



Safety Data Sheet

Copyright, 2015, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 18-1479-7 | Version Number: | 4.03 |
| Issue Date: | 04/15/15 | Supersedes Date: | 04/04/08 |

Product identifier

3M™ ESPE™ IMPREGUM PENTA™ SOFT/ IMPREGUM PENTA™ SOFT MB/ IMPREGUM PENTA™ H DUOSOFT/ IMPREGUM PENTA™ SOFT HB PLUS ADHESIVE

ID Number(s):

70-2011-3281-1, 70-2011-3413-0

Recommended use

Dental product, Impression

Restrictions on use

For use only by dental professionals

Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | 3M ESPE Dental Products |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

16-4015-0, 16-2742-1, 16-2740-5

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, 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 evaluate 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 its customers. Due to the remote possibility that 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 USA SDSs are available at www.3M.com



Safety Data Sheet

Copyright, 2015, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-2740-5 | Version Number: | 10.00 |
| Issue Date: | 06/22/15 | Supersedes Date: | 03/06/15 |

SECTION 1: Identification

1.1. Product identifier

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

Product Identification Numbers

BA-ESPE-3173-1, LE-FSFD-3173-1

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impression material

Restrictions on use

For use only by dental professionals

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | 3M ESPE Dental Products |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2B.

Skin Sensitizer: Category 1A.

2.2. Label elements

Signal word

Warning

Symbols

Exclamation mark |

Pictograms**Hazard Statements**

Causes eye irritation.
May cause an allergic skin reaction.

Precautionary Statements**Prevention:**

Wear protective gloves.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

Disposal:

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

2.3. Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|--------------------------|-------------|------------------------|
| POLYETHER | 110531-92-5 | 40 - 60 Trade Secret * |
| FATTY ACID TRIGLYCERIDES | 67701-27-3 | 10 - 30 Trade Secret * |
| POLYMERIC ACETATE | 91825-26-2 | 1 - 20 Trade Secret * |
| DIBENZYL TOLUENE | 26898-17-9 | 1 - 10 Trade Secret * |
| DIATOMACEOUS EARTH | 68855-54-9 | 1 - 10 Trade Secret * |
| CRISTOBALITE | 14464-46-1 | < 2 Trade Secret * |
| 1-DODECYLIMIDAZOLE | 4303-67-7 | < 0.8 Trade Secret * |
| Mentha arvensis, ext. | 90063-97-1 | < 0.5 Trade Secret * |

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

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. Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide
Carbon dioxide
Irritant Vapors or Gases

Condition

During Combustion
During Combustion
During Combustion

5.3. Special protective actions 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 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.

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 oxidizing 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 oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

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

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|-------------------|------------|--------|---|-----------------------------|
| CRISTOBALITE | 14464-46-1 | ACGIH | TWA(respirable fraction):0.025 mg/m ³ | A2: Suspected human carcin. |
| CRISTOBALITE | 14464-46-1 | OSHA | TWA concentration(as total dust):0.15 mg/m ³ ;TWA concentration(respirable):0.05 mg/m ³ (1.2 millions of particles/cu. ft.) | |
| SILICA, AMORPHOUS | 68855-54-9 | OSHA | TWA concentration:0.8 mg/m ³ ;TWA:20 millions of particles/cu. ft. | |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

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

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

| | |
|--|---|
| General Physical Form: | Solid |
| Specific Physical Form: | Paste |
| Odor, Color, Grade: | paste with different colors and mint odor |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>No Data Available</i> |
| Melting point | <i>No Data Available</i> |
| Boiling Point | <i>Not Applicable</i> |
| Flash Point | No flash point |
| Evaporation rate | <i>Not Applicable</i> |
| Flammability (solid, gas) | Not Classified |
| Flammable Limits(LEL) | <i>Not Applicable</i> |
| Flammable Limits(UEL) | <i>Not Applicable</i> |
| Vapor Pressure | <i>Not Applicable</i> |
| Vapor Density | <i>Not Applicable</i> |
| Specific Gravity | 1.0 - 1.2 [<i>Ref Std: WATER=1</i>] |
| Solubility in Water | Nil |
| Solubility- non-water | <i>No Data Available</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |
| Autoignition temperature | <i>No Data Available</i> |
| Decomposition temperature | <i>No Data Available</i> |
| Viscosity | <i>No Data Available</i> |
| Volatile Organic Compounds | <i>Not Applicable</i> |
| Percent volatile | <i>Not Applicable</i> |
| VOC Less H2O & Exempt Solvents | <i>Not Applicable</i> |

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 polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Strong acids

Strong bases

Strong oxidizing 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 labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure. The information below represents toxicological information associated with the individual components of the uncured product. Once properly mixed and/or cured, the product is safe for its intended use.

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 odor; 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 diarrhea.

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.

| Ingredient | CAS No. | Class Description | Regulation |
|--------------------------|------------|--------------------------------|---|
| SILICA, CRYSTAL AIRRESP | 14464-46-1 | Known human carcinogen | National Toxicology Program Carcinogens |
| Generic: GLASS FILAMENTS | 14464-46-1 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| CRISTOBALITE | 14464-46-1 | Grp. 1: Carcinogenic to humans | International Agency for Research on 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 2,000 - 5,000 mg/kg |
| Overall product | Ingestion | | No data available; calculated ATE 2,000 - 5,000 mg/kg |
| POLYETHER | Dermal | Professional judgment | LD50 estimated to be 2,000 - 5,000 mg/kg |
| POLYETHER | Ingestion | Rat | LD50 > 2,000 mg/kg |

| | | | |
|--------------------------|--------------------------------|------------------------|------------------------------------|
| FATTY ACID TRIGLYCERIDES | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| FATTY ACID TRIGLYCERIDES | Ingestion | Rat | LD50 > 2,000 mg/kg |
| POLYMERIC ACETATE | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| POLYMERIC ACETATE | Ingestion | Rat | LD50 > 2,000 mg/kg |
| DIBENZYL TOLUENE | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| DIBENZYL TOLUENE | Ingestion | Rat | LD50 > 10,360 mg/kg |
| DIATOMACEOUS EARTH | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| DIATOMACEOUS EARTH | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| DIATOMACEOUS EARTH | Ingestion | Rat | LD50 > 5,110 mg/kg |
| CRISTOBALITE | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| CRISTOBALITE | Ingestion | | LD50 estimated to be > 5,000 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 |
|-----------------------|------------------------|---------------------------|
| POLYETHER | Rabbit | No significant irritation |
| DIATOMACEOUS EARTH | Rabbit | No significant irritation |
| CRISTOBALITE | Professional judgement | No significant irritation |
| 1-DODECYLIMIDAZOLE | Rabbit | Mild irritant |
| Mentha arvensis, ext. | Rabbit | Mild irritant |

Serious Eye Damage/Irritation

| Name | Species | Value |
|-----------------------|---------------|---------------------------|
| POLYETHER | Rabbit | Moderate irritant |
| DIATOMACEOUS EARTH | Rabbit | No significant irritation |
| 1-DODECYLIMIDAZOLE | In vitro data | Severe irritant |
| Mentha arvensis, ext. | In vitro data | Severe irritant |

Skin Sensitization

| Name | Species | Value |
|-----------------------|------------------|-----------------|
| POLYETHER | Guinea pig | Not sensitizing |
| DIATOMACEOUS EARTH | Human and animal | Not sensitizing |
| 1-DODECYLIMIDAZOLE | Mouse | Sensitizing |
| Mentha arvensis, ext. | Guinea pig | Sensitizing |

Respiratory Sensitization

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

Germ Cell Mutagenicity

| Name | Route | Value |
|--------------------|----------|--|
| POLYETHER | In Vitro | Not mutagenic |
| POLYMERIC ACETATE | In Vitro | Not mutagenic |
| DIATOMACEOUS EARTH | 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 |
| 1-DODECYLIMIDAZOLE | In Vitro | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|--------------------|---------------|------------------|--|
| DIATOMACEOUS EARTH | Not Specified | Mouse | Some positive data exist, but the data are not sufficient for classification |
| CRISTOBALITE | Inhalation | Human and animal | Carcinogenic |

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

| Name | Route | Value | Species | Test Result | Exposure Duration |
|--------------------|-----------|----------------------------------|---------|-----------------------|----------------------|
| DIATOMACEOUS EARTH | Ingestion | Not toxic to female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| DIATOMACEOUS EARTH | Ingestion | Not toxic to male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| DIATOMACEOUS EARTH | Ingestion | Not toxic to 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 |
|--------------------|------------|--------------------------------|--|---------|---------------------|-----------------------|
| DIATOMACEOUS EARTH | 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 |

Aspiration Hazard

For the component/components, either no data are currently available or the data are 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**Ecotoxicological information**

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

Chemical fate information

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

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

This material contains one or more substances not listed on the TSCA Inventory. Commercial use of this material is regulated by the FDA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 1 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-2740-5 | Version Number: | 10.00 |
| Issue Date: | 06/22/15 | Supersedes Date: | 03/06/15 |

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, 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 evaluate 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 its customers. Due to the remote possibility that 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 USA SDSs are available at www.3M.com



Safety Data Sheet

Copyright, 2015, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-2742-1 | Version Number: | 9.00 |
| Issue Date: | 06/19/15 | Supersedes Date: | 10/09/14 |

SECTION 1: Identification

1.1. Product identifier

3M™ ESPE™ Impregum™ Penta™ Soft Catalyst

Product Identification Numbers

CA-ESPE-3173-1, LE-FSFD-3173-8

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impressions

Restrictions on use

For use only by dental professionals

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | 3M ESPE Dental Products |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

2.1. Hazard classification

Serious Eye Damage/Irritation: Category 2B.

2.2. Label elements

Signal word

Warning

Symbols

Not applicable

Pictograms

Not applicable

Hazard Statements

Causes eye irritation.

Precautionary Statements**Prevention:**

Wash thoroughly after handling.

Response:

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

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

2.3. Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|-----------------------------------|------------|------------------------|
| CITRIC ESTER | 77-90-7 | 30 - 50 Trade Secret * |
| SILANE TREATED SILICA | 68909-20-6 | 10 - 30 Trade Secret * |
| SULFONIUM SALT | 72140-65-9 | 10 - 30 Trade Secret * |
| DIATOMACEOUS EARTH | 68855-54-9 | 1 - 20 Trade Secret * |
| POLYETHYLENE-POLYPROPYLENE GLYCOL | 9003-11-6 | 1 - 10 Trade Secret * |
| CRISTOBALITE | 14464-46-1 | < 2 Trade Secret * |

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

No need for first aid is anticipated.

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**

Carbon monoxide
Carbon dioxide
Irritant Vapors or Gases

Condition

During Combustion
During Combustion
During Combustion

5.3. Special protective actions 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 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.

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

Avoid eye contact. 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 oxidizing 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 oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

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

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|-------------------|-------------------|---------------|--------------------------------------|-----------------------------|
| CRISTOBALITE | 14464-46-1 | ACGIH | TWA(respirable fraction):0.025 mg/m3 | A2: Suspected human carcin. |
| CRISTOBALITE | 14464-46-1 | OSHA | TWA concentration(as total | |

| | | | | |
|-------------------|------------|------|--|--|
| | | | dust):0.15 mg/m ³ ;TWA concentration(respirable):0.05 mg/m ³ (1.2 millions of particles/cu. ft.) | |
| SILICA, AMORPHOUS | 68855-54-9 | OSHA | TWA concentration:0.8 mg/m ³ ;TWA:20 millions of particles/cu. ft. | |
| SILICA, AMORPHOUS | 68909-20-6 | OSHA | TWA concentration:0.8 mg/m ³ ;TWA:20 millions of particles/cu. ft. | |

ACGIH : American Conference of Governmental Industrial Hygienists
 AIHA : American Industrial Hygiene Association
 CMRG : Chemical Manufacturer's Recommended Guidelines
 OSHA : United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted-Average
 STEL: Short Term Exposure Limit
 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

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

| | |
|----------------------------------|---------------------------------------|
| General Physical Form: | Solid |
| Specific Physical Form: | Paste |
| Odor, Color, Grade: | Dark red color, slightly acrid odor |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>No Data Available</i> |
| Melting point | <i>No Data Available</i> |
| Boiling Point | <i>Not Applicable</i> |
| Flash Point | No flash point |
| Evaporation rate | <i>Not Applicable</i> |
| Flammability (solid, gas) | Not Classified |
| Flammable Limits(LEL) | <i>Not Applicable</i> |
| Flammable Limits(UEL) | <i>Not Applicable</i> |
| Vapor Pressure | <i>Not Applicable</i> |
| Vapor Density | <i>Not Applicable</i> |
| Specific Gravity | 1.1 - 1.4 [<i>Ref Std: WATER=1</i>] |
| Solubility in Water | Negligible |

| | |
|--|--------------------------|
| Solubility- non-water | <i>No Data Available</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |
| Autoignition temperature | <i>No Data Available</i> |
| Decomposition temperature | <i>No Data Available</i> |
| Viscosity | <i>No Data Available</i> |
| Volatile Organic Compounds | <i>Not Applicable</i> |
| Percent volatile | <i>Not Applicable</i> |
| VOC Less H2O & Exempt Solvents | <i>Not Applicable</i> |

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 polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Strong acids

Strong bases

Strong oxidizing agents

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
|------------------|------------------|

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 labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

The information below represents toxicological information associated with the individual components of the uncured product. Once properly mixed and/or cured, the product is safe for its intended use.

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 odor; however, no adverse health effects are anticipated.

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized 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 diarrhea.

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.

| Ingredient | CAS No. | Class Description | Regulation |
|--------------------------|------------|--------------------------------|---|
| SILICA, CRYSTAL AIRRESP | 14464-46-1 | Known human carcinogen | National Toxicology Program Carcinogens |
| Generic: GLASS FILAMENTS | 14464-46-1 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| CRISTOBALITE | 14464-46-1 | Grp. 1: Carcinogenic to humans | International Agency for Research on 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 |
| CITRIC ESTER | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| CITRIC ESTER | Ingestion | Rat | LD50 > 25,000 mg/kg |
| SILANE TREATED SILICA | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| SILANE TREATED SILICA | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| SILANE TREATED SILICA | Ingestion | Rat | LD50 > 5,110 mg/kg |
| SULFONIUM SALT | Dermal | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg |
| SULFONIUM SALT | Ingestion | Rat | LD50 > 2,000 mg/kg |
| DIATOMACEOUS EARTH | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| DIATOMACEOUS EARTH | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| DIATOMACEOUS EARTH | Ingestion | Rat | LD50 > 5,110 mg/kg |
| POLYETHYLENE-POLYPROPYLENE GLYCOL | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| POLYETHYLENE-POLYPROPYLENE GLYCOL | Ingestion | Rat | LD50 5,700 mg/kg |
| CRISTOBALITE | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| CRISTOBALITE | Ingestion | | LD50 estimated to be > 5,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|-----------------------|-----------------------|---------------------------|
| SILANE TREATED SILICA | Rabbit | No significant irritation |
| SULFONIUM SALT | Rabbit | Mild irritant |
| DIATOMACEOUS EARTH | Rabbit | No significant irritation |
| CRISTOBALITE | Professional judgment | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|-----------------------|------------------------|---------------------------|
| SILANE TREATED SILICA | Rabbit | No significant irritation |
| SULFONIUM SALT | similar health hazards | Moderate irritant |
| DIATOMACEOUS EARTH | Rabbit | No significant irritation |

Skin Sensitization

| Name | Species | Value |
|-----------------------|------------------|-----------------|
| SILANE TREATED SILICA | Human and animal | Not sensitizing |
| DIATOMACEOUS EARTH | Human and animal | Not sensitizing |

Respiratory Sensitization

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

Germ Cell Mutagenicity

| Name | Route | Value |
|-----------------------|----------|--|
| SILANE TREATED SILICA | In Vitro | Not mutagenic |
| SULFONIUM SALT | In Vitro | Not mutagenic |
| DIATOMACEOUS EARTH | 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 |

Carcinogenicity

| Name | Route | Species | Value |
|-----------------------|---------------|------------------|--|
| SILANE TREATED SILICA | Not Specified | Mouse | Some positive data exist, but the data are not sufficient for classification |
| DIATOMACEOUS EARTH | Not Specified | Mouse | Some positive data exist, but the data are not sufficient for classification |
| CRISTOBALITE | Inhalation | Human and animal | Carcinogenic |

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

| Name | Route | Value | Species | Test Result | Exposure Duration |
|-----------------------|-----------|----------------------------------|---------|---------------------|----------------------|
| SILANE TREATED SILICA | Ingestion | Not toxic to female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| SILANE TREATED SILICA | Ingestion | Not toxic to male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| SILANE TREATED SILICA | Ingestion | Not toxic to development | Rat | NOAEL 1,350 | during organogenesis |

| | | | | mg/kg/day | s |
|--------------------|-----------|----------------------------------|-----|-----------------------|----------------------|
| DIATOMACEOUS EARTH | Ingestion | Not toxic to female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| DIATOMACEOUS EARTH | Ingestion | Not toxic to male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| DIATOMACEOUS EARTH | 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 |
|----------------|-----------|-----------------------------------|-----------------------------------|---------|-------------------|-------------------|
| SULFONIUM 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 |
|-----------------------|------------|--------------------------------|--|---------|---------------------|-----------------------|
| SILANE TREATED SILICA | Inhalation | respiratory system silicosis | All data are negative | Human | NOAEL Not available | occupational exposure |
| DIATOMACEOUS EARTH | 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 |

Aspiration Hazard

For the component/components, either no data are currently available or the data are 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**Ecotoxicological information**

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

Chemical fate information

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

SECTION 13: Disposal considerations**13.1. Disposal methods**

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

Dispose of waste product in a permitted industrial waste facility.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

This material contains one or more substances not listed on the TSCA Inventory. Commercial use of this material is regulated by the FDA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 1 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-2742-1 | Version Number: | 9.00 |
| Issue Date: | 06/19/15 | Supersedes Date: | 10/09/14 |

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, 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 evaluate 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 its customers. Due to the remote possibility that 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 USA SDSs are available at www.3M.com



Safety Data Sheet

Copyright, 2014, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-4015-0 | Version Number: | 15.00 |
| Issue Date: | 10/09/14 | Supersedes Date: | 03/02/11 |

SECTION 1: Identification

1.1. Product identifier

30601 POLYETHER ADHESIVE - 17 ML BOTTLE (NA)

Product Identification Numbers

70-2011-0895-1, 70-2011-0997-5

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Used in impressing systems.

Restrictions on use

For use only by dental professionals.

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | 3M ESPE Dental Products |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

2.1. Hazard classification

Flammable Liquid: Category 2.

Serious Eye Damage/Irritation: Category 2A.

Specific Target Organ Toxicity (central nervous system): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark |

Pictograms



Hazard Statements

Highly flammable liquid and vapor.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Precautionary Statements

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only in a well-ventilated area.

Wear protective gloves and eye/face protection.

Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Call a POISON CENTER or doctor/physician if you feel unwell.

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.

Keep container tightly closed.

Disposal:

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

2.3. Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|--|------------|------------------------|
| ETHYL ACETATE | 141-78-6 | 25 - 50 Trade Secret * |
| HEPTANE | 142-82-5 | 25 - 35 Trade Secret * |
| ACETONE | 67-64-1 | 5 - 15 Trade Secret * |
| METHYLCYCLOHEXANE | 108-87-2 | 5 - 10 Trade Secret * |
| FORMALDEHYDE, POLYMER WITH 1,3-BENZENEDIOL AND 4-(1,1-DIMETHYLETHYL)PHENOL | 59633-97-5 | 0 - 5 Trade Secret * |

| | | |
|-----------------|-----------|------------------------|
| POLYCHLOROPRENE | 9010-98-4 | 0 - 5 Trade Secret * |
| CYCLOHEXANE | 110-82-7 | 0 - 0.5 Trade Secret * |
| ZINC OXIDE | 1314-13-2 | 0 - 0.2 Trade Secret * |

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

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:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. Do not induce vomiting. Get immediate 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 flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide
Carbon dioxide
Irritant Vapors or Gases

Condition

During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools.

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

Contain spill. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid prolonged or repeated skin contact. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

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

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|-------------------|------------|--------|---|--------------------------------|
| METHYLCYCLOHEXANE | 108-87-2 | ACGIH | TWA:400 ppm | |
| METHYLCYCLOHEXANE | 108-87-2 | OSHA | TWA:2000 mg/m3(500 ppm) | |
| CYCLOHEXANE | 110-82-7 | ACGIH | TWA:100 ppm | |
| CYCLOHEXANE | 110-82-7 | OSHA | TWA:1050 mg/m3(300 ppm) | |
| ZINC OXIDE | 1314-13-2 | ACGIH | TWA(respirable fraction):2 mg/m3;STEL(respirable fraction):10 mg/m3 | |
| ZINC OXIDE | 1314-13-2 | OSHA | TWA(as fume):5 mg/m3;TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3 | |
| ETHYL ACETATE | 141-78-6 | ACGIH | TWA:400 ppm | |
| ETHYL ACETATE | 141-78-6 | OSHA | TWA:1400 mg/m3(400 ppm) | |
| HEPTANE | 142-82-5 | OSHA | TWA:2000 mg/m3(500 ppm) | |
| HEPTANE | 142-82-5 | ACGIH | TWA:400 ppm;STEL:500 ppm | |
| ACETONE | 67-64-1 | ACGIH | TWA:500 ppm;STEL:750 ppm | A4: Not class. as human carcin |
| ACETONE | 67-64-1 | OSHA | TWA:2400 mg/m3(1000 ppm) | |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

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

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

| | |
|--|---|
| General Physical Form: | Liquid |
| Specific Physical Form: | Liquid |
| Odor, Color, Grade: | Blue in color, characteristic solvent odor. |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>No Data Available</i> |
| Melting point | <i>No Data Available</i> |
| Boiling Point | 133 °F |
| Flash Point | 30 °F [<i>Test Method: Closed Cup</i>] |
| Evaporation rate | Approximately 1 [<i>Ref Std: BUOAC=1</i>] |
| Flammability (solid, gas) | Not Applicable |
| Flammable Limits(LEL) | <i>No Data Available</i> |
| Flammable Limits(UEL) | <i>No Data Available</i> |
| Vapor Pressure | 180 mmHg |
| Vapor Density | 2 - 4 [<i>Ref Std: AIR=1</i>] |
| Density | <i>No Data Available</i> |
| Specific Gravity | 0.8 - 0.9 [<i>Ref Std: WATER=1</i>] |
| Solubility in Water | Moderate |
| Solubility- non-water | <i>No Data Available</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |
| Autoignition temperature | <i>No Data Available</i> |
| Decomposition temperature | <i>No Data Available</i> |
| Viscosity | 40,000 centipoise |
| Volatile Organic Compounds | <i>No Data Available</i> |
| Percent volatile | <i>No Data Available</i> |
| VOC Less H2O & Exempt Solvents | <i>No Data Available</i> |

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

10.5. Incompatible materials

Strong acids
Strong oxidizing agents

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| 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 labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

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:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause target organ effects after inhalation.

Skin Contact:

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

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause target organ effects after ingestion.

Target Organ Effects:

Single exposure may cause:

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

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 |
| HEPTANE | Dermal | Rabbit | LD50 3,000 mg/kg |
| HEPTANE | Inhalation-Vapor (4 hours) | Rat | LC50 103 mg/l |
| HEPTANE | Ingestion | Rat | LD50 > 15,000 mg/kg |
| ETHYL ACETATE | Dermal | Rabbit | LD50 > 18,000 mg/kg |
| ETHYL ACETATE | Inhalation-Vapor (4 hours) | Rat | LC50 70.5 mg/l |
| ETHYL ACETATE | Ingestion | Rat | LD50 5,620 mg/kg |
| ACETONE | Dermal | Rabbit | LD50 > 15,688 mg/kg |
| ACETONE | Inhalation-Vapor (4 hours) | Rat | LC50 76 mg/l |
| ACETONE | Ingestion | Rat | LD50 5,800 mg/kg |
| METHYLCYCLOHEXANE | Inhalation-Vapor (4 hours) | Mouse | LC50 26 mg/l |
| METHYLCYCLOHEXANE | Dermal | Rabbit | LD50 > 86,700 mg/kg |
| METHYLCYCLOHEXANE | Ingestion | Rat | LD50 > 3,200 mg/kg |
| POLYCHLOROPRENE | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| POLYCHLOROPRENE | Ingestion | Rat | LD50 > 20,000 mg/kg |
| CYCLOHEXANE | Dermal | Rat | LD50 > 2,000 mg/kg |
| CYCLOHEXANE | Inhalation-Vapor (4 hours) | Rat | LC50 > 32.9 mg/l |
| CYCLOHEXANE | Ingestion | Rat | LD50 6,200 mg/kg |
| ZINC OXIDE | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| ZINC OXIDE | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5.7 mg/l |
| ZINC OXIDE | Ingestion | Rat | LD50 > 5,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|-------------------|------------------|---------------------------|
| HEPTANE | Human | Mild irritant |
| ETHYL ACETATE | Rabbit | Minimal irritation |
| ACETONE | Mouse | Minimal irritation |
| METHYLCYCLOHEXANE | Rabbit | Minimal irritation |
| POLYCHLOROPRENE | Human | No significant irritation |
| CYCLOHEXANE | Rabbit | Mild irritant |
| ZINC OXIDE | Human and animal | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|-------------------|---------|---------------------------|
| HEPTANE | | Moderate irritant |
| ETHYL ACETATE | Rabbit | Mild irritant |
| ACETONE | Rabbit | Severe irritant |
| METHYLCYCLOHEXANE | Rabbit | Mild irritant |
| POLYCHLOROPRENE | | No significant irritation |
| CYCLOHEXANE | Rabbit | Mild irritant |
| ZINC OXIDE | Rabbit | Mild irritant |

Skin Sensitization

| Name | Species | Value |
|---------------|------------|--|
| ETHYL ACETATE | Guinea pig | Not sensitizing |
| ZINC OXIDE | Guinea pig | Some positive data exist, but the data are not sufficient for classification |

Respiratory Sensitization

| Name | Species | Value |
|------|---------|-------|
|------|---------|-------|

Germ Cell Mutagenicity

| Name | Route | Value |
|---------------|----------|--|
| HEPTANE | In Vitro | Not mutagenic |
| ETHYL ACETATE | In Vitro | Not mutagenic |
| ETHYL ACETATE | In vivo | Not mutagenic |
| ACETONE | In vivo | Not mutagenic |
| ACETONE | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| CYCLOHEXANE | In Vitro | Not mutagenic |
| CYCLOHEXANE | In vivo | Some positive data exist, but the data are not sufficient for classification |
| ZINC OXIDE | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| ZINC OXIDE | In vivo | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|-------------------|---------------|-------------------------|------------------|
| ACETONE | Not Specified | Multiple animal species | Not carcinogenic |
| METHYLCYCLOHEXANE | Inhalation | Multiple animal species | Not carcinogenic |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|-------------|------------|--|---------|------------------------|----------------------|
| ACETONE | Ingestion | Not toxic to female reproduction | Mouse | NOAEL 11,298 mg/kg/day | 13 weeks |
| ACETONE | Ingestion | Some positive male reproductive data exist, but the data are not sufficient for classification | Rat | NOAEL 1,700 mg/kg/day | 13 weeks |
| ACETONE | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification | Rat | NOAEL 5.2 mg/l | during organogenesis |
| CYCLOHEXANE | Inhalation | Not toxic to female reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| CYCLOHEXANE | Inhalation | Not toxic to male reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| CYCLOHEXANE | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification | Rat | NOAEL 6.9 mg/l | 2 generation |

30601 POLYETHER ADHESIVE - 17 ML BOTTLE (NA) 10/09/14

| | | | | | |
|------------|-----------|---|-------------------------|---------------------|--------------------------------|
| ZINC OXIDE | Ingestion | Some positive reproductive/developmental data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL 125 mg/kg/day | prematuring & during gestation |
|------------|-----------|---|-------------------------|---------------------|--------------------------------|

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-------------------|------------|-----------------------------------|--|-------------------------|---------------------|------------------------|
| HEPTANE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| HEPTANE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| HEPTANE | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| ETHYL ACETATE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| ETHYL ACETATE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| ETHYL ACETATE | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| ACETONE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| ACETONE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| ACETONE | Inhalation | immune system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL 1.19 mg/l | 6 hours |
| ACETONE | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Guinea pig | NOAEL Not available | |
| ACETONE | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| METHYLCYCLOHEXANE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Multiple animal species | NOAEL Not available | |
| METHYLCYCLOHEXANE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |
| CYCLOHEXANE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| CYCLOHEXANE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---------------|------------|--|--|---------|-----------------------|-------------------|
| HEPTANE | Inhalation | liver nervous system kidney and/or bladder | All data are negative | Rat | NOAEL 12 mg/l | 26 weeks |
| ETHYL ACETATE | Inhalation | endocrine system liver nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 0.043 mg/l | 90 days |
| ETHYL ACETATE | Inhalation | hematopoietic system | Some positive data exist, but the data are not sufficient for classification | Rabbit | LOAEL 16 mg/l | 40 days |
| ETHYL ACETATE | Ingestion | hematopoietic system liver kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 3,600 mg/kg/day | 90 days |

30601 POLYETHER ADHESIVE - 17 ML BOTTLE (NA) 10/09/14

| | | | | | | |
|-------------------|------------|---|--|------------|------------------------|---------------|
| ACETONE | Dermal | eyes | Some positive data exist, but the data are not sufficient for classification | Guinea pig | NOAEL Not available | 3 weeks |
| ACETONE | Inhalation | hematopoietic system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL 3 mg/l | 6 weeks |
| ACETONE | Inhalation | immune system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL 1.19 mg/l | 6 days |
| ACETONE | Inhalation | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Guinea pig | NOAEL 119 mg/l | not available |
| ACETONE | Inhalation | heart liver | All data are negative | Rat | NOAEL 45 mg/l | 8 weeks |
| ACETONE | Ingestion | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 900 mg/kg/day | 13 weeks |
| ACETONE | Ingestion | heart | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| ACETONE | Ingestion | hematopoietic system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 200 mg/kg/day | 13 weeks |
| ACETONE | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Mouse | NOAEL 3,896 mg/kg/day | 14 days |
| ACETONE | Ingestion | eyes | All data are negative | Rat | NOAEL 3,400 mg/kg/day | 13 weeks |
| ACETONE | Ingestion | respiratory system | All data are negative | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| ACETONE | Ingestion | muscles | All data are negative | Rat | NOAEL 2,500 mg/kg | 13 weeks |
| ACETONE | Ingestion | skin bone, teeth, nails, and/or hair | All data are negative | Mouse | NOAEL 11,298 mg/kg/day | 13 weeks |
| METHYLCYCLOHEXANE | Inhalation | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1.6 mg/l | 12 months |
| METHYLCYCLOHEXANE | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Rabbit | NOAEL 12 mg/l | 10 weeks |
| CYCLOHEXANE | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 24 mg/l | 90 days |
| CYCLOHEXANE | Inhalation | auditory system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1.7 mg/l | 90 days |
| CYCLOHEXANE | Inhalation | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rabbit | NOAEL 2.7 mg/l | 10 weeks |
| CYCLOHEXANE | Inhalation | hematopoietic system | Some positive data exist, but the data are not sufficient for classification | Mouse | NOAEL 24 mg/l | 14 weeks |
| CYCLOHEXANE | Inhalation | peripheral nervous system | All data are negative | Rat | NOAEL 8.6 mg/l | 30 weeks |
| ZINC OXIDE | Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 600 mg/kg/day | 10 days |
| ZINC OXIDE | Ingestion | endocrine system hematopoietic system kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Other | NOAEL 500 mg/kg/day | 6 months |

Aspiration Hazard

| Name | Value |
|------|-------|
|------|-------|

| | |
|-------------------|-------------------|
| HEPTANE | Aspiration hazard |
| METHYLCYCLOHEXANE | Aspiration hazard |
| CYCLOHEXANE | 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

Ecotoxicological information

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

Chemical fate information

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

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Incinerate in a permitted waste incineration facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

This material contains one or more substances not listed on the TSCA Inventory. Commercial use of this material is regulated by the FDA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 3 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 16-4015-0 | Version Number: | 15.00 |
| Issue Date: | 10/09/14 | Supersedes Date: | 03/02/11 |

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, 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 evaluate 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 its customers. Due to the remote possibility that 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 USA SDSs are available at www.3M.com