



## Material Safety Data Sheet

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This material safety data sheet (MSDS) is provided as a courtesy in response to a customer request. This product is not regulated under, and a MSDS is not required for this product by the OSHA Hazard Communication Standard (29 CFR 1910.1200) because, when used as recommended or under ordinary conditions, it should not present a health and safety hazard. However, use or processing of the product not in accordance with the product's recommendations or not under ordinary conditions may affect the performance of the product and may present potential health and safety hazards.

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M 1146 Glass Filament Reinforced Adhesive Tape

**MANUFACTURER:** 3M

**DIVISION:** Electrical Markets Division

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

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

**Issue Date:** 06/16/09

**Supersedes Date:** Initial Issue

**Document Group:** 16-2381-8

**Product Use:**

Intended Use: ELECTRICAL/THERMAL INSULATION TAPE

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
Glass filament reinforced polyester film	Trade Secret	> 50
Rubber Resin Adhesive	Trade Secret	< 50
zinc compound	1314-13-2	< 1
ZINC RESINATE	9010-69-9	< 1

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Roll of Tape

**Odor, Color, Grade:** white, little or no odor

**General Physical Form:** Solid

**Immediate health, physical, and environmental hazards:** May cause thermal burns. This product, when used under reasonable conditions and in accordance with the 3M directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

### **3.2 POTENTIAL HEALTH EFFECTS**

**Eye Contact:**

No health effects are expected. Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Dust created by cutting, grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Vapors from heated material may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction.

**Skin Contact:**

Thermal Burns: Signs/symptoms may include intense pain, redness and swelling, and tissue destruction.

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

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

No health effects are expected.

**Inhalation:**

No health effects are expected. Vapors from heated material may cause target organ effects.

Vapors from heated material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Dust from cutting, grinding, sanding or machining may cause target organ effects.

This product may have a characteristic odor; however, no adverse health effects are anticipated.

**Ingestion:**

No health effects are expected.

## **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:** Immediately flush eyes with large amounts of water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Get immediate medical attention.

**Skin Contact:** Immediately flush skin with large amounts of cold water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Cover affected area with a clean dressing. Get immediate medical attention.

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

**If Swallowed:** No need for first aid is anticipated.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	No Data Available
Flammable Limits - LEL	Not Applicable
Flammable Limits - UEL	Not Applicable
OSHA Flammability Classification:	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:** Not applicable. 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

**Accidental Release Measures:** Not applicable. Ventilate the area with fresh air.

## SECTION 7: HANDLING AND STORAGE

### 7.1 HANDLING

Avoid skin contact with hot material. Avoid breathing of dust created by cutting, sanding, grinding or machining. This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. Avoid contact with oxidizing agents.

### 7.2 STORAGE

Not applicable. Store away from oxidizing agents.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Not applicable. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Provide appropriate local exhaust when product is heated. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control dust, fume, or airborne particles. If ventilation is not adequate, use respiratory protection equipment.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Not applicable.

#### 8.2.2 Skin Protection

Wear appropriate gloves, such as Nomex, when handling this material to prevent thermal burns. Not applicable. Avoid skin contact. Avoid skin contact with hot material.

#### 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 dust created by cutting, sanding, grinding or machining.

#### 8.2.4 Prevention of Swallowing

Not applicable.

### 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>
zinc compound	ACGIH	TWA, respirable	2 mg/m3	
zinc compound	ACGIH	STEL	10 mg/m3	
zinc compound	OSHA	TWA, as fume	5 mg/m3	Table Z-1
zinc compound	OSHA	TWA, respirable	5 mg/m3	Table Z-1
zinc compound	OSHA	STEL, Vacated, as fume	10 mg/m3	
zinc compound	OSHA	TWA, Vacated, as dust	10 mg/m3	
zinc compound	OSHA	TWA, as total dust	15 mg/m3	Table Z-1

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

#### 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>	Roll of Tape
<b>Odor, Color, Grade:</b>	white, little or no odor
<b>General Physical Form:</b>	Solid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	<i>No Data Available</i>
<b>Flammable Limits - LEL</b>	<i>Not Applicable</i>
<b>Flammable Limits - UEL</b>	<i>Not Applicable</i>
<b>Boiling point</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Specific Gravity</b>	Approximately 0.94 Units not avail. or not appl. [Ref Std: WATER=1]
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Solubility in Water</b>	Nil
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>Not Applicable</i>
<b>Percent volatile</b>	<i>Not Applicable</i>
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>Not Applicable</i>
<b>Viscosity</b>	<i>Not Applicable</i>

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:** Strong oxidizing agents

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

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Hydrocarbons	Oxidation, heat or reaction
Formaldehyde	Oxidation, heat or reaction
Carbon monoxide	Oxidation, heat or reaction
Carbon dioxide	Oxidation, heat or reaction
Crystalline Silica	Oxidation, heat or reaction
Irritant Vapors or Gases	Oxidation, heat or reaction
Oxides of Zinc	Oxidation, heat or reaction

**Hazardous Decomposition:** Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products may occur as a result of oxidation, heating, or reaction with another material.

## 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 applicable.

### CHEMICAL FATE INFORMATION

Not applicable.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of waste product in a sanitary landfill. As a disposal alternative, incinerate in an industrial or commercial facility.

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

## SECTION 14: TRANSPORT INFORMATION

### ID Number(s):

80-6112-1652-6

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

## 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 - No Delayed Hazard - No

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>
zinc compound (ZINC COMPOUNDS)	1314-13-2	< 1
ZINC RESINATE (ZINC COMPOUNDS)	9010-69-9	< 1

**STATE REGULATIONS**

Contact 3M for more information.

**CHEMICAL INVENTORIES**

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

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.

**HMIS Hazard Classification**

**Health: 1 Flammability: 1 Reactivity: 0 Protection: B**

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

No revision information is available.

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