 | New Zealand WES | TWA(as respirable dust)(8 hours):3 mg/m3;TWA(as inhalable dust)(8 hours):10 mg/m3 | |
| Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles | 21645-51-2 | ACGIH | TWA(inhalable particulates):10 mg/m3 | |
| Particles (insoluble or poorly soluble) not otherwise specified, respirable particles | 21645-51-2 | ACGIH | TWA(respirable particles):3 mg/m3 | |
| Octamethylcyclotetrasiloxane | 556-67-2 | AIHA | TWA:10 ppm | |
| Mineral oils, highly-refined oils | 8042-47-5 | ACGIH | TWA(inhalable fraction):5 mg/m3 | A4: Not class. as human carcinogin |
| Paraffin oil | 8042-47-5 | New Zealand WES | TWA(as mist)(8 hours):5 mg/m3;STEL(as mist)(15 minutes):10 mg/m3 | |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
$mg/m^3$: milligrams per cubic metre
CEIL: Ceiling

**8.2. Exposure controls**

**8.2.1. Engineering controls**
Use in a well-ventilated area.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS

1337, Parts 1 - 6 - Personal eye-protection.

**Skin/hand protection**
See Section 7.1 for additional information on skin protection.

**Respiratory protection**
None required.

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

| | |
|---|---|
| **Physical state** | Solid. |
| **Specific Physical Form:** | Paste |
| **Colour** | Burgundy |
| **Odour** | Odourless |
| **Odour threshold** | *No data available.* |
| **pH** | *Not applicable.* |
| **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** | *No data available.* |
| **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** | ± 1.5 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)** | *No data available.* |
| **Percent volatile** | *No data available.* |
| **VOC less H2O & exempt solvents** | *No data available.* |

## SECTION 10: Stability and reactivity

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

**10.2 Chemical stability**
Stable.

**10.3 Possibility of hazardous reactions**
Hazardous polymerisation will not occur.

**10.4 Conditions to avoid**
Heat.

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

**10.6 Hazardous decomposition products**

| Substance | Condition |
|---|---|
| None known. | |

Refer to Section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

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

**11.1 Information on Toxicological effects**

**Signs and Symptoms of Exposure**

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

**Inhalation**
No health effects are expected.

**Skin contact**
Contact with the skin during product use is not expected to result in significant irritation.

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

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

**Additional Health Effects:**

**Carcinogenicity:**
Exposures needed to cause the following health effect(s) are not expected during normal, intended use:
Contains a chemical or chemicals which can cause cancer.

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

**Acute Toxicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Aluminium trihydroxide | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Aluminium trihydroxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 2.3 mg/l |

| | | | |
|---|---|---|---|
| Aluminium trihydroxide | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Cristobalite | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Cristobalite | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Vinyl polydimethylsiloxane | Dermal | Rabbit | LD50 > 15,440 mg/kg |
| Vinyl polydimethylsiloxane | Ingestion | Rat | LD50 > 15,440 mg/kg |
| Zeolites | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Zeolites | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 4.57 mg/l |
| Zeolites | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Dimethyl methyl hydrogen silicone fluid | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Hydrocarbons | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Dimethyl methyl hydrogen silicone fluid | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Hydrocarbons | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Octamethylcyclotetrasiloxane | Dermal | Rat | LD50 > 2,400 mg/kg |
| Octamethylcyclotetrasiloxane | Inhalation-Dust/Mist (4 hours) | Rat | LC50 36 mg/l |
| Octamethylcyclotetrasiloxane | Ingestion | Rat | LD50 > 5,000 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Aluminium trihydroxide | Rabbit | No significant irritation |
| Cristobalite | Professional judgement | No significant irritation |
| Vinyl polydimethylsiloxane | Rabbit | No significant irritation |
| Zeolites | Rabbit | No significant irritation |
| Dimethyl methyl hydrogen silicone fluid | Rabbit | No significant irritation |
| Hydrocarbons | Rabbit | No significant irritation |
| Octamethylcyclotetrasiloxane | Rabbit | Minimal irritation |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Aluminium trihydroxide | Rabbit | No significant irritation |
| Vinyl polydimethylsiloxane | Rabbit | Mild irritant |
| Zeolites | Rabbit | Mild irritant |
| Dimethyl methyl hydrogen silicone fluid | Rabbit | Mild irritant |
| Hydrocarbons | Rabbit | Mild irritant |
| Octamethylcyclotetrasiloxane | Rabbit | No significant irritation |

**Sensitisation:**

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| Aluminium trihydroxide | Guinea pig | Not classified |
| Dimethyl methyl hydrogen silicone fluid | Guinea pig | Not classified |
| Hydrocarbons | Guinea pig | Not classified |
| Octamethylcyclotetrasiloxane | Human and animal | 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 |
|---|---|---|
| Cristobalite | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Cristobalite | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Dimethyl methyl hydrogen silicone fluid | In Vitro | Not mutagenic |
| Hydrocarbons | In Vitro | Not mutagenic |
| Octamethylcyclotetrasiloxane | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Aluminium trihydroxide | Not specified. | Multiple animal species | Not carcinogenic |
| Cristobalite | Inhalation | Human and animal | Carcinogenic. |
| Hydrocarbons | Dermal | Mouse | Not carcinogenic |
| Hydrocarbons | Inhalation | Multiple animal species | Not carcinogenic |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| Aluminium trihydroxide | Ingestion | Not classified for development | Rat | NOAEL 768 mg/kg/day | during organogenesis |
| Hydrocarbons | Ingestion | Not classified for female reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| Hydrocarbons | Ingestion | Not classified for male reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| Hydrocarbons | Ingestion | Not classified for development | Rat | NOAEL 4,350 mg/kg/day | during gestation |
| Octamethylcyclotetrasiloxane | Inhalation | Not classified for male reproduction | Rat | NOAEL 8.5 mg/l | 2 generation |
| Octamethylcyclotetrasiloxane | Ingestion | Toxic to female reproduction | Rabbit | NOAEL 50 mg/kg/day | during organogenesis |
| Octamethylcyclotetrasiloxane | Inhalation | Toxic to female reproduction | Rat | NOAEL 3.6 mg/l | 2 generation |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

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

**Specific Target Organ Toxicity - repeated exposure**

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Cristobalite | Inhalation | silicosis | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| Hydrocarbons | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,381 mg/kg/day | 90 days |

| | | | | | | |
|---|---|---|---|---|---|---|
| Hydrocarbons | Ingestion | liver \| immune system | Not classified | Rat | NOAEL 1,336 mg/kg/day | 90 days |
| Octamethylcyclotetrasiloxane | Dermal | hematopoietic system | Not classified | Rabbit | NOAEL 960 mg/kg/day | 3 weeks |
| Octamethylcyclotetrasiloxane | Inhalation | liver | Not classified | Rat | NOAEL 8.5 mg/l | 13 weeks |
| Octamethylcyclotetrasiloxane | Inhalation | endocrine system \| immune system \| kidney and/or bladder | Not classified | Rat | NOAEL 8.5 mg/l | 2 generation |
| Octamethylcyclotetrasiloxane | Inhalation | hematopoietic system | Not classified | Rat | NOAEL 8.5 mg/l | 13 weeks |
| Octamethylcyclotetrasiloxane | Ingestion | liver | Not classified | Rat | NOAEL 1,600 mg/kg/day | 2 weeks |

**Aspiration Hazard**

| Name | Value |
|---|---|
| Hydrocarbons | Aspiration hazard |

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

## SECTION 12: Ecological information

**The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.**

**12.1. Toxicity**
**Ecotoxic to the aquatic environment.**
Chronic Aquatic Toxicity: Category 3

No product test data available.

| Material | CAS Number | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| Aluminium trihydroxide | 21645-51-2 | Fish | Experimental | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Aluminium trihydroxide | 21645-51-2 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Aluminium trihydroxide | 21645-51-2 | Water flea | Experimental | 48 hours | No tox obs at lmt of water sol | >100 mg/l |
| Aluminium trihydroxide | 21645-51-2 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | 100 mg/l |
| Cristobalite | 14464-46-1 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Vinyl polydimethylsiloxane | 68083-19-2 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Zeolites | 1318-02-1 | African clawed frog | Analogous Compound | 96 hours | LC50 | 1,800 mg/l |
| Zeolites | 1318-02-1 | Fathead | Analogous | 96 hours | LC50 | >680 mg/l |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | minnow | Compound | | | |
| Zeolites | 1318-02-1 | Green algae | Analogous Compound | 72 hours | EC50 | 130 mg/l |
| Zeolites | 1318-02-1 | Sediment organism | Analogous Compound | 22 days | EC50 | 364.9 mg/l |
| Zeolites | 1318-02-1 | Water flea | Analogous Compound | 48 hours | EC50 | >100 mg/l |
| Zeolites | 1318-02-1 | Fathead minnow | Analogous Compound | 30 days | NOEC | 86.7 mg/l |
| Zeolites | 1318-02-1 | Green algae | Analogous Compound | 72 hours | NOEC | 18 mg/l |
| Zeolites | 1318-02-1 | Water flea | Analogous Compound | 21 days | NOEC | 32 mg/l |
| Zeolites | 1318-02-1 | Bacteria | Experimental | 16 hours | EC50 | 950 mg/l |
| Zeolites | 1318-02-1 | Radish | Experimental | 23 days | EC50 | 4,000 mg/kg (Dry Weight) |
| Dimethyl methyl hydrogen silicone fluid | 68037-59-2 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Hydrocarbons | 8042-47-5 | Water flea | Analogous Compound | 48 hours | EL50 | >100 mg/l |
| Hydrocarbons | 8042-47-5 | Bluegill | Experimental | 96 hours | LL50 | >100 mg/l |
| Hydrocarbons | 8042-47-5 | Green algae | Analogous Compound | 72 hours | NOEL | 100 mg/l |
| Hydrocarbons | 8042-47-5 | Water flea | Analogous Compound | 21 days | NOEL | >100 mg/l |
| Octamethylcyclotetrasiloxane | 556-67-2 | Blackworm | Experimental | 28 days | NOEC | 0.73 mg/kg (Dry Weight) |
| Octamethylcyclotetrasiloxane | 556-67-2 | Midge | Experimental | 14 days | LC50 | >170 mg/kg (Dry Weight) |
| Octamethylcyclotetrasiloxane | 556-67-2 | Mysid Shrimp | Experimental | 96 hours | LC50 | >0.0091 mg/l |
| Octamethylcyclotetrasiloxane | 556-67-2 | Rainbow trout | Experimental | 96 hours | LC50 | >0.022 mg/l |
| Octamethylcyclotetrasiloxane | 556-67-2 | Water flea | Experimental | 48 hours | EC50 | >0.015 mg/l |
| Octamethylcyclotetrasiloxane | 556-67-2 | Rainbow trout | Experimental | 93 days | NOEC | 0.0044 mg/l |
| Octamethylcyclotetrasiloxane | 556-67-2 | Water flea | Experimental | 21 days | NOEC | 0.015 mg/l |
| Octamethylcyclotetrasiloxane | 556-67-2 | Activated sludge | Experimental | 3 hours | EC50 | >10,000 mg/l |

**12.2. Persistence and degradability**

| Material | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Aluminium trihydroxide | 21645-51-2 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| Cristobalite | 14464-46-1 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| Vinyl | 68083-19-2 | Data not | N/A | N/A | N/A | N/A |

| | | | | | | |
|---|---|---|---|---|---|---|
| polydimethylsiloxane | | availbl-insufficient | | | | |
| Zeolites | 1318-02-1 | Analogous Compound Hydrolysis | | Hydrolytic half-life | 60 days (t 1/2) | |
| Dimethyl methyl hydrogen silicone fluid | 68037-59-2 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| Hydrocarbons | 8042-47-5 | Experimental Biodegradation | 28 days | CO2 evolution | 0 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| Octamethylcyclotetrasiloxane | 556-67-2 | Experimental Biodegradation | 29 days | CO2 evolution | 3.7 %CO2 evolution/THCO2 evolution | OECD 310 CO2 Headspace |
| Octamethylcyclotetrasiloxane | 556-67-2 | Experimental Photolysis | | Photolytic half-life (in air) | 31 days (t 1/2) | |
| Octamethylcyclotetrasiloxane | 556-67-2 | Experimental Hydrolysis | | Hydrolytic half-life (pH 7) | 69.3-144 hours (t 1/2) | OECD 111 Hydrolysis func of pH |

**12.3 : Bioaccumulative potential**

| Material | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Aluminium trihydroxide | 21645-51-2 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Cristobalite | 14464-46-1 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Vinyl polydimethylsiloxane | 68083-19-2 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Zeolites | 1318-02-1 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Dimethyl methyl hydrogen silicone fluid | 68037-59-2 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Hydrocarbons | 8042-47-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Octamethylcyclotetrasiloxane | 556-67-2 | Experimental BCF - Fish | 28 days | Bioaccumulation factor | 12400 | 40CFR 797.1520-Fish Bioaccumm |
| Octamethylcyclotetrasiloxane | 556-67-2 | Experimental Bioconcentration | | Log Kow | 6.49 | OECD 123 log Kow slow stir |

**12.4. Mobility in soil**

Please contact manufacturer for more details

**12.5 Other adverse effects**
No information available.

## SECTION 13: Disposal considerations

**13.1. Disposal methods**
In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

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

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

## SECTION 14: Transport Information

**New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport**
**UN No.:** Not applicable.
**Proper Shipping Name:** Not applicable.
**Class/Division:** Not applicable.
**Sub Risk:** Not applicable.
**Packing Group:** Not applicable.

**Hazchem Code:** Not applicable.
**IERG:** Not applicable.

**International Air Transport Association (IATA) - Air Transport**
**UN No.:** Not applicable.
**Proper Shipping Name:** Not applicable.
**Class/Division:** Not applicable.
**Sub Risk:** Not applicable.
**Packing Group:** Not applicable.

**International Maritime Dangerous Goods Code (IMDG) - Marine Transport**
**UN No.:** Not applicable.
**Proper Shipping Name:** Not applicable.
**Class/Division:** Not applicable.
**Sub Risk:** Not applicable.
**Packing Group:** Not applicable.
**Marine Pollutant:** Not applicable.

## SECTION 15: Regulatory information

| | |
|---|---|
| HSNO Approval number | Not applicable |
| Group standard name | Not applicable |
| HSNO Hazard classification | Refer to Section 2: Hazard identification |

**NZ Inventory of Chemicals (NZIoC) Status**
All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements.

**Controls in accordance with The Health and Safety at Work Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017 and the HSNO Act 1996, Hazardous Substances (Hazardous Property Controls) Notice 2017**

| | |
|---|---|
| Certified handler | Not required |
| Location Compliance Certificate | Not required |
| Hazardous atmosphere zone | Not required |
| Fire extinguishers | Not required |
| Emergency response plan | Not required |
| Secondary containment | Not required |
| Tracking | Not required |
| Warning signage | Not required |

## SECTION 16: Other information

**Revision information:**
Complete document review.

| | | | |
|---|---|---|---|
| **Document group:** | 24-3724-2 | **Version number:** | 3.00 |
| **Issue Date:** | 18/06/2023 | **Supersedes date:** | 21/11/2018 |

**Key to abbreviations and acronyms**
**GHS** refers to the Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition of 2017
**HSNO** means Hazardous Substances and New Organisms Act 1996

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date of issue. TO THE EXTENT PERMITTED BY LAW, 3M MAKES NO WARRANTY, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluates the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. 3M provides information in electronic form as a service to customers. Due to the remote possibility of electronic transfer may have resulted in errors, omissions or alterations in this information; 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

**3M New Zealand SDS are available at 3M New Zealand Website: http://solutions.3mnz.co.nz**

# Safety Data Sheet



| | | | |
|---|---|---|---|
| **Document group:** | 24-3727-5 | **Version number:** | 2.00 |
| **Issue Date:** | 21/11/2018 | **Supersedes date:** | 17/06/2013 |

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

## SECTION 1: Identification

**1.1. Product identifier**
3M™ ESPE™ IMPRINT™ 3 PUTTY SOFT CATALYST

**1.2. Recommended use and restrictions on use**

**Recommended use**
Dental Product, Impression Material

**Restrictions on use**
For use by dental professionals only.

**1.3. Supplier's details**

| | |
|---|---|
| **Address:** | 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland |
| **Telephone:** | (09) 477 4040 |
| **E Mail:** | innovation@nz.mmm.com |
| **Website:** | 3m.co.nz |

**1.4. Emergency telephone number**
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

## SECTION 2: Hazard identification

Not classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996, the Hazardous Substances (Classification) Notice 2017 and Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.
Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

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

| GHS | HSNO |
|---|---|
| Not classified as hazardous. | Not classified as hazardous. |

**2.2. Label elements**
**SIGNAL WORD**
Not applicable.

**Symbols:**
Not applicable.

## SECTION 3: Composition/information on ingredients

| Ingredient | CAS Nbr | % by Weight |
|---|---|---|
| Alumina | 21645-51-2 | 35 - 40 |
| Cristobalite | 14464-46-1 | 30 - 35 |
| Vinyl polydimethylsiloxane | 68083-19-2 | 25 - 30 |
| Hydrocarbons | 8042-47-5 | 5 - 10 |
| Amorphous silica | 112945-52-5 | < 5 |
| Quartz | 14808-60-7 | < 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**
Wash with soap and water. 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**
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**

| Substance | Condition |
|---|---|
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |
| Irritant vapours or gases. | During combustion. |

**5.3. Special protective actions for fire-fighters**
No special protective actions for fire-fighters are anticipated.

**5.4. Hazchem code:** Not applicable.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Ventilate the area with fresh air. Observe precautions from other sections.

**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. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

**7.1. Precautions for safe handling**
Avoid prolonged or repeated skin contact. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

**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. Store away from amines.

**7.3. Certified handler**
Not required

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|---|---|---|---|---|
| Cristobalite | 14464-46-1 | ACGIH | TWA(respirable fraction):0.025 mg/m3 | A2: Suspected human carcin. |
| Silica, crystalline (airborne particles of respirable size) | 14464-46-1 | New Zealand WES | TWA(as respirable dust)(8 hours): 0.1 mg/m3 | Class-subclass 6.7, carc HCA |
| Quartz | 14808-60-7 | ACGIH | TWA(respirable fraction):0.025 mg/m3 | A2: Suspected human carcin. |
| Silica, crystalline (airborne particles of respirable size) | 14808-60-7 | New Zealand WES | TWA(as respirable dust)(8 hours): 0.1 mg/m3 | Class-subclass 6.7, carc HCA |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m³: milligrams per cubic metre
CEIL: Ceiling

**8.2. Exposure controls**

**8.2.1. Engineering controls**
Use in a well-ventilated area.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

**Skin/hand protection**
No protective gloves required. See Section 7.1 for additional information on skin protection.

**Respiratory protection**

Respiratory protection is not required.

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

| | |
|---|---|
| **Physical state** | Solid. |
| **Specific Physical Form:** | Paste |
| **Appearance/Odour** | odourless, white paste |
| **Odour threshold** | *No data available.* |
| **pH** | *Not applicable.* |
| **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** | *No data available.* |
| **Flammability (solid, gas)** | Not classified |
| **Flammable Limits(LEL)** | *Not applicable.* |
| **Flammable Limits(UEL)** | *Not applicable.* |
| **Vapour pressure** | *Not applicable.* |
| **Vapour density** | *Not applicable.* |
| **Density** | 1.4 - 1.6 g/cm3 |
| **Relative density** | >= 1 [*Ref Std:*WATER=1] |
| **Water solubility** | Negligible |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *Not applicable.* |
| **Autoignition temperature** | *No data available.* |
| **Decomposition temperature** | *No data available.* |
| **Viscosity** | *No data available.* |
| **Volatile organic compounds (VOC)** | *No data available.* |

## SECTION 10: Stability and reactivity

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

**10.2 Chemical stability**
Stable.

**10.3 Possibility of hazardous reactions**
Hazardous polymerisation will not occur.

**10.4 Conditions to avoid**
Heat.

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

**10.6 Hazardous decomposition products**

| Substance | Condition |
|---|---|
| None known. | |

Refer to Section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

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

**11.1 Information on Toxicological effects**

**Signs and Symptoms of Exposure**

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

**Inhalation**
No health effects are expected.

**Skin contact**
Contact with the skin during product use is not expected to result in significant irritation.

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

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

**Additional Health Effects:**

**Carcinogenicity:**
Exposures needed to cause the following health effect(s) are not expected during normal, intended use:
Contains a chemical or chemicals which can cause cancer.

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

**Acute Toxicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Alumina | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Alumina | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Cristobalite | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Cristobalite | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Vinyl polydimethylsiloxane | Dermal | Rabbit | LD50 > 15,440 mg/kg |
| Vinyl polydimethylsiloxane | Ingestion | Rat | LD50 > 15,440 mg/kg |
| Hydrocarbons | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Hydrocarbons | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Quartz | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Quartz | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Amorphous silica | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Amorphous silica | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| Amorphous silica | Ingestion | Rat | LD50 > 5,110 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Alumina | Rabbit | No significant irritation |
| Cristobalite | Professional judgement | No significant irritation |
| Vinyl polydimethylsiloxane | Rabbit | No significant irritation |
| Hydrocarbons | Rabbit | No significant irritation |
| Amorphous silica | Rabbit | No significant irritation |
| Quartz | Professional judgement | No significant irritation |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Alumina | Rabbit | No significant irritation |
| Vinyl polydimethylsiloxane | Rabbit | Mild irritant |
| Hydrocarbons | Rabbit | Mild irritant |
| Amorphous silica | Rabbit | No significant irritation |

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| Alumina | Guinea pig | Not classified |
| Hydrocarbons | Guinea pig | Not classified |
| Amorphous silica | Human and animal | 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 |
|---|---|---|
| Cristobalite | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Cristobalite | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Hydrocarbons | In Vitro | Not mutagenic |
| Amorphous silica | In Vitro | Not mutagenic |
| Quartz | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Quartz | In vivo | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Alumina | Not specified. | Multiple animal species | Not carcinogenic |
| Cristobalite | Inhalation | Human and animal | Carcinogenic. |
| Hydrocarbons | Dermal | Mouse | Not carcinogenic |
| Hydrocarbons | Inhalation | Multiple animal species | Not carcinogenic |
| Amorphous silica | Not specified. | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Quartz | Inhalation | Human and animal | Carcinogenic. |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| Alumina | Ingestion | Not classified for development | Rat | NOAEL 768 mg/kg/day | during organogenesis |
| Hydrocarbons | Ingestion | Not classified for female reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| Hydrocarbons | Ingestion | Not classified for male reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks |
| Hydrocarbons | Ingestion | Not classified for development | Rat | NOAEL 4,350 mg/kg/day | during gestation |
| Amorphous silica | Ingestion | Not classified for female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| Amorphous silica | Ingestion | Not classified for male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| Amorphous silica | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

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

**Specific Target Organ Toxicity - repeated exposure**

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Cristobalite | Inhalation | silicosis | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| Hydrocarbons | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 1,381 mg/kg/day | 90 days |
| Hydrocarbons | Ingestion | liver \| immune system | Not classified | Rat | NOAEL 1,336 mg/kg/day | 90 days |
| Amorphous silica | Inhalation | respiratory system \| silicosis | Not classified | Human | NOAEL Not available | occupational exposure |
| Quartz | Inhalation | silicosis | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |

**Aspiration Hazard**

| Name | Value |
|---|---|
| Hydrocarbons | Aspiration hazard |

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

## SECTION 12: Ecological information

**The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.**

**12.1. Toxicity**

No product test data available.

| Material | CAS Number | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| Alumina | 21645-51-2 | Water flea | Experimental | 48 hours | No tox obs at lmt of water sol | >100 mg/l |
| Alumina | 21645-51-2 | Green Algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Alumina | 21645-51-2 | Fish other | Experimental | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Alumina | 21645-51-2 | Green Algae | Experimental | 72 hours | No tox obs at lmt of water sol | 100 mg/l |
| Cristobalite | 14464-46-1 | | Data not available or insufficient for classification | | | |
| Vinyl polydimethylsiloxane | 68083-19-2 | | Data not available or insufficient for classification | | | |
| Hydrocarbons | 8042-47-5 | Bluegill | Experimental | 96 hours | Lethal Level 50% | >100 mg/l |
| Hydrocarbons | 8042-47-5 | Water flea | Estimated | 48 hours | Effect Level | >100 mg/l |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | 50% | |
| Hydrocarbons | 8042-47-5 | Water flea | Estimated | 21 days | No obs Effect Level | >100 mg/l |
| Hydrocarbons | 8042-47-5 | Green algae | Estimated | 72 hours | No obs Effect Level | >100 mg/l |
| Amorphous silica | 112945-52-5 | Zebra Fish | Experimental | 96 hours | LC50 | >100 mg/l |
| Amorphous silica | 112945-52-5 | Water flea | Experimental | 24 hours | EC50 | >100 mg/l |
| Amorphous silica | 112945-52-5 | Green Algae | Experimental | 72 hours | EC50 | >100 mg/l |
| Amorphous silica | 112945-52-5 | Green Algae | Experimental | 72 hours | NOEC | 60 mg/l |
| Quartz | 14808-60-7 | | Data not available or insufficient for classification | | | |

**12.2. Persistence and degradability**

| Material | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Alumina | 21645-51-2 | Data not availbl-insufficient | | | N/A | |
| Cristobalite | 14464-46-1 | Data not availbl-insufficient | | | N/A | |
| Vinyl polydimethylsiloxane | 68083-19-2 | Data not availbl-insufficient | | | N/A | |
| Hydrocarbons | 8042-47-5 | Experimental Biodegradation | 28 days | CO2 evolution | 0 % weight | OECD 301B - Modified sturm or CO2 |
| Amorphous silica | 112945-52-5 | Data not availbl-insufficient | | | N/A | |
| Quartz | 14808-60-7 | Data not availbl-insufficient | | | N/A | |

**12.3 : Bioaccumulative potential**

| Material | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Alumina | 21645-51-2 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Cristobalite | 14464-46-1 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Vinyl polydimethylsiloxane | 68083-19-2 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

| | | | | | | |
|---|---|---|---|---|---|---|
| Hydrocarbons | 8042-47-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Amorphous silica | 112945-52-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Quartz | 14808-60-7 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

**12.4. Mobility in soil**
Please contact manufacturer for more details

**12.5 Other adverse effects**
No information available.

## SECTION 13: Disposal considerations

**13.1. Disposal methods**
In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

Dispose of waste product in a permitted industrial waste facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

## SECTION 14: Transport Information

**New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport**
**UN No.:** Not applicable.
**Proper Shipping Name:** Not applicable.
**Class/Division:** Not applicable.
**Sub Risk:** Not applicable.
**Packing Group:** Not applicable.

**Hazchem Code:** Not applicable.
**IERG:** Not applicable.

**International Air Transport Association (IATA) - Air Transport**
**UN No.:** Not applicable.
**Proper Shipping Name:** Not applicable.
**Class/Division:** Not applicable.
**Sub Risk:** Not applicable.
**Packing Group:** Not applicable.

**International Maritime Dangerous Goods Code (IMDG) - Marine Transport**
**UN No.:** Not applicable.
**Proper Shipping Name:** Not applicable.
**Class/Division:** Not applicable.
**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.
**Marine Pollutant:** Not applicable.

## SECTION 15: Regulatory information

| | |
|---|---|
| HSNO Approval number | Not applicable |
| Group standard name | Not applicable |
| HSNO Hazard classification | Refer to Section 2: Hazard identification |

**NZ Inventory of Chemicals (NZIoC) Status**
All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements

**Controls in accordance with the Health and Safety at Work (Hazardous Substances) Regulations 2017**

| | |
|---|---|
| Certified handler | Not required |
| Location Compliance Certificate | Not required |
| Hazardous atmosphere zone | Not required |
| Fire extinguishers | Not required |
| Emergency response plan | Not required |
| Secondary containment | Not required |
| Tracking | Not required |
| Warning signage | Not required |

## SECTION 16: Other information

**Revision information:**
Complete document review.

| | | | |
|---|---|---|---|
| **Document group:** | 24-3727-5 | **Version number:** | 2.00 |
| **Issue Date:** | 21/11/2018 | **Supersedes date:** | 17/06/2013 |

**Key to abbreviations and acronyms**
**GHS** means the Globally Harmonised System of Classification and Labelling of Chemicals, 5th revised edition 2013
**HSNO** means Hazardous Substances and New Organisms Act 1996

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**3M New Zealand SDS are available at 3M New Zealand Website: http://solutions.3mnz.co.nz**