

## **SAFETY DATA SHEETS**

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

075317433

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

075317359 075317367 075317375 075317383 075317425 075317441 075317458 075317508 075317516 075317524

075317532 075317540 075317557 273015032 273015889 273016536 273023190 273033739

Don't order any longer - 2013

MATERIAL SAFETY DATA SHEET 12149/ 12150/ 12151/ 12154 3M™ ESPE™ VANISH™ 5% NaF WHITE VARNISH WITH TCP  
06/12/12



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 12149/ 12150/ 12151/ 12154 3M™ ESPE™ VANISH™ 5% NaF WHITE VARNISH WITH TCP

**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:** 06/12/12

**Supersedes Date:** 04/28/10

**Document Group:** 26-9856-1

#### Product Use:

Intended Use: Dental Product  
Limitations on Use: For use only by dental professionals  
Specific Use: Fluoride Varnish

### SECTION 2: INGREDIENTS

| <u>Ingredient</u>                                 | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|---|-------------------|----------------|
| PENTAERYTHRITOL GLYCEROL ESTER OF COLOPHONY RESIN | Not available     | 30 - 75        |
| n-HEXANE  | 110-54-3          | 10 - 15        |
| ETHYL ALCOHOL                                     | 64-17-5           | 1 - 15         |
| SODIUM FLUORIDE                                   | 7681-49-4         | 1 - 5          |
| FLAVOR ENHANCER                                   | Not available     | 1 - 5          |
| THICKENER   | Not available     | 1 - 5          |
| FOOD GRADE FLAVOR                                 | Not available     | 1 - 5          |
| MODIFIED TRICALCIUM PHOSPHATE                     | Not available     | < 5            |

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Liquid

**Odor, Color, Grade:** Light yellow liquid with mint, cherry or melon odor

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. 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. See Section 3.2 for other hazards that can be associated with the ingredients in this product in a non-emergency situation.

### 3.2 POTENTIAL HEALTH EFFECTS

**Eye Contact:**

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

**Skin Contact:**

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

**Inhalation:**

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

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

May be absorbed following inhalation and cause target organ effects.

**Ingestion:**

May be harmful if swallowed.

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

Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and may be fatal.

May be absorbed following ingestion and cause target organ effects.

**Target Organ Effects:**

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

Prolonged or repeated exposure may cause:

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

Hard Tissue Effects: Signs/symptoms may include color changes in the teeth and nails; changes in development of bone, teeth or nails; weakening of the bones; and/or hair loss.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

NOTE: This product contains ethanol. There are data associating human consumption of alcoholic beverages (ethanol) with developmental toxicity. This is not an expected effect during the foreseeable use of this product.

**Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

NOTE: This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified as human carcinogens by the International Agency for Research on Cancer, the U.S. National Toxicology Program, and the California Environmental Protection Agency (for purposes of Proposition 65). Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer.

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Class Description</u>       | <u>Regulation</u>                           |
|-------------------|-------------------|--------------------------------|---|
| ETHYL ALCOHOL     | 64-17-5           | Grp. 1: Carcinogenic to humans | 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:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

|                          |                                 |
|--------------------------|---------------------------------|
| Autoignition temperature | No Data Available               |
| Flash Point              | 25 °C [Test Method: Closed Cup] |
| Flammable Limits(LEL)    | No Data Available               |
| Flammable Limits(UEL)    | No Data Available               |

### 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:** Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode.

**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. Cover, but do not seal for 48 hours.

### 6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene.

### 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.

**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

Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid breathing of vapors, mists or spray. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment. Avoid eye contact. Avoid prolonged or repeated skin contact. Wash hands after handling and before eating.

### 7.2 STORAGE

Store away from acids. Store away from heat. Store away from oxidizing agents. Store in a cool, dry place.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use in a well-ventilated area.

### 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. Avoid

breathing of vapors, mists or spray.

#### 8.2.4 Prevention of Swallowing

Do not ingest. Wash hands after handling and before eating.

### 8.3 EXPOSURE GUIDELINES

| <u>Ingredient</u> | <u>Authority</u> | <u>Type</u>  | <u>Limit</u>           | <u>Additional Information</u> |
|-------------------|------------------|--------------|------------------------|-------------------------------|
| ETHYL ALCOHOL     | ACGIH            | STEL         | 1000 ppm               |                               |
| ETHYL ALCOHOL     | OSHA             | TWA          | 1900 mg/m <sup>3</sup> |                               |
| FLUORIDES         | ACGIH            | TWA, as F    | 2.5 mg/m <sup>3</sup>  |                               |
| FLUORIDES         | OSHA             | TWA, as dust | 2.5 mg/m <sup>3</sup>  |                               |
| FLUORIDES         | OSHA             | TWA, as F    | 2.5 mg/m <sup>3</sup>  |                               |
| Hexane            | ACGIH            | TWA          | 50 ppm                 | Skin Notation*                |
| Hexane            | OSHA             | TWA          | 1800 mg/m <sup>3</sup> |                               |
| n-HEXANE          | ACGIH            | TWA          | 50 ppm                 | Skin Notation*                |
| n-HEXANE          | OSHA             | TWA          | 1800 mg/m <sup>3</sup> |                               |

\* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

#### 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:        | Liquid  |
| Odor, Color, Grade:            | Light yellow liquid with mint, cherry or melon odor |
| General Physical Form:         | Liquid  |
| Autoignition temperature       | No Data Available                                   |
| Flash Point                    | 25 °C [Test Method: Closed Cup]                     |
| Flammable Limits(LEL)          | No Data Available                                   |
| Flammable Limits(UEL)          | No Data Available                                   |
| Boiling Point                  | 68 °C   |
| Density                        | 0.8 g/ml  |
| Vapor Density                  | Not Applicable                                      |
| Vapor Pressure                 | Not Applicable                                      |
| Specific Gravity               | 0.8 [Ref Std: WATER=1]                              |
| pH                             | Not Applicable                                      |
| Melting point                  | Not Applicable                                      |
| Solubility in Water            | Moderate  |
| Evaporation rate               | Not Applicable                                      |
| Kow - Oct/Water partition coef | Not Applicable                                      |
| Viscosity                      | No Data Available                                   |

## SECTION 10: STABILITY AND REACTIVITY



**Stability:** Stable.

**Materials and Conditions to Avoid:**

**10.1 Conditions to avoid**

Heat

**10.2 Materials to avoid**

Strong oxidizing agents

Strong acids

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Hazardous Decomposition or By-Products**

**Substance**

Carbon monoxide

Carbon dioxide

**Condition**

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:** Incinerate uncured product in a permitted hazardous waste incinerator.

As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

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

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

**SECTION 14: TRANSPORT INFORMATION**

**ID Number(s):**

70-2010-5739-8, 70-2010-5740-6, 70-2010-5741-4, 70-2010-5742-2, 70-2010-5743-0, 70-2010-5744-8, 70-2010-5745-5, 70-2010-5746-3, 70-2010-5747-1, 70-2010-5748-9, 70-2010-5749-7, 70-2010-5750-5, 70-2010-5751-3, 70-2010-5752-1, 70-2010-8812-0, 70-

2010-8813-8, 70-2010-8814-6, 70-2010-8815-3, 70-2010-8816-1, 70-2010-8817-9, 70-2010-8818-7, 70-2010-8819-5, 70-2010-8820-3, 70-2010-8821-1, 70-2010-8822-9, 70-2010-8823-7, 70-2010-8824-5, 70-2010-8825-2, 70-2010-8826-0, 70-2010-8838-5, 70-2010-8839-3, 70-2010-8840-1, 70-2010-8849-2, 70-2010-8850-0, 70-2010-8851-8

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 - Yes 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):

| <u>Ingredient</u> | <u>C.A.S. No</u> | <u>% by Wt</u> |
|-------------------|------------------|----------------|
| n-HEXANE          | 110-54-3         | 10 - 15        |
| n-HEXANE (Hexane) | 110-54-3         | 10 - 15        |

### 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: 2 Flammability: 3 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.

**Reason for Reissue:** Change in MSDS ingredient disclosure.

#### Revision Changes:

Section 1: Product use information was modified.

Section 16: Disclaimer (second paragraph) was modified.

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

Section 3: Carcinogenicity phrase was modified.

Section 14: Transportation legal text was modified.



Section 9: Density information 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 9: Vapor density text was modified.  
Section 9: Vapor pressure text was modified.  
Section 5: Flash point information was modified.  
Sections 3 and 9: Odor, color, grade 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 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 14: ID Number(s) Template 1 was modified.  
Section 2: Ingredient table was modified.  
Section 15: EPCRA 313 information was modified.  
Section 8: Exposure guidelines ingredient information was modified.  
Section 3: Carcinogenicity table 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 1: Address line 1 was deleted.  
Section 1: Address line 2 was deleted.

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## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 12149/ 12150/ 12151/ 12154 3M™ ESPE™ VANISH™ 5% NaF WHITE VARNISH  
WITH TCP

**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:** 07/02/13

**Supersedes Date:** 03/11/13

**Document Group:** 26-9856-1

#### Product Use:

Intended Use: Dental Product  
Limitations on Use: For use only by dental professionals  
Specific Use: Fluoride Varnish

### SECTION 2: INGREDIENTS

| <u>Ingredient</u>                                 | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|---|-------------------|----------------|
| PENTAERYTHRITOL GLYCEROL ESTER OF COLOPHONY RESIN | Not available     | 30 - 75        |
| n-HEXANE  | 110-54-3          | 10 - 15        |
| ETHYL ALCOHOL                                     | 64-17-5           | 1 - 15         |
| SODIUM FLUORIDE                                   | 7681-49-4         | 1 - 5          |
| FLAVOR ENHANCER                                   | Not available     | 1 - 5          |
| THICKENER   | Not available     | 1 - 5          |
| FOOD GRADE FLAVOR                                 | Not available     | 1 - 5          |
| MODIFIED TRICALCIUM PHOSPHATE                     | Not available     | < 5            |

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Liquid

**Odor, Color, Grade:** Light yellow liquid with mint, cherry or melon odor

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm. 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:**

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

**Skin Contact:**

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

**Inhalation:**

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

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

May be absorbed following inhalation and cause target organ effects.

**Ingestion:**

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

Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and may be fatal.

May be absorbed following ingestion and cause target organ effects.

**Target Organ Effects:**

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

Prolonged or repeated exposure may cause:

Hard Tissue Effects: Signs/symptoms may include color changes in the teeth and nails; changes in development of bone, teeth or nails; weakening of the bones; and/or hair loss.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

NOTE: This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified as human carcinogens by the International Agency for Research on Cancer, the U.S. National Toxicology Program, and the California Environmental Protection Agency (for purposes of Proposition 65). Exposure to ethanol during the foreseeable use of this product is not expected to cause 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:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

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

### **5.1 FLAMMABLE PROPERTIES**

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Autoignition temperature</b> | <i>No Data Available</i>        |
| <b>Flash Point</b>              | 25 °C [Test Method: Closed Cup] |
| <b>Flammable Limits(LEL)</b>    | <i>No Data Available</i>        |
| <b>Flammable Limits(UEL)</b>    | <i>No Data Available</i>        |

### **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:** Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode.

**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. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

## **6.2. Environmental precautions**

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. 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. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. 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 using non-sparking tools. Clean up residue with detergent and water. Seal the container.

**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**

Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid breathing of vapors, mists or spray. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment. Avoid eye contact. Avoid prolonged or repeated skin contact. Wash hands after handling and before eating.

## **7.2 STORAGE**

Store away from acids. Store away from heat. Store away from areas where product may come into contact with food or pharmaceuticals. Store away from oxidizing agents. Store in a cool, dry place.

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

## **8.1 ENGINEERING CONTROLS**

Use with appropriate local exhaust ventilation. Use in a well-ventilated area.

## **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

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### **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. Avoid breathing of vapors, mists or spray.

### **8.2.4 Prevention of Swallowing**

Do not ingest. Wash hands after handling and before eating.



### 8.3 EXPOSURE GUIDELINES

| <u><b>Ingredient</b></u> | <u><b>Authority</b></u> | <u><b>Type</b></u> | <u><b>Limit</b></u> | <u><b>Additional Information</b></u> |
|--------------------------|-------------------------|--------------------|---------------------|--------------------------------------|
| ETHYL ALCOHOL            | ACGIH                   | STEL               | 1000 ppm            |                                      |
| ETHYL ALCOHOL            | OSHA                    | TWA                | 1900 mg/m3          |                                      |
| FLUORIDES                | ACGIH                   | TWA, as F          | 2.5 mg/m3           |                                      |
| FLUORIDES                | OSHA                    | TWA, as dust       | 2.5 mg/m3           |                                      |
| FLUORIDES                | OSHA                    | TWA, as F          | 2.5 mg/m3           |                                      |
| n-HEXANE                 | ACGIH                   | TWA                | 50 ppm              | Skin Notation*                       |
| n-HEXANE                 | OSHA                    | TWA                | 1800 mg/m3          |                                      |
| Hexane                   | ACGIH                   | TWA                | 50 ppm              | Skin Notation*                       |
| Hexane                   | OSHA                    | TWA                | 1800 mg/m3          |                                      |

\* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

#### 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

|                                       |   |
|---------------------------------------|---|
| <b>Specific Physical Form:</b>        | Liquid  |
| <b>Odor, Color, Grade:</b>            | Light yellow liquid with mint, cherry or melon odor |
| <b>General Physical Form:</b>         | Liquid  |
| <b>Autoignition temperature</b>       | <i>No Data Available</i>                            |
| <b>Flash Point</b>                    | 25 °C [ <i>Test Method:</i> Closed Cup]             |
| <b>Flammable Limits(LEL)</b>          | <i>No Data Available</i>                            |
| <b>Flammable Limits(UEL)</b>          | <i>No Data Available</i>                            |
| <b>Boiling Point</b>                  | 68 °C   |
| <b>Density</b>                        | 0.8 g/ml  |
| <b>Vapor Density</b>                  | <i>Not Applicable</i>                               |
| <b>Vapor Pressure</b>                 | <i>Not Applicable</i>                               |
| <b>Specific Gravity</b>               | 0.8 [ <i>Ref Std:</i> WATER=1]                      |
| <b>pH</b>                             | <i>Not Applicable</i>                               |
| <b>Melting point</b>                  | <i>Not Applicable</i>                               |
| <b>Solubility in Water</b>            | Moderate  |
| <b>Evaporation rate</b>               | <i>Not Applicable</i>                               |
| <b>Volatile Organic Compounds</b>     | <i>No Data Available</i>                            |
| <b>Kow - Oct/Water partition coef</b> | <i>Not Applicable</i>                               |
| <b>Viscosity</b>                      | <i>No Data Available</i>                            |

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:**

#### 10.1 Conditions to avoid

Heat

#### 10.2 Materials to avoid

Strong oxidizing agents

Strong acids

**Hazardous Polymerization:** Hazardous polymerization will not occur.

### Hazardous Decomposition or By-Products

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

### CHEMICAL FATE INFORMATION

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Incinerate uncured product in a permitted hazardous waste incinerator.

As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

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

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

## SECTION 14: TRANSPORT INFORMATION

#### ID Number(s):

70-2010-5739-8, 70-2010-5740-6, 70-2010-5741-4, 70-2010-5742-2, 70-2010-5743-0, 70-2010-5744-8, 70-2010-5745-5, 70-2010-5746-3, 70-2010-5747-1, 70-2010-5748-9, 70-2010-5749-7, 70-2010-5750-5, 70-2010-5751-3, 70-2010-5752-1, 70-2010-8812-0, 70-2010-8813-8, 70-2010-8814-6, 70-2010-8815-3, 70-2010-8816-1, 70-2010-8817-9, 70-2010-8818-7, 70-2010-8819-5, 70-2010-8820-3, 70-2010-8821-1, 70-2010-8822-9, 70-2010-8823-7, 70-2010-8824-5, 70-2010-8825-2, 70-2010-8849-2, 70-2010-8850-0, 70-2010-8851-8

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 - Yes 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):

| <u>Ingredient</u> | <u>C.A.S. No</u> | <u>% by Wt</u> |
|-------------------|------------------|----------------|
| n-HEXANE          | 110-54-3         | 10 - 15        |
| n-HEXANE (Hexane) | 110-54-3         | 10 - 15        |

### 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: 2 Flammability: 3 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.

**Reason for Reissue:** Change in MSDS ingredient disclosure.

#### Revision Changes:

Section 3: Potential effects from ingestion information was modified.

Section 7: Storage information was modified.

Section 3: Carcinogenicity phrase was modified.

Section 3: Immediate other hazard(s) was modified.

Section 3: Other health effects information was modified.

Section 9: Property description for optional properties was modified.

Section 8: Exposure guidelines ingredient information was modified.

Section 6: Personal precautions information was modified.

Section 6: Environmental procedures information was modified.

Section 6: Methods for cleaning up information was modified.

Section 3: Other potential health effects comment for reproduction was deleted.

Section 12: Ecotoxicological phrase was deleted.

Section 12: Chemical Fate phrase was deleted.

Section 3: Carcinogenicity table was deleted.

Section 3: Carcinogenicity heading was deleted.

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