## SAFETY DATA SHEETS

# **This SDS packet was issued with item:** 075802046

N/A



### **Material Safety Data Sheet**

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**PRODUCT NAME:**3MTM ESPETM KETAC-SILVER APLICAP SILVER GI CEMENT**MANUFACTURER:**3M**DIVISION:**3M ESPE Dental Products

ADDRESS: 3M Center, St. Paul, MN 55144-1000

#### EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

**Issue Date:** 10/29/12 **Supercedes Date:** 02/10/10

**Document Group:** 16-2712-4

**ID** Number(s):

70-2011-0132-9, 70-2011-0133-7, 70-2011-0446-3

This product is a kit or a multipart product which consists of multiple, independently packaged components. An MSDS for each of these components is included. Please do not separate the component MSDSs from this cover page. The document numbers of the MSDSs for components of this product are:

30-8227-8, 26-9878-5

Revision Changes: Kit: Component document group number(s) was modified. Section 1: Manufacturer name was added. Section 16: Disclaimer (first paragraph) was added. Section 16: Disclaimer (second paragraph) was added. Section 16: Web address was added. Section 1: Address was added. Copyright was added. Company logo was added. Telephone header was added. Company Telephone was added. Section 1: Emergency phone information was added.

#### MATERIAL SAFETY DATA SHEET 3M<sup>TM</sup> ESPE<sup>TM</sup> KETAC-SILVER APLICAP SILVER GI CEMENT 10/29/12

Company Logo was deleted. Copyright was deleted. Kit: Manufacturer's name was deleted. Kit: Emergency phone information was deleted. Kit: Disclaimer (first paragraph) was deleted. Kit: Disclaimer (second paragraph) was deleted. Kit: Address line 1 was deleted. Kit: Address line 2 was deleted.

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### **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:**3M™ ESPE™ KETAC™ SILVER APLICAP™ LIQUID**MANUFACTURER:**3M**DIVISION:**3M ESPE Dental Products

ADDRESS: 3M Center, St. Paul, MN 55144-1000

#### EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

 Issue Date:
 09/14/12

 Supercedes Date:
 02/11/10

**Document Group:** 26-9878-5

#### **Product Use:**

Intended Use:Dental ProductLimitations on Use:For use only by dental professionals.Specific Use:Part of a filling material

### **SECTION 2: INGREDIENTS**

Ingredient	<u>C.A.S. No.</u>
WATER	7732-18-5
COPOLYMER OF ACRYLIC ACID - MALEIC ACID	29132-58-9
TARTARIC ACID	87-69-4

### **SECTION 3: HAZARDS IDENTIFICATION**

### **3.1 EMERGENCY OVERVIEW**

Specific Physical Form: Liquid

Odor, Color, Grade: slight characteristic odor, colorless liquid General Physical Form: Liquid

**Immediate health, physical, and environmental hazards:** 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.

<u>% by Wt</u> 40 - 60 30 - 50 5 - 15

### **3.2 POTENTIAL HEALTH EFFECTS**

#### Eye Contact:

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

#### Skin Contact:

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

#### Inhalation:

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

#### Ingestion:

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

### **SECTION 4: FIRST AID MEASURES**

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.
Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.
Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.
If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never

give anything by mouth to an unconscious person. Get medical attention.

### **SECTION 5: FIRE FIGHTING MEASURES**

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	No flash point
Flammable Limits(LEL)	Not Applicable
Flammable Limits(UEL)	Not Applicable

#### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: No unusual fire or explosion hazards are anticipated.

## Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

#### **6.2. Environmental precautions**

Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

#### **Clean-up methods**

Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with water.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

### **SECTION 7: HANDLING AND STORAGE**

#### 7.1 HANDLING

Avoid eye contact. Avoid breathing of vapors, mists or spray. Avoid prolonged or repeated skin contact.

#### 7.2 STORAGE

Store away from heat. Store away from areas where product may come into contact with food or pharmaceuticals.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Not applicable.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Avoid eye contact. The following eye protection(s) are recommended: Safety Glasses with side shields

#### 8.2.2 Skin Protection

Avoid prolonged or repeated skin contact.

#### 8.2.3 Respiratory Protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection. Avoid breathing of vapors, mists or spray.

#### 8.2.4 Prevention of Swallowing

Not applicable. Do not ingest.

### 8.3 EXPOSURE GUIDELINES

None Established

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Specific Physical Form: Odor, Color, Grade: General Physical Form: Autoignition temperature Flash Point Flammable Limits(LEL) Flammable Limits(UEL) Boiling Point

Vapor Density

**Vapor Pressure** 

Specific Gravity pH Melting point

Solubility in Water Evaporation rate Volatile Organic Compounds Kow - Oct/Water partition coef Percent volatile VOC Less H2O & Exempt Solvents Viscosity Liquid slight characteristic odor, colorless liquid Liquid *No Data Available* No flash point *Not Applicable Not Applicable* Approximately 100

<=1.0 [*Ref Std:* AIR=1]

16 mmHg [Ref Std: AIR=1]

>=1.0 [*Ref Std:* WATER=1] *No Data Available No Data Available* 

Complete <=1.0 [*Ref Std:* BUOAC=1] *No Data Available No Data Available No Data Available No Data Available No Data Available* 

### SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: 10.1 Conditions to avoid None known

**10.2 Materials to avoid** None known

Hazardous Polymerization: Hazardous polymerization will not occur.

### Hazardous Decomposition or By-Products

<u>Substance</u> Carbon monoxide Carbon dioxide <u>Condition</u> During Combustion During Combustion

### SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

### **SECTION 12: ECOLOGICAL INFORMATION**

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of waste product in a facility permitted to accept chemical waste. As a disposal alternative, incinerate in an industrial or commercial facility in the presence of a combustible material.

#### EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

### **SECTION 14:TRANSPORT INFORMATION**

LE-F100-0706-4

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

### **SECTION 15: REGULATORY INFORMATION**

### **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

#### **STATE REGULATIONS**

Contact 3M for more information.

#### **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.

### **INTERNATIONAL REGULATIONS**

Contact 3M for more information.

#### This MSDS 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 Reactivity: 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.

**Revision Changes:** 

Section 1: Product use information was modified.

Section 16: Disclaimer (second paragraph) was modified.

Section 3: Potential effects from eye contact was modified.

Section 3: Potential effects from skin contact information was modified.

Section 7: Storage information was modified.

Section 8: Engineering controls information was modified.

Section 8: Prevention of swallowing information was modified.

Section 10: Hazardous decomposition or by-products table was modified.

Section 13: Waste disposal method information was modified.

Section 8: Eye/face protection information was modified.

Section 14: Transportation legal text was modified.

Section 9: Vapor density value was modified.

Section 9: Vapor pressure value was modified.

Section 9: Boiling point information was modified.

Section 5: Flammable limits (UE) information was modified.

Section 5: Flammable limits (LEL) information was modified.

Section 5: Autoignition temperature information was modified.

Section 5: Flash point information was modified.

Section 9: Property description for optional properties was modified.

Section 9: Specific gravity information was modified.

Section 9: pH information was modified.

Section 9: Melting point information was modified.

Section 9: Solubility in water text was modified.

Section 1: Initial issue message was modified.

Section 9: Flash point information was modified.

Section 9: Flammable limits (LEL) information was modified.

Section 9: Flammable limits (UEL) information was modified.

Section 9: Autoignition temperature information was modified.

Section 2: Ingredient table was modified.

Section 6: Personal precautions information was modified.

Section 6: Environmental procedures information was modified.

Section 10: Materials to avoid physical property was modified.

Section 10: Conditions to avoid physical property was modified.

Section 6: 6.2. Environmental precautions heading was added.

Section 6: 6.1. Personal precautions, protective equipment and emergency procedures heading was added.

Section 16: Web address was added.

Section 1: Address was added.

Copyright was added.

Company logo was added.

Section 6: Clean-up methods heading was added.

Telephone header was added.

Company Telephone was added. Section 1: Emergency phone information was added. Section 1: Emergency phone information was deleted. Company Logo was deleted. Copyright was deleted. Section 16: Web address heading was deleted. Section 6: Release measures heading was deleted. Section 9: Property description for required properties was deleted. Section 1: Address line 1 was deleted. Section 1: Address line 2 was deleted.

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### **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:**3M™ ESPE™ KETAC SILVER APLICAP POWDER**MANUFACTURER:**3M**DIVISION:**3M ESPE Dental Products

ADDRESS: 3M Center, St. Paul, MN 55144-1000

#### EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 10/24/12 Supercedes Date: Initial Issue

Document Group: 30-8227-8

#### **Product Use:**

Intended Use:Dental ProductLimitations on Use:For use only by dental professionalsSpecific Use:Dental restorative

### **SECTION 2: INGREDIENTS**

Ingredient	<u>C.A.S. No.</u>	<u>% by Wt</u>
SILVER	7440-22-4	45 - 55
GLASS POWDER	65997-17-3	40 - 50
TITANIUM DIOXIDE	13463-67-7	1 - 5

### **SECTION 3: HAZARDS IDENTIFICATION**

#### **3.1 EMERGENCY OVERVIEW**

Specific Physical Form: Powder Odor, Color, Grade: Silver-gray, odorless General Physical Form: Solid

**Immediate health, physical, and environmental hazards:** Contains a chemical or chemicals which can cause cancer. 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.

### **3.2 POTENTIAL HEALTH EFFECTS**

#### **Eye Contact:**

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

#### **Skin Contact:**

Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

Prolonged or repeated exposure may cause:

Dermal Effects: Signs/symptoms may include changes in skin pigmentation and/or coloration.

#### Inhalation:

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

#### Ingestion:

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

#### **Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<b><u>Class Description</u></b>
TITANIUM DIOXIDE	13463-67-7	Grp. 2B: Possible human carc.

Regulation International As

uman carc. International Agency for Research on Cancer

### **SECTION 4: FIRST AID MEASURES**

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.
Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.
Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.
If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

### **SECTION 5: FIRE FIGHTING MEASURES**

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature Flash Point Flammable Limits(LEL) Flammable Limits(UEL)

No Data Available No flash point No Data Available No Data Available

#### 5.2 EXTINGUISHING MEDIA

Material will not burn.

### **5.3 PROTECTION OF FIRE FIGHTERS**

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Not applicable.

## Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

#### **6.2. Environmental precautions**

Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

#### **Clean-up methods**

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Collect as much of the spilled material as possible. Use wet sweeping compound or water to avoid dusting. Sweep up. Clean up residue.

## In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

### **SECTION 7: HANDLING AND STORAGE**

#### 7.1 HANDLING

Avoid eye contact. Avoid prolonged or repeated skin contact.

#### 7.2 STORAGE

Store away from heat. Store out of direct sunlight.

### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### 8.1 ENGINEERING CONTROLS

Not applicable.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Avoid eye contact. The following eye protection(s) are recommended: Safety Glasses with side shields

#### 8.2.2 Skin Protection

Avoid prolonged or repeated skin contact. Gloves not normally required.

#### 8.2.3 Respiratory Protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

#### 8.2.4 Prevention of Swallowing

Not applicable. Do not ingest.

#### **8.3 EXPOSURE GUIDELINES**

<u>Ingredient</u>	<u>Authority</u>	<b>Type</b>	<u>Limit</u>	Additional Information
GLASS POWDER	Manufacturer	TWA, as dust	10 mg/m3	
	determined			
SILVER	ACGIH	TWA, as dust and	0.1 mg/m3	
		fume		
SILVER	OSHA	TWA, as Ag	0.01 mg/m3	
TITANIUM DIOXIDE	ACGIH	TWA	10 mg/m3	
TITANIUM DIOXIDE	CMRG	TWA, as respirable	5 mg/m3	
		dust		
TITANIUM DIOXIDE	OSHA	TWA, as total dust	15 mg/m3	

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists CMRG: Chemical Manufacturer Recommended Guideline OSHA: Occupational Safety and Health Administration AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Specific Physical Form:** Powder **Odor, Color, Grade:** Silver-gray, odorless **General Physical Form:** Solid Autoignition temperature No Data Available **Flash Point** No flash point No Data Available Flammable Limits(LEL) Flammable Limits(UEL) No Data Available No Data Available **Boiling Point** No Data Available Vapor Density Vapor Pressure Not Applicable **Specific Gravity** >=1 [*Ref Std:* WATER=1] Not Applicable pН Melting point No Data Available Solubility in Water Nil **Evaporation rate** Not Applicable **Volatile Organic Compounds** Not Applicable Kow - Oct/Water partition coef No Data Available Not Applicable Percent volatile **VOC Less H2O & Exempt Solvents** Not Applicable Viscosity Not Applicable

### **SECTION 10: STABILITY AND REACTIVITY**

Stability: Stable.

Materials and Conditions to Avoid: 10.1 Conditions to avoid Heat

**10.2 Materials to avoid** None known

Hazardous Polymerization: Hazardous polymerization will not occur.

### Hazardous Decomposition or By-Products

<u>Substance</u> Irritant Vapors or Gases Condition During Combustion

### **SECTION 11: TOXICOLOGICAL INFORMATION**

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

### **SECTION 12: ECOLOGICAL INFORMATION**

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### **CHEMICAL FATE INFORMATION**

Not determined.

### **SECTION 13: DISPOSAL CONSIDERATIONS**

Waste Disposal Method: Reclaim if feasible. Dispose of waste product in a permitted hazardous waste facility.

#### EPA Hazardous Waste Number (RCRA): D011 (Silver)

Since regulations vary, consult applicable regulations or authorities before disposal.

### 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**

#### **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 - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	<u>% by Wt</u>
SILVER	7440-22-4	45 - 55
SILVER (Silver)	7440-22-4	45 - 55

#### STATE REGULATIONS

Contact 3M for more information.

#### **CALIFORNIA PROPOSITION 65**

<u>Ingredient</u>	<u>C.A.S. No.</u>	<b>Classification</b>
TITANIUM DIOXIDE	13463-67-7	**Carcinogen

\*\* WARNING: contains a chemical which can cause cancer.

#### **CHEMICAL INVENTORIES**

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. 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.

#### INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS 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: 0 Reactivity: 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.

No revision information is available.

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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.

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Document Group:	16-2712-4	Version Number:	4.04
Issue Date:	04/15/15	Supercedes Date:	04/03/14

Product identifier 3M<sup>TM</sup> ESPE<sup>TM</sup> KETAC-SILVER APLICAP

**ID** Number(s):

70-2011-0132-9, 70-2011-0133-7, 70-2011-0446-3, 70-2011-4281-0

Recommended use Dental Product, Dental restorations 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:

30-8227-8, 26-9878-5

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#### 3M<sup>TM</sup> ESPE<sup>TM</sup> KETAC-SILVER APLICAP 04/15/15

In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M

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Issue Date:	02/25/16	Supercedes Date:	10/30/14

#### **SECTION 1: Identification**

1.1. Product identifier

 $3M^{\rm TM}\,ESPE^{\rm TM}\,KETAC^{\rm TM}\,SILVER\,APLICAP^{\rm TM}\,LIQUID$ 

**Product Identification Numbers** LE-F100-0706-4

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

**Recommended use** Dental Product, Part of a filling material **Restrictions on use** For use only by dental professionals.

1.3. Supplier's details	
<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Oral Care Solutions Division
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

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**2.2. Label elements Signal word** Not applicable.

**Symbols** Not applicable. **Pictograms** Not applicable.

Not applicable.

### **2.3.** Hazards not otherwise classified

None.

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

Ingredient	C.A.S. No.	% by Wt
WATER	7732-18-5	40 - 60 Trade Secret *
COPOLYMER OF ACRYLIC ACID - MALEIC ACID	29132-58-9	30 - 50 Trade Secret *
TARTARIC ACID	87-69-4	5 - 15 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:

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

<u>Substance</u> Carbon monoxide Carbon dioxide <u>Condition</u> 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. 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. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with 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 eat, drink or smoke when using this product. Wash thoroughly after handling.

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

Store away from heat.

#### **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 SDS.

#### **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**

Respiratory protection is not required.

### **SECTION 9: Physical and chemical properties**

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

First information on Suste physical and chemical p	n operates
General Physical Form:	Liquid
Specific Physical Form:	Liquid
Odor, Color, Grade:	slight characteristic odor, colorless liquid
Odor threshold	No Data Available
рН	No Data Available
Melting point	No Data Available
Boiling Point	No Data Available
Flash Point	Flash point > 93 °C (200 °F)
Evaporation rate	No Data Available
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	Not Applicable
Flammable Limits(UEL)	Not Applicable
Vapor Pressure	16 mmHg [ <i>Ref Std:</i> AIR=1]
Vapor Density	No Data Available
Density	No Data Available
Specific Gravity	>= 1
Solubility in Water	Complete
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Molecular weight	No Data Available
Volatile Organic Compounds	No Data Available
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	No Data Available
-	

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

This material 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

## **10.5. Incompatible materials** None known.

#### 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 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:

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

#### **Skin Contact:**

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

#### **Eye Contact:**

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

#### **Ingestion:**

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

#### **Toxicological Data**

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

#### Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
COPOLYMER OF ACRYLIC ACID - MALEIC ACID	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
COPOLYMER OF ACRYLIC ACID - MALEIC ACID	Ingestion	Rat	LD50 > 5,000 mg/kg
TARTARIC ACID	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
TARTARIC ACID	Ingestion	Mouse	LD50 4,360 mg/kg

ATE = acute toxicity estimate

#### **Skin Corrosion/Irritation**

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

#### **Serious Eye Damage/Irritation**

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

#### Skin Sensitization

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

#### **Respiratory Sensitization**

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

#### Germ Cell Mutagenicity

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

#### Carcinogenicity

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

#### **Reproductive Toxicity**

#### **Reproductive and/or Developmental Effects**

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

#### 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

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

#### **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.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal 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

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

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.

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Issue Date:	06/20/16	Supercedes Date:	02/25/16

#### **SECTION 1: Identification**

1.1. Product identifier

 $3M^{\mbox{\tiny TM}}$  espetm ketac silver aplicap powder

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

Recommended use Dental Product, Restorative Restrictions on use For use only by dental professionals

1.3. Supplier's details	
MANUFACTURER:	3M
<b>DIVISION:</b>	Oral Care Solutions Division
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** Carcinogenicity: Category 2.

2.2. Label elements Signal word Warning

Symbols Health Hazard |

Pictograms



Hazard Statements Suspected of causing cancer.

#### **Precautionary Statements**

#### **Prevention:**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves.

#### **Response:**

IF exposed or concerned: Get medical advice/attention.

#### **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
SILVER	7440-22-4	45 - 55 Trade Secret *
OXIDE GLASS CHEMICALS (non-fibrous)	65997-17-3	40 - 50 Trade Secret *
TITANIUM DIOXIDE	13463-67-7	1 - 5 Trade Secret *
COPPER	7440-50-8	< 0.01 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:**

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

<u>Substance</u> Irritant Vapors or Gases

<u>Condition</u> 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. Use wet sweeping compound or water to avoid dusting. Sweep up. 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 prolonged or repeated skin contact. Do not handle until all safety precautions have been read and understood. 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. Use personal protective equipment (gloves, respirators, etc.) as required.

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

Store away from heat.

### **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
TITANIUM DIOXIDE	13463-67-7	CMRG	TWA(as respirable dust):5	
			mg/m3	
TITANIUM DIOXIDE	13463-67-7	OSHA	TWA(as total dust):15 mg/m3	
TITANIUM DIOXIDE	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human
				carcin
OXIDE GLASS CHEMICALS	65997-17-3	Manufacturer	TWA(as dust):10 mg/m3	
(non-fibrous)		determined		
SILVER	7440-22-4	ACGIH	TWA(as dust and fume):0.1	
			mg/m3	
SILVER	7440-22-4	OSHA	TWA(as Ag):0.01 mg/m3	
COPPER	7440-50-8	OSHA	TWA(as Cu dust or mist):1	
			mg/m3;TWA(as Cu, fume):0.1	
			mg/m3	

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

General Physical Form:
Specific Physical Form:
Odor, Color, Grade:
Odor threshold
рН
Melting point
Boiling Point
Flash Point
Evaporation rate
Flammability (solid, gas)
Flammable Limits(LEL)

Powder Silver-gray, odorless No Data Available Not Applicable No Data Available No flash point Not Applicable Not Classified No Data Available

Flammable Limits(UEL)	No Data Available
Vapor Pressure	Not Applicable
Vapor Density	No Data Available
Specific Gravity	>=1 [ <i>Ref Std:</i> WATER=1]
Solubility in Water	Nil
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	Not Applicable
Molecular weight	No Data Available
Volatile Organic Compounds	Not Applicable
Percent volatile	Not Applicable
VOC Less H2O & 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 polymerization will not occur.

10.4. Conditions to avoid Heat

#### **10.5.** Incompatible materials None known.

#### 10.6. Hazardous decomposition products

Substance 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

#### Condition

#### 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 additional health effects (see below).

#### **Skin Contact:**

May be harmful in contact with skin. Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

May cause additional health effects (see below).

#### **Eye Contact:**

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

#### **Ingestion:**

May be harmful if swallowed. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

#### **Additional Health Effects:**

#### Prolonged or repeated exposure may cause target organ effects:

Dermal Effects: Signs/symptoms may include changes in skin pigmentation and/or coloration.

#### **Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
TITANIUM DIOXIDE	13463-67-7	Grp. 2B: Possible human carc.	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
SILVER	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
SILVER	Ingestion	Rat	LD50 > 2,000 mg/kg
OXIDE GLASS CHEMICALS (non-fibrous)	Dermal		LD50 estimated to be > 5,000 mg/kg
OXIDE GLASS CHEMICALS (non-fibrous)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
TITANIUM DIOXIDE	Dermal	Rabbit	LD50 > 10,000 mg/kg
TITANIUM DIOXIDE	Inhalation-	Rat	LC50 > 6.82 mg/l
	Dust/Mist		
	(4 hours)		
TITANIUM DIOXIDE	Ingestion	Rat	LD50 > 10,000 mg/kg
COPPER	Dermal	Rat	LD50 > 2,000 mg/kg
COPPER	Inhalation-	Rat	LC50 > 5.11 mg/l
	Dust/Mist		
	(4 hours)		

COPPER	Ingestion	Rat	LD50 > 2,000 mg/kg
ATE = acute toxicity estimate			

#### Skin Corrosion/Irritation

Name	Species	Value
OXIDE GLASS CHEMICALS (non-fibrous)	Professio nal judgeme nt	No significant irritation
TITANIUM DIOXIDE	Rabbit	No significant irritation
COPPER	Rabbit	No significant irritation

#### Serious Eye Damage/Irritation

Name	Species	Value
OXIDE GLASS CHEMICALS (non-fibrous)	Professio nal judgeme nt	No significant irritation
TITANIUM DIOXIDE	Rabbit	No significant irritation
COPPER	Rabbit	Mild irritant

#### **Skin Sensitization**

Name	Species	Value
TITANIUM DIOXIDE	Human	Not sensitizing
	and	
	animal	

#### **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
TITANIUM DIOXIDE	In Vitro	Not mutagenic
TITANIUM DIOXIDE	In vivo	Not mutagenic

#### Carcinogenicity

Name	Route	Species	Value
TITANIUM DIOXIDE	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
TITANIUM DIOXIDE	Inhalation	Rat	Carcinogenic

#### **Reproductive Toxicity**

#### **Reproductive and/or Developmental Effects**

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

#### 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
TITANIUM DIOXIDE	Inhalation	respiratory system	Some positive data exist, but the	Rat	LOAEL 0.01	2 years
			data are not sufficient for		mg/l	
			classification			

TITANIUM DIOXIDE	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not	occupational
					available	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): D011 (Silver)

### **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 - No Delayed Hazard - Yes

#### Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<b>C.A.S.</b> No	<u>% by Wt</u>
SILVER	7440-22-4	Trade Secret 45 - 55
SILVER (Silver)	7440-22-4	45 - 55

#### **15.2. State Regulations**

Contact 3M for more information.

#### California Proposition 65

IngredientC.A.S. No.ClassificationTITANIUM DIOXIDE13463-67-7Carcinogen

WARNING: This product contains a chemical known to the State of California to cause cancer.

#### **15.3.** Chemical Inventories

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

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.

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