



## Safety Data Sheet

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|                                |                   |                  |            |
|--------------------------------|-------------------|------------------|------------|
| Document group:                | 16-2743-9         | Version number:  | 5.01       |
| Revision date:                 | 05/05/2015        | Supersedes date: | 05/05/2015 |
| Transportation version number: | 1.00 (08/01/2013) |                  |            |

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

### IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

3M™ ESPET™ IMPREGUM PENTA™ SOFT/ IMPREGUM PENTA™ SOFT MB/ IMPREGUM PENTA H  
DUOSOFT/IMPREGUM PENTA™ SOFT HB

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Dental product

##### Restrictions on Use

For professional dentists use only.

#### 1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.  
Telephone: +44 (0)1344 858 000  
E Mail: tox.uk@mmm.com  
Website: www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

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 MSDSs for components of this product are:

16-2742-1, 16-2740-5

### TRANSPORTATION INFORMATION

IATA/ADR/IMDG: Not restricted for transport.

### KIT LABEL

#### 2.2. Label elements

**CLP REGULATION (EC) No 1272/2008**

Not applicable

**Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive**

Not applicable

**Notes on labelling**

This product is exempt from labelling per Directive 1999/45/EC as it is defined as a medical device according to Directive 93/42/EEC and is invasive or comes into contact with the human body.

**Revision information:**

Revision Changes:

Remark (phrase) information was added.

Kit: Component document group number(s) information was modified.

Section 01: 1.3. Details of the supplier of the safety data sheet heading information was modified.

Section 2: Contains heading information was deleted.

Section 2: Safety phrases heading information was deleted.

Section 1: Product identification numbers heading information was deleted.

Section 1: Product identification numbers information was deleted.

Section 2: Risk phrases heading information was deleted.

Section 15: Symbol information information was deleted.

Kit label ingredient disclosure information information was deleted.

Section 14: Transportation classification information was added.

Section 2: Notes on labelling heading information was added.

Copyright information was modified.

Telephone header information was modified.

Company Telephone information was modified.

Section 1: Identified uses header information was added.

Section 1: Restrictions on use information information was added.

Section 1: Restrictions on use header information was added.

Section 2: 2.2 & 2.3. CLP REGULATION heading information was added.

Section 02: EU DPD 'Not applicable' text information was added.

Section 02: EU CLP 'Not applicable' text information was added.

Label: Graphic information was deleted.

Section 02: Graphic information information was deleted.



## Safety Data Sheet

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|                                                         |            |                         |            |
|---------------------------------------------------------|------------|-------------------------|------------|
| <b>Document group:</b>                                  | 16-2742-1  | <b>Version number:</b>  | 9.00       |
| <b>Revision date:</b>                                   | 01/05/2015 | <b>Supersedes date:</b> | 08/01/2013 |
| <b>Transportation version number:</b> 1.00 (08/01/2013) |            |                         |            |

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

3M™ ESPE™ Impregum™ Penta™ Soft HB Catalyst

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Dental Product

##### Restrictions on Use

For use only by dental professionals

#### 1.3. Details of the supplier of the safety data sheet

**Address:** 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.  
**Telephone:** +44 (0)1344 858 000  
**E Mail:** tox.uk@mmm.com  
**Website:** www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

### SECTION 2: Hazard identification

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

CLP REGULATION (EC) No 1272/2008

##### CLASSIFICATION:

This product is a medical device as defined in Directive 93/42/EEC (MDD), which is invasive or used in direct physical contact with the human body and therefore is exempt from the requirements of classification and labelling according to Regulation (EC) No. 1272/2008 (CLP; Article 1, paragraph 5).

##### Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

##### Indication of danger

Dangerous for the environment; N; R51/53

For full text of R phrases, see Section 16.

**2.2. Label elements****CLP REGULATION (EC) No 1272/2008**

Not applicable

**Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive**

Not applicable

Dangerous  
for the  
environment**Notes on labelling**

This product is exempt from labelling per Directive 1999/45/EC as it is defined as a medical device according to Directive 93/42/EEC and is invasive or comes into contact with the human body.

**2.3. Other hazards**

For information on hazards and safe use, please consider the corresponding sections of this document.

**SECTION 3: Composition/information on ingredients**

| <b>Ingredient</b>                                                                 | <b>CAS Nbr</b> | <b>EU Inventory</b> | <b>% by Wt</b> | <b>Classification</b>                                                       |
|-----------------------------------------------------------------------------------|----------------|---------------------|----------------|-----------------------------------------------------------------------------|
| Tributyl o-acetyl citrate                                                         | 77-90-7        | EINECS 201-067-0    | 35 - 45        | N:R51/53 (Self Classified)<br><br>Aquatic Chronic 2, H411 (Self Classified) |
| Silanameine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | 68909-20-6     | EINECS 272-697-1    | 20 - 30        |                                                                             |
| Sulphonium salt                                                                   | 72140-65-9     | EINECS 276-380-9    | 15 - 25        | Eye Irrit. 2, H319 (Self Classified)                                        |
| Cristobalite                                                                      | 14464-46-1     | EINECS 238-455-4    | 1 - 10         | Xn:R48/20 (Self Classified)<br><br>STOT RE 1, H372 (Self Classified)        |
| Kieselguhr, soda ash flux-calcined                                                | 68855-54-9     | EINECS 272-489-0    | 1 - 10         |                                                                             |
| Polyethylene-polypropylene glycol                                                 | 9003-11-6      |                     | 1 - 5          |                                                                             |

Please see section 16 for the full text of any R phrases and H statements referred to in this section

Please refer to section 15 for the any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

**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. Extinguishing media**

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

**5.2. Special hazards arising from the substance or mixture**

None inherent in this product.

**Hazardous Decomposition or By-Products****Substance**

Carbon monoxide.

Carbon dioxide.

Irritant vapours or gases.

**Condition**

During combustion.

During combustion.

During combustion.

**5.3. Advice for fire-fighters**

No special protective actions for fire-fighters are anticipated.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Ventilate the area with fresh air. 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.

**6.4. Reference to other sections**

Refer to Section 8 and Section 13 for more information

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid prolonged or repeated skin contact. Avoid breathing dust/fume/gas/mist/vapours/spray. 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.) Do not get in eyes.

**7.2. Conditions for safe storage including any incompatibilities**

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents.

**7.3. Specific end use(s)**

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

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

**Biological limit values**

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

### 8.2. Exposure controls

**8.2.1. Engineering controls**

Use in a well-ventilated area.

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

**Eye/face protection**

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

Safety glasses with side shields.

**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                                 |
| Appearance/Odour            | Dark red colour, slightly acrid odour |
| Odour threshold             | No data available.                    |
| pH                          | No data available.                    |
| Boiling point/boiling range | Not applicable.                       |
| Melting point               | No data available.                    |
| Flammability (solid, gas)   | Not classified                        |
| Explosive properties        | Not classified                        |
| Oxidising properties        | Not classified                        |
| Flash point                 | No flash point                        |

|                                        |                              |
|----------------------------------------|------------------------------|
| Autoignition temperature               | No data available.           |
| Flammable Limits(LEL)                  | Not applicable.              |
| Flammable Limits(UEL)                  | Not applicable.              |
| Vapour pressure                        | Not applicable.              |
| Relative density                       | 1.1 - 1.4 [Ref Std: WATER=1] |
| Water solubility                       | Negligible                   |
| Solubility- non-water                  | No data available.           |
| Partition coefficient: n-octanol/water | No data available.           |
| Evaporation rate                       | Not applicable.              |
| Vapour density                         | Not applicable.              |
| Decomposition temperature              | No data available.           |
| Viscosity                              | No data available.           |

#### 9.2. Other information

|                                             |                 |
|---------------------------------------------|-----------------|
| Volatile organic compounds (VOC)            | Not applicable. |
| Percent volatile                            | Not applicable. |
| VOC less H <sub>2</sub> O & exempt solvents | Not applicable. |

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

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

#### 10.2 Chemical stability

Stable.

#### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

#### 10.4 Conditions to avoid

Heat.

#### 10.5 Incompatible materials

Strong acids.

Strong bases.

Strong oxidising agents.

#### 10.6 Hazardous decomposition products

##### Substance

None known.

##### Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

### SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

#### 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 localised redness, swelling, itching, and dryness.

#### Eye contact

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

#### Ingestion

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

#### Additional Health Effects:

#### Single exposure may cause target organ effects:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

#### 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 |
| Tributyl o-acetylacrylate                                                         | Dermal                         | Professional judgement | LD50 estimated to be > 5,000 mg/kg             |
| Tributyl o-acetylacrylate                                                         | Ingestion                      | Rat                    | LD50 > 25,000 mg/kg                            |
| Silaneamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Dermal                         | Rabbit                 | LD50 > 5,000 mg/kg                             |
| Silaneamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Inhalation-Dust/Mist (4 hours) | Rat                    | LC50 > 0.691 mg/l                              |
| Silaneamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Ingestion                      | Rat                    | LD50 > 5,110 mg/kg                             |
| Sulphonium salt                                                                   | Dermal                         | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg       |
| Sulphonium salt                                                                   | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                             |
| Cristobalite                                                                      | Dermal                         |                        | LD50 estimated to be > 5,000 mg/kg             |
| Cristobalite                                                                      | Ingestion                      |                        | LD50 estimated to be > 5,000 mg/kg             |
| Kieselguhr, soda ash flux-calcined                                                | Dermal                         | Rabbit                 | LD50 > 5,000 mg/kg                             |
| Kieselguhr, soda ash flux-calcined                                                | Inhalation-Dust/Mist (4 hours) | Rat                    | LC50 > 0.691 mg/l                              |
| Kieselguhr, soda ash flux-calcined                                                | Ingestion                      | Rat                    | LD50 > 5,110 mg/kg                             |
| Polyethylene-polypropylene glycol                                                 | Dermal                         | Professional judgement | LD50 estimated to be > 5,000 mg/kg             |



**3M™ ESPE™ Impregum™ Penta™ Soft HB Catalyst**

|                                   |           |     |                  |
|-----------------------------------|-----------|-----|------------------|
|                                   |           | nt  |                  |
| Polyethylene-polypropylene glycol | Ingestion | Rat | LD50 5,700 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                                                                             | Species                | Value                     |
|----------------------------------------------------------------------------------|------------------------|---------------------------|
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Rabbit                 | No significant irritation |
| Sulphonium salt                                                                  | Rabbit                 | Mild irritant             |
| Cristobalite                                                                     | Professional judgement | No significant irritation |
| Kieselguhr, soda ash flux-calcined                                               | Rabbit                 | No significant irritation |

**Serious Eye Damage/Irritation**

| Name                                                                             | Species                | Value                     |
|----------------------------------------------------------------------------------|------------------------|---------------------------|
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Rabbit                 | No significant irritation |
| Sulphonium salt                                                                  | similar health hazards | Moderate irritant         |
| Kieselguhr, soda ash flux-calcined                                               | Rabbit                 | No significant irritation |

**Skin Sensitisation**

| Name                                                                             | Species          | Value           |
|----------------------------------------------------------------------------------|------------------|-----------------|
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Human and animal | Not sensitizing |
| Kieselguhr, soda ash flux-calcined                                               | Human and animal | Not sensitizing |

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

| Name                                                                             | Route    | Value                                                                        |
|----------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------|
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | In Vitro | Not mutagenic                                                                |
| Sulphonium salt                                                                  | In Vitro | Not mutagenic                                                                |
| 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 |
| Kieselguhr, soda ash flux-calcined                                               | In Vitro | Not mutagenic                                                                |

**Carcinogenicity**

| Name                                                                             | Route          | Species          | Value                                                                        |
|----------------------------------------------------------------------------------|----------------|------------------|------------------------------------------------------------------------------|
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Not specified. | Mouse            | Some positive data exist, but the data are not sufficient for classification |
| Cristobalite                                                                     | Inhalation     | Human and animal | Carcinogenic.                                                                |
| Kieselguhr, soda ash flux-calcined                                               | Not specified. | Mouse            | Some positive data exist, but the data are not sufficient for classification |

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

| Name                           | Route     | Value                            | Species | Test result | Exposure Duration |
|--------------------------------|-----------|----------------------------------|---------|-------------|-------------------|
| Silanamine, 1,1,1-trimethyl-N- | Ingestion | Not toxic to female reproduction | Rat     | NOAEL 509   | 1 generation      |

**3M™ ESPET™ Impregum™ Penta™ Soft HB Catalyst**

|                                                                                  |           |                                  |     |                       |                      |
|----------------------------------------------------------------------------------|-----------|----------------------------------|-----|-----------------------|----------------------|
| (trimethylsilyl)-, hydrolysis products with silica                               |           |                                  |     | mg/kg/day             |                      |
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Ingestion | Not toxic to male reproduction   | Rat | NOAEL 497 mg/kg/day   | 1 generation         |
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Ingestion | Not toxic to development         | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |
| Kieselguhr, soda ash flux-calcined                                               | Ingestion | Not toxic to female reproduction | Rat | NOAEL 509 mg/kg/day   | 1 generation         |
| Kieselguhr, soda ash flux-calcined                                               | Ingestion | Not toxic to male reproduction   | Rat | NOAEL 497 mg/kg/day   | 1 generation         |
| Kieselguhr, soda ash flux-calcined                                               | Ingestion | Not toxic to development         | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |

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

| Name            | Route     | Target Organ(s)                   | Value                             | Species | Test result       | Exposure Duration |
|-----------------|-----------|-----------------------------------|-----------------------------------|---------|-------------------|-------------------|
| Sulphonium salt | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Rat     | LOAEL 2,000 mg/kg | not applicable    |

**Specific Target Organ Toxicity - repeated exposure**

| Name                                                                             | Route      | Target Organ(s)                | Value                                                          | Species | Test result         | Exposure Duration     |
|----------------------------------------------------------------------------------|------------|--------------------------------|----------------------------------------------------------------|---------|---------------------|-----------------------|
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | Inhalation | respiratory system   silicosis | All data are negative                                          | Human   | NOAEL Not available | occupational exposure |
| Cristobalite                                                                     | Inhalation | silicosis                      | Causes damage to organs through prolonged or repeated exposure | Human   | NOAEL Not available | occupational exposure |
| Kieselguhr, soda ash flux-calcined                                               | Inhalation | respiratory system   silicosis | All data are negative                                          | Human   | NOAEL Not available | occupational exposure |

**Aspiration Hazard**

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

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

**SECTION 12: Ecological information**

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

**12.1. Toxicity**

No product test data available.

| Material                   | CAS Nbr    | Organism        | Type                                                  | Exposure | Test endpoint | Test result |
|----------------------------|------------|-----------------|-------------------------------------------------------|----------|---------------|-------------|
| Sulphonium salt            | 72140-65-9 |                 | Data not available or insufficient for classification |          |               |             |
| Polyethylene-polypropylene | 9003-11-6  | Atlantic Salmon | Experimental                                          | 96 hours | LC50          | >1,000 mg/l |

|                                                                                  |            |                   |                                                       |          |      |           |
|----------------------------------------------------------------------------------|------------|-------------------|-------------------------------------------------------|----------|------|-----------|
| glycol                                                                           |            |                   |                                                       |          |      |           |
| Polyethylene-polypropylene glycol                                                | 9003-11-6  | Inland Silverside | Experimental                                          | 96 hours | LC50 | 650 mg/l  |
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | 68909-20-6 | Algae             | Estimated                                             | 72 hours | EC50 | >100 mg/l |
| Tributyl o-acetylcitrate                                                         | 77-90-7    | Water flea        | Experimental                                          | 48 hours | EC50 | 7.82 mg/l |
| Cristobalite                                                                     | 14464-46-1 |                   | Data not available or insufficient for classification |          |      |           |
| Kieselguhr, soda ash flux-calcined                                               | 68855-54-9 |                   | Data not available or insufficient for classification |          |      |           |

## 12.2. Persistence and degradability

| Material                                                                         | CAS Nbr    | Test type                                             | Duration | Study Type                    | Test result      | Protocol      |
|----------------------------------------------------------------------------------|------------|-------------------------------------------------------|----------|-------------------------------|------------------|---------------|
| Sulphonium salt                                                                  | 72140-65-9 | 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           |
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | 68909-20-6 | Data not available or insufficient for classification | N/A      | N/A                           | N/A              | N/A           |
| Tributyl o-acetylcitrate                                                         | 77-90-7    | Estimated Photolysis                                  |          | Photolytic half-life (in air) | 2.1 days (t 1/2) | Other methods |
| Tributyl o-acetylcitrate                                                         | 77-90-7    | Experimental Biodegradation                           | 28 days  | BOD                           | 48 % weight      | Other methods |
| Cristobalite                                                                     | 14464-46-1 | Data not available or insufficient for classification | N/A      | N/A                           | N/A              | N/A           |
| Kieselguhr, soda ash flux-calcined                                               | 68855-54-9 | Data not available or insufficient for classification | N/A      | N/A                           | N/A              | N/A           |

## 12.3 : Bioaccumulative potential

| Material                                                                         | CAS Nbr    | Test type                                             | Duration | Study Type             | Test result | Protocol                           |
|----------------------------------------------------------------------------------|------------|-------------------------------------------------------|----------|------------------------|-------------|------------------------------------|
| Sulphonium salt                                                                  | 72140-65-9 | 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                                |
| Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica | 68909-20-6 | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                                |
| Tributyl o-acetylcitrate                                                         | 77-90-7    | Estimated Bioconcentration                            |          | Bioaccumulation factor | 5.1         | Estimated: Bioconcentration factor |
| Cristobalite                                                                     | 14464-46-1 | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                                |
| Kieselguhr, soda ash flux-calcined                                               | 68855-54-9 | 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. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

#### 12.6. Other adverse effects

No information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Incinerate in a permitted waste incineration facility.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

#### EU waste code (product as sold)

180106\* Chemicals consisting of or containing dangerous substances.

### SECTION 14: Transportation information

ADR/IMDG/IATA: Not restricted for transport.

## SECTION 15: Regulatory information

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

#### Carcinogenicity

Ingredient  
Cristobalite

CAS Nbr  
14464-46-1

Classification  
Grp. 1: Carcinogenic to  
humans

Regulation  
International Agency  
for Research on Cancer

#### Global inventory status

Contact 3M for more information.

### 15.2. Chemical Safety Assessment

Not applicable

## SECTION 16: Other information

### List of relevant H statements

|      |                                                                 |
|------|-----------------------------------------------------------------|
| H319 | Causes serious eye irritation.                                  |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects.                |

### List of relevant R-phrases

|        |                                                                                             |
|--------|---------------------------------------------------------------------------------------------|
| R48/20 | Harmful: danger of serious damage to health by prolonged exposure through inhalation.       |
| R51/53 | Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. |

### Revision information:

#### Revision Changes:

Section 01: 1.3. Details of the supplier of the safety data sheet heading information was modified.  
 Section 16: List of relevant R phrase information information was modified.  
 Section 3: Composition/ Information of ingredients table information was modified.  
 Section 9: Solubility in water text information was modified.  
 Section 12: Component ecotoxicity information information was modified.  
 Section 12: Persistence and Degradability information information was modified.  
 Section 10: Materials to avoid physical property information was modified.  
 Section 12: Bioaccumulative potential information information was modified.  
 Section 2: Other hazards phrase information was modified.  
 Copyright information was modified.  
 Label: CLP Classification information was modified.  
 Telephone header information was modified.  
 Company Telephone information was modified.  
 Section 11: Acute Toxicity table information was modified.  
 Section 11: Carcinogenicity Table information was modified.  
 Section 11: Serious Eye Damage/Irritation Table information was modified.  
 Section 11: Germ Cell Mutagenicity Table information was modified.  
 Section 11: Additional Health Effects heading information was modified.  
 Section 11: Skin Sensitization Table information was modified.  
 Section 11: Reproductive Toxicity Table information was modified.  
 Section 11: Skin Corrosion/Irritation Table information was modified.  
 Section 11: Target Organs - Repeated Table information was modified.  
 Section 11: Target Organs - Single Table information was modified.

Section 11: Health Effects - Skin information information was modified.  
Section 11: Health Effects - Ingestion information information was modified.  
Section 5: Hazardous combustion products table information was modified.  
Section 5: Fire - Extinguishing media information information was modified.  
Section 5: Fire - Advice for fire fighters information information was modified.  
Section 6: Accidental release personal information information was modified.  
Section 6: Accidental release clean-up information information was modified.  
Section 7: Precautions safe handling information information was modified.  
Section 7: Conditions safe storage information was modified.  
Section 8: Appropriate Engineering controls information information was modified.  
Section 8: Personal Protection - Eye information information was modified.  
Section 8: Personal Protection - Skin/hand information information was modified.  
Section 13: 13.1. Waste disposal note information was modified.  
Section 13: Standard Phrase Category Waste GHS information was modified.  
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.  
Section 2: Indication of danger heading information was added.  
Section 2: Indication of danger information information was added.  
Section 8: Respiratory protection information information was added.  
Section 14: Transportation classification information was added.  
Section 8: Occupational exposure limit table information was added.  
Section 11: Carcinogenicity heading information was added.  
Section 11: Cancer Hazards information information was added.  
Section 1: Restrictions on use information information was added.  
Section 1: Restrictions on use header information was added.  
Section 9: Odour Threshold information was added.  
Section 9: Solubility (non-water) information was added.  
Section 09: Decomposition Temperature information was added.  
Section 11: Single exposure may cause target organ effects heading information was added.  
Section 11: Single exposure may cause standard phrases information was added.  
Section 02: EU DPD 'Not applicable' text information was added.  
Section 02: EU CLP 'Not applicable' text information was added.  
Section 10: Hazardous decomposition products during combustion text information was added.  
Section 11: Disclosed components not in tables text information was added.  
Section 12: Classification Warning information was added.  
Section 11: Classification disclaimer information was added.  
Section 11: Aspiration Hazard text information was added.  
Section 8: 8.1.1 Biological limit values table heading information was added.  
Section 8: BLV information was added.  
Section 2: R phrase reference information was added.  
Label: Graphic information was added.  
Label: Graphic Text information was added.  
Section 11: Respiratory Sensitization text information was added.  
Section 11: Skin Sensitization table - Name heading information was added.  
Section 11: Skin Sensitization table - Species heading information was added.  
Section 11: Skin Sensitization table - Value heading information was added.  
Section 11: Serious Eye Damage/Irritation table - Name heading information was added.  
Section 11: Serious Eye Damage/Irritation table - Species heading information was added.  
Section 11: Serious Eye Damage/Irritation table - Value heading information was added.  
Section 11: Skin Corrosion/Irritation table - Name heading information was added.  
Section 11: Skin Corrosion/Irritation table - Species heading information was added.  
Section 11: Skin Corrosion/Irritation table - Value heading information was added.  
Section 11: Germ Cell Mutagenicity table - Name heading information was added.  
Section 11: Germ Cell Mutagenicity table - Route heading information was added.  
Section 11: Germ Cell Mutagenicity table - Value heading information was added.  
Section 11: Specific Target Organ Toxicity - repeated exposure table - Name heading information was added.

Section 11: Specific Target Organ Toxicity - repeated exposure table - Route heading information was added.  
 Section 11: Specific Target Organ Toxicity - repeated exposure table - Target Organ(s) heading information was added.  
 Section 11: Specific Target Organ Toxicity - repeated exposure table - Value heading information was added.  
 Section 11: Specific Target Organ Toxicity - repeated exposure table - Species heading information was added.  
 Section 11: Specific Target Organ Toxicity - repeated exposure table - Test Result heading information was added.  
 Section 11: Specific Target Organ Toxicity - repeated exposure table - Exposure Duration heading information was added.  
 Section 11: Specific Target Organ Toxicity - single exposure table - Name heading information was added.  
 Section 11: Specific Target Organ Toxicity - single exposure table - Route heading information was added.  
 Section 11: Specific Target Organ Toxicity - single exposure table - Target Organ(s) heading information was added.  
 Section 11: Specific Target Organ Toxicity - single exposure table - Value heading information was added.  
 Section 11: Specific Target Organ Toxicity - single exposure table - Species heading information was added.  
 Section 11: Specific Target Organ Toxicity - single exposure table - Test Result heading information was added.  
 Section 11: Specific Target Organ Toxicity - single exposure table - Exposure Duration heading information was added.  
 Section 11: Reproductive and/or Developmental Effects table - Name heading information was added.  
 Section 11: Reproductive and/or Developmental Effects table - Route heading information was added.  
 Section 11: Reproductive and/or Developmental Effects table - Value heading information was added.  
 Section 11: Reproductive and/or Developmental Effects table - Species heading information was added.  
 Section 11: Reproductive and/or Developmental Effects table - Test Result heading information was added.  
 Section 11: Reproductive and/or Developmental Effects text information was added.  
 Section 11: Carcinogenicity table - Name heading information was added.  
 Section 11: Carcinogenicity table - Route heading information was added.  
 Section 11: Carcinogenicity table - Species heading information was added.  
 Section 11: Carcinogenicity table - Value heading information was added.  
 Section 8: Eye/face protection text information was deleted.  
 Section 2: Contains heading information was deleted.  
 Section 2: Safety phrases heading information was deleted.  
 Section 2: Risk phrases heading information was deleted.  
 Section 15: Symbol information information was deleted.  
 Section 2: Label ingredient information information was deleted.  
 Section 12: Acute aquatic hazard information information was deleted.  
 Section 12: Chronic aquatic hazard heading information was deleted.  
 Section 12: Acute aquatic hazard heading information was deleted.  
 Section 12: Chronic aquatic hazard information information was deleted.  
 Section 8: OEL table agency column heading information was deleted.  
 Section 8: OEL table limit type column heading information was deleted.  
 OEL Ceiling Heading information was deleted.  
 Section 8: Occupational exposure limit table information was deleted.  
 Section 8: OEL table Ingredient column heading information was deleted.  
 Section 8: OEL table Additional Comments column heading information was deleted.  
 OEL Reg Agency Desc information was deleted.  
 Section 8: TWA key information was deleted.  
 Section 8: STEL key information was deleted.  
 Section 8: mg/m<sup>3</sup> key information was deleted.  
 Section 8: ppm key information was deleted.  
 Section 8: OEL table CAS No Column heading information was deleted.  
 Section 11: Aspiration Hazard Table information was deleted.  
 Section 11: Classification disclaimer information was deleted.  
 Section 11: Exposure Duration table heading information was deleted.  
 Section 11: Respiratory Sensitization Table information was deleted.  
 Section 11: Test Result table heading information was deleted.  
 Section 11: Health Effects - Other information information was deleted.  
 Section 12: Classification Warning information was deleted.  
 Section 8: Personal Protection - Respiratory Information information was deleted.  
 Section 2.1: Classification information information was deleted.  
 Risk phrase - None information was deleted.  
 Label: Graphic information was deleted.



Section 02: Graphic information information was deleted.

**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 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.

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## Safety Data Sheet

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|---------------------------------------|-------------------|-------------------------|------------|
| <b>Document group:</b>                | 16-2740-5         | <b>Version number:</b>  | 9.00       |
| <b>Revision date:</b>                 | 18/10/2016        | <b>Supersedes date:</b> | 01/05/2015 |
| <b>Transportation version number:</b> | 1.00 (08/01/2013) |                         |            |

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

3M™ ESPE™ Impregum™ Penta™ Soft Base Paste

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Dental Product

##### Restrictions on Use

For use only by dental professionals

#### 1.3. Details of the supplier of the safety data sheet

**Address:** 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.  
**Telephone:** +44 (0)1344 858 000  
**E Mail:** tox.uk@mmm.com  
**Website:** www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

### SECTION 2: Hazard identification

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

CLP REGULATION (EC) No 1272/2008

This product is a medical device as defined in Directive 93/42/EEC (MDD), which is invasive or used in direct physical contact with the human body, and therefore is exempt from the requirements of classification and labelling according to Regulation (EC) No. 1272/2008 (CLP; Article 1, paragraph 5). Although not required, the classification and label information, as applicable, is provided below.

##### CLASSIFICATION:

Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319

Skin Sensitization, Category 1A - Skin Sens. 1A; H317

Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400

Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

## 2.2. Label elements

CLP REGULATION (EC) No 1272/2008

### SIGNAL WORD

WARNING.

### Symbols:

GHS07 (Exclamation mark) | GHS09 (Environment) |

### Pictograms



### Ingredients:

Ingredient

1-Dodecylimidazole

Mentha arvensis, ext.

CAS Nbr

4303-67-7

90063-97-1

% by Wt

< 0.7

< 0.2

### HAZARD STATEMENTS:

H319

Causes serious eye irritation.

H317

May cause an allergic skin reaction.

H400

Very toxic to aquatic life.

H411

Toxic to aquatic life with long lasting effects.

### PRECAUTIONARY STATEMENTS

#### Prevention:

P280E

Wear protective gloves.

P273

Avoid release to the environment.

#### Response:

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333 + P313

If skin irritation or rash occurs: Get medical advice/attention.

#### Disposal:

P501

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

## 2.3. Other hazards

For information on hazards and safe use, please consider the corresponding sections of this document.

## SECTION 3: Composition/information on ingredients

| Ingredient                                | CAS Nbr     | EU Inventory | % by Wt | Classification           |
|-------------------------------------------|-------------|--------------|---------|--------------------------|
| Furan, tetrahydro-, polymer with oxirane, | 110531-92-5 |              | 50 - 60 | Eye Irrit. 2, H319 (Self |

| bis[[3-(1-aziridiny)butyl]carbamate]                     |            |           |         | Classified)                                                                                                                              |
|----------------------------------------------------------|------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------|
| Glycerides, C14-18                                       | 67701-27-3 | 266-945-8 | 10 - 20 | Substance not classified as hazardous                                                                                                    |
| Oxirane, polymer with tetrahydrofuran diacetate          | 91825-26-2 |           | 10 - 20 | Substance not classified as hazardous                                                                                                    |
| Benzene, methylbis(phenylmethyl)-                        | 26898-17-9 | 248-097-0 | 5 - 10  | Aquatic Chronic 4, H413 (Self Classified)                                                                                                |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | 68855-54-9 | 272-489-0 | 1 - 10  | STOT RE 2, H373 (Self Classified)                                                                                                        |
| 1-Dodecylimidazole (REACH Reg. No.:01-2120068170-65)     | 4303-67-7  | 224-314-4 | < 0.7   | Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1A, H317; Aquatic Acute 1, H400,M=100; Aquatic Chronic 1, H410,M=10 (Self Classified) |
| Mentha arvensis, ext.                                    | 90063-97-1 | 290-058-5 | < 0.2   | Aquatic Chronic 2, H411 (Vendor)<br>Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1B, H317 (Self Classified)                        |

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

## 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

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. Extinguishing media

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

### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

#### Hazardous Decomposition or By-Products

##### Substance

Carbon monoxide.  
Carbon dioxide.  
Irritant vapours or gases.

##### Condition

During combustion.  
During combustion.  
During combustion.

#### 5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

### 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 vapours, 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.

#### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

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

#### 7.2. Conditions for safe storage including any incompatibilities

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

#### 7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

### 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 | UK HSC | TWA(as inhalable dust):6<br>mg/m <sup>3</sup> ;TWA(as respirable |                     |

Quartz  
UK HSC : UK Health and Safety Commission  
TWA: Time-Weighted-Average  
STEL: Short Term Exposure Limit  
CEIL: Ceiling

68855-54-9 UK HSC

dust):2.4 mg/m<sup>3</sup>  
TWA(respirable):0.1 mg/m<sup>3</sup>

#### Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Use in a well-ventilated area.

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

##### Eye/face protection

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

##### 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                                       |
| Appearance/Odour                       | paste with different colours and mint odour |
| Odour threshold                        | <i>No data available.</i>                   |
| pH                                     | <i>No data available.</i>                   |
| Boiling point/boiling range            | <i>Not applicable.</i>                      |
| Melting point                          | <i>No data available.</i>                   |
| Flammability (solid, gas)              | Not classified                              |
| Explosive properties                   | Not classified                              |
| Oxidising properties                   | Not classified                              |
| Flash point                            | No flash point                              |
| Autoignition temperature               | <i>No data available.</i>                   |
| Flammable Limits(LEL)                  | <i>Not applicable.</i>                      |
| Flammable Limits(UEL)                  | <i>Not applicable.</i>                      |
| Vapour pressure                        | <i>Not applicable.</i>                      |
| Relative density                       | 1 - 1.2 [Ref Std: WATER=1]                  |
| Water solubility                       | Nil                                         |
| Solubility- non-water                  | <i>No data available.</i>                   |
| Partition coefficient: n-octanol/water | <i>No data available.</i>                   |
| Evaporation rate                       | <i>Not applicable.</i>                      |
| Vapour density                         | <i>Not applicable.</i>                      |
| Decomposition temperature              | <i>No data available.</i>                   |
| Viscosity                              | <i>No data available.</i>                   |

## 9.2. Other information

Percent volatile

*Not applicable.*

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

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

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible materials

Strong acids.

Strong bases.

Strong oxidising agents.

### 10.6 Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

### 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

May be harmful in contact with skin. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### Eye contact

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

#### Ingestion

May be harmful if swallowed.

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                                                                 | Dermal                         |                        | No data available; calculated ATE2,000 - 5,000 mg/kg |
| Overall product                                                                 | Ingestion                      |                        | No data available; calculated ATE2,000 - 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                                   |
| Glycerides, C14-18                                                              | Dermal                         | Rabbit                 | LD50 > 2,000 mg/kg                                   |
| Glycerides, C14-18                                                              | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                                   |
| Oxirane, polymer with tetrahydrofuran diacetate                                 | Dermal                         | Professional judgement | LD50 estimated to be > 5,000 mg/kg                   |
| Oxirane, polymer with tetrahydrofuran diacetate                                 | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                                   |
| Benzene, methylbis(phenylmethyl)-                                               | Dermal                         | Rabbit                 | LD50 > 2,000 mg/kg                                   |
| Benzene, methylbis(phenylmethyl)-                                               | 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                                   |
| 1-Dodecylimidazole                                                              | Ingestion                      | Rat                    | LD50 641 mg/kg                                       |
| Mentha arvensis, ext.                                                           | Dermal                         | Rabbit                 | LD50 > 5,000 mg/kg                                   |
| Mentha arvensis, ext.                                                           | Ingestion                      | Rat                    | LD50 1,240 mg/kg                                     |

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

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

#### Serious Eye Damage/Irritation

| Name                                                                            | Species       | Value             |
|---------------------------------------------------------------------------------|---------------|-------------------|
| Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate] | Rabbit        | Moderate irritant |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%)                        | Rabbit        | Mild irritant     |
| 1-Dodecylimidazole                                                              | In vitro data | Severe irritant   |
| Mentha arvensis, ext.                                                           | In vitro      | Severe irritant   |

data

**Skin Sensitisation**

| Name                                                                            | Species    | Value           |
|---------------------------------------------------------------------------------|------------|-----------------|
| Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate] | Guinea pig | Not sensitising |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%)                        | Mouse      | Not sensitising |
| 1-Dodecylimidazole                                                              | Mouse      | Sensitising     |
| Mentha arvensis, ext.                                                           | Guinea pig | Sensitising     |

**Respiratory Sensitisation**

For the component/components, either no data is currently available or the data is 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                                                                |
| Oxirane, polymer with tetrahydrofuran diacetate                                 | 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 |
| 1-Dodecylimidazole                                                              | In Vitro | Not mutagenic                                                                |

**Carcinogenicity**

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

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

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

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

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

**Specific Target Organ Toxicity - repeated exposure**

| Name                                                     | Route      | Target Organ(s)                                     | Value                                                          | Species | Test result           | Exposure Duration     |
|----------------------------------------------------------|------------|-----------------------------------------------------|----------------------------------------------------------------|---------|-----------------------|-----------------------|
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | Inhalation | silicosis                                           | Causes damage to organs through prolonged or repeated exposure | Human   | NOAEL Not available   | occupational exposure |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%) | Ingestion  | hematopoietic system   eyes   kidney and/or bladder | All data are negative                                          | Rat     | NOAEL 3,738 mg/kg/day | 90 days               |

**Aspiration Hazard**

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

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

**SECTION 12: Ecological information**



The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

### 12.1. Toxicity

No product test data available.

| Material                                                                        | CAS Nbr     | Organism    | Type                                                  | Exposure | Test endpoint            | Test result  |
|---------------------------------------------------------------------------------|-------------|-------------|-------------------------------------------------------|----------|--------------------------|--------------|
| Mentha arvensis, ext.                                                           | 90063-97-1  |             | Data not available or insufficient for classification |          |                          |              |
| Flux calcined diatomaceous earth (cristobalite 1 - <10%)                        | 68855-54-9  |             | Data not available or insufficient for classification |          |                          |              |
| Oxirane, polymer with tetrahydrofuran diacetate                                 | 91825-26-2  |             | Data not available or insufficient for classification |          |                          |              |
| 1-Dodecylimidazole                                                              | 4303-67-7   | Water flea  | Experimental                                          | 48 hours | EC50                     | >100 mg/l    |
| 1-Dodecylimidazole                                                              | 4303-67-7   | Green algae | Experimental                                          | 72 hours | Effect Concentration 10% | 0.0021 mg/l  |
| 1-Dodecylimidazole                                                              | 4303-67-7   | Green Algae | Experimental                                          | 72 hours | EC50                     | 0.00557 mg/l |
| Benzene, methylbis(phenylmethyl)-                                               | 26898-17-9  | Water flea  | Experimental                                          | 21 days  | NOEC                     | >100 mg/l    |
| Benzene, methylbis(phenylmethyl)-                                               | 26898-17-9  | Zebra Fish  | Experimental                                          | 96 hours | LC50                     | >100 mg/l    |
| Benzene, methylbis(phenylmethyl)-                                               | 26898-17-9  | Water flea  | Experimental                                          | 48 hours | EC50                     | >100 mg/l    |
| Benzene, methylbis(phenylmethyl)-                                               | 26898-17-9  | Diatom      | Experimental                                          | 72 hours | EC50                     | >100 mg/l    |
| Furan, tetrahydro-, polymer with oxirane, bis[[3-(1-aziridinyl)butyl]carbamate] | 110531-92-5 |             | Data not available or insufficient for classification |          |                          |              |
| Glycerides, C14-18                                                              | 67701-27-3  |             | Data not available or insufficient for classification |          |                          |              |

## 12.2. Persistence and degradability

| Material                                                                        | CAS Nbr     | Test type                                             | Duration | Study Type    | Test result   | Protocol                          |
|---------------------------------------------------------------------------------|-------------|-------------------------------------------------------|----------|---------------|---------------|-----------------------------------|
| Benzene, methylbis(phenylmethyl)-                                               | 26898-17-9  | Experimental Biodegradation                           | 28 days  | BOD           | 0 % weight    | OECD 301C - MITI test (I)         |
| 1-Dodecylimidazole                                                              | 4303-67-7   | Experimental Biodegradation                           | 28 days  | CO2 evolution | 2 % weight    | OECD 301B - Modified Sturm or CO2 |
| Glycerides, C14-18                                                              | 67701-27-3  | Estimated Biodegradation                              | 28 days  | BOD           | 92.8 % weight | OECD 301C - MITI test (I)         |
| Flux calcined diatomaceous earth (crystalite 1 - <10%)                          | 68855-54-9  | Data not available or insufficient for classification | N/A      | N/A           | N/A           | N/A                               |
| Mentha arvensis, ext.                                                           | 90063-97-1  | Data not available or insufficient for classification | N/A      | N/A           | N/A           | N/A                               |
| Oxirane, polymer with tetrahydrofuran diacetate                                 | 91825-26-2  | Data not available or insufficient for classification | N/A      | N/A           | N/A           | N/A                               |
| 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                               |

## 12.3 : Bioaccumulative potential

| Material                                        | CAS Nbr    | Test type                                             | Duration | Study Type             | Test result | Protocol                                           |
|-------------------------------------------------|------------|-------------------------------------------------------|----------|------------------------|-------------|----------------------------------------------------|
| 1-Dodecylimidazole                              | 4303-67-7  | Estimated Bioconcentration                            |          | Log Kow                | 5.17        | Estimated: Octanol-water partition coefficient     |
| Glycerides, C14-18                              | 67701-27-3 | Estimated Bioconcentration                            |          | Bioaccumulation factor | 7.44        | Other methods                                      |
| Benzene, methylbis(phenylmethyl)-               | 26898-17-9 | Experimental BCF-Carp                                 | 60 days  | Bioaccumulation factor | 23000       | OECD 305E - Bioaccumulation flow-through fish test |
| Oxirane, polymer with tetrahydrofuran diacetate | 91825-26-2 | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                                                |
| Mentha arvensis, ext.                           | 90063-97-1 | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                                                |
| Flux calcined diatomaceous                      | 68855-54-9 | Data not available or                                 | N/A      | N/A                    | N/A         | N/A                                                |

|                                                                                 |             |                                                       |     |     |     |     |
|---------------------------------------------------------------------------------|-------------|-------------------------------------------------------|-----|-----|-----|-----|
| earth (cristobalite 1 - <10%)                                                   |             | insufficient for classification                       |     |     |     |     |
| 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 |

**12.4. Mobility in soil**

Please contact manufacturer for more details

**12.5. Results of the PBT and vPvB assessment**

No information available at this time, contact manufacturer for more details

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

See Section 11.1 Information on toxicological effects

Dispose of waste product in a permitted industrial waste facility.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

**EU waste code (product as sold)**

180106\* Chemicals consisting of or containing dangerous substances.

**SECTION 14: Transportation information**

ADR/IMDG/IATA: Not restricted for transport.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Global inventory status**

Contact 3M for more information.

**15.2. Chemical Safety Assessment**

Not applicable

**SECTION 16: Other information**

List of relevant H statements

|      |                                                                    |
|------|--------------------------------------------------------------------|
| H302 | Harmful if swallowed.                                              |
| H317 | May cause an allergic skin reaction.                               |
| H319 | Causes serious eye irritation.                                     |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life.                                        |
| H410 | Very toxic to aquatic life with long lasting effects.              |
| H411 | Toxic to aquatic life with long lasting effects.                   |
| H413 | May cause long lasting harmful effects to aquatic life.            |

#### Revision information:

CLP: Ingredient table information was added.  
Section 2: H phrase reference information was added.  
Label: CLP Classification information was added.  
Label: CLP Classification information was modified.  
Label: CLP Environmental Hazard Statements information was added.  
Section 02: Label Elements: CLP Medical Device information was added.  
Label: CLP Precautionary - Disposal information was added.  
Label: CLP Precautionary - Prevention information was added.  
Label: CLP Precautionary - Response information was added.  
Label: Graphic information was added.  
Label: Signal Word information was added.  
Section 2: Other hazards phrase information was modified.  
Remark (phrase) information was deleted.  
Section 3: Composition/ Information of ingredients table information was modified.  
Section 3: Reference to H statement explanation in Section 016 information was added.  
Section 3: Reference to R and H statement explanation in Section 16 information was deleted.  
Section 3: Reference to section 15 for Nota info information was deleted.  
Section 6: Accidental release personal information information was modified.  
Section 8: Occupational exposure limit table information was modified.  
Section 9: Property description for optional properties information was added.  
Section 9: Property description for optional properties information was deleted.  
Section 9: Relative density information information was modified.  
Section 11: Acute Toxicity table information was modified.  
Section 11: Carcinogenicity Table information was modified.  
Section 11: Germ Cell Mutagenicity Table information was modified.  
Section 11: Health Effects - Ingestion information information was modified.  
Section 11: Health Effects - Skin information information was modified.  
Section 11: Reproductive and/or Developmental Effects text information was deleted.  
Section 11: Reproductive Toxicity Table information was deleted.  
Section 11: Serious Eye Damage/Irritation Table information was modified.  
Section 11: Skin Corrosion/Irritation Table information was modified.  
Section 11: Skin Sensitization Table information was modified.  
Section 11: Specific Target Organ Toxicity - single exposure text information was added.  
Section 11: Target Organs - Repeated Table information was modified.  
Section 12: Component ecotoxicity information information was modified.  
Section 12: Persistence and Degradability information information was modified.  
Section 12: Biocumulative potential information information was modified.  
Section 13: Standard Phrase Category Waste GHS information was modified.  
Section 15: Carcinogenicity information information was deleted.  
Section 16: List of relevant R phrase information information was deleted.  
Section 16: List of relevant R-phrases information was deleted.  
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material.  
information was modified.

**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 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.

**3M United Kingdom MSDSs are available at [www.3M.com/uk](http://www.3M.com/uk)**