



## 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:** SCOTCH(TM) 2228 Rubber Mastic 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:** 03/24/09  
**Supersedes Date:** 03/24/09

**Document Group:** 11-0744-0

**Product Use:**

Intended Use: Electrical  
 Intended Use: ELECTRICAL INSULATION AND MOISTURE SEALING

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
ALUMINA TRIHYDRATE	21645-51-2	22 - 37
Polyisobutylene	9003-27-4	18 - 28
Polybutylene	9003-29-6	10 - 20
Calcium Carbonate	471-34-1	8 - 18
Kaolin	1332-58-7	5 - 15
ETHYLENE-PROPYLENE-ETHYLIDENENORBORNENE TERPOLYMER	25038-36-2	6 - 11
Carbon Black	1333-86-4	5 - 10
Isobutylene-Isoprene Polymer	9010-85-9	4 - 8
DISTILLATES (PETROLEUM), C3-6, PIPERYLENE-RICH, POLYMERS WITH ISOBUTYLENE	152698-66-3	1 - 7
POLYPROPYLENE	9003-07-0	1 - 6
PIPERYLENE-2-METHYL-2-BUTENE POLYMER	26813-14-9	1 - 6
SOLVENT REFINED RESIDUAL OIL (PETROLEUM)	64742-01-4	1 - 4

Asphalt	8052-42-4	2 - 4
ZINC STEARATE	557-05-1	0 - 1
QUARTZ SILICA	14808-60-7	0 - 0.5

This product is in compliance with EU RoHS Directive 2002/95/EC

**SECTION 3: HAZARDS IDENTIFICATION**

**3.1 EMERGENCY OVERVIEW**

**Specific Physical Form:** Roll of Tape  
**Odor, Color, Grade:** Black roll with release liner  
**General Physical Form:** Solid  
**Immediate health, physical, and environmental hazards:**

**3.2 POTENTIAL HEALTH EFFECTS**

**Eye Contact:**  
 No health effects are expected.

**Skin Contact:**  
 No health effects are expected.

**Inhalation:**  
 No health effects are expected.

**Ingestion:**  
 No health effects are expected.

**Carcinogenicity:**  
 Contains a chemical or chemicals which can cause cancer.

WARNING: Contains a chemical which can cause cancer. (1333-86-4,8052-42-4) (IARC possible human carcinogen 2B)

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
Asphalt	8052-42-4	Group 2B	International Agency for Research on Cancer
Carbon Black	1333-86-4	Group 2B	International Agency for Research on Cancer
CARBON BLACK EXTRACTS	NONE	Group 2B	International Agency for Research on Cancer
QUARTZ SILICA	14808-60-7	Group 1	International Agency for Research on Cancer
QUARTZ SILICA	14808-60-7	Known human carcinogen	National Toxicology Program Carcinogens
SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE)	NONE	Group 1	International Agency for Research on Cancer
SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE)	NONE	Known human carcinogen	National Toxicology Program Carcinogens

**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:** No need for first aid is anticipated.
- Skin Contact:** No need for first aid is anticipated.
- Inhalation:** No need for first aid is anticipated.
- If Swallowed:** No need for first aid is anticipated.

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

### **5.1 FLAMMABLE PROPERTIES**

<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	<i>Not Applicable</i>
<b>Flammable Limits - LEL</b>	<i>Not Applicable</i>
<b>Flammable Limits - UEL</b>	<i>Not Applicable</i>

### **5.2 EXTINGUISHING MEDIA**

Use fire extinguishers with class D extinguishing agents (e.g. dry powder). Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g., water, foam). Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

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

**Special Fire Fighting Procedures:** See Hazardous Decomposition section for products of combustion.

**Unusual Fire and Explosion Hazards:** Flammable solid.

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

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

**Accidental Release Measures:** Not applicable.

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

### **7.1 HANDLING**

For industrial use only. Not intended for use as a medical device or drug. Avoid contact with oxidizing agents.

### **7.2 STORAGE**

Store under normal warehouse conditions. Store away from oxidizing agents.

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

### **8.1 ENGINEERING CONTROLS**

Not applicable.

**8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**8.2.1 Eye/Face Protection**

Not applicable.

**8.2.2 Skin Protection**

Not applicable.

**8.2.3 Respiratory Protection**

Not applicable.

**8.2.4 Prevention of Swallowing**

Not an expected route of exposure.

**8.3 EXPOSURE GUIDELINES**

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
Asphalt	ACGIH	TWA, as fume	0.5 mg/m3	Table A4
Calcium Carbonate	CMRG	TWA	10 mg/m3	
Calcium Carbonate	CMRG	STEL	20 mg/m3	
Carbon Black	ACGIH	TWA	3.5 mg/m3	Table A4
Carbon Black	CMRG	TWA	0.5 mg/m3	
Carbon Black	OSHA	TWA	3.5 mg/m3	Table Z-1
Kaolin	ACGIH	TWA, respirable	2 mg/m3	Table A4
Kaolin	OSHA	TWA, respirable	5 mg/m3	Table Z-1
Kaolin	OSHA	TWA, Vacated, as dust	10 mg/m3	
Kaolin	OSHA	TWA, as total dust	15 mg/m3	Table Z-1
POLYPROPYLENE	CMRG	TWA, as respirable dust	5 mg/m3	
POLYPROPYLENE	CMRG	TWA, as total dust	10 mg/m3	
QUARTZ SILICA	ACGIH	TWA, respirable	0.025 mg/m3	Table A2
QUARTZ SILICA	OSHA	TWA, respirable	0.1 mg/m3	Table Z-1A
STEARATES	ACGIH	TWA, as total dust	10 mg/m3	Table A4
ZINC STEARATE	ACGIH	TWA	10 mg/m3	
ZINC STEARATE	ACGIH	STEL	20 mg/m3	
ZINC STEARATE	OSHA	TWA, respirable	5 mg/m3	Table Z-1
ZINC STEARATE	OSHA	TWA, Vacated, as dust	10 mg/m3	
ZINC STEARATE	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>	Black roll with release liner
<b>General Physical Form:</b>	Solid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	<i>Not Applicable</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 1.1 Units not avail. or not appl. [ <i>Ref Std:</i> WATER=1]
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>No Data Available</i>
<b>Viscosity</b>	<i>Not Applicable</i>

**SECTION 10: STABILITY AND REACTIVITY**

**Stability:** Stable.

**Materials and Conditions to Avoid:** None known

**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**

Not determined.

**CHEMICAL FATE INFORMATION**

Not determined.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Incinerate in an industrial or commercial facility.

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

**SECTION 14: TRANSPORT INFORMATION**

ID Number	UPC	ID Number	UPC
2228		78-8055-7098-9	
80-6103-2294-5	00-54007-09656-6	80-6107-3766-2	00-54007-50727-7
80-6109-2896-4	00-54007-42918-0	80-6112-0077-7	00-54007-43478-8
80-6112-1055-2	00-54007-44385-8	80-6112-1056-0	00-54007-50727-7
80-6112-1186-5		80-6114-1998-9	000-51128-55775-4

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**

**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 STEARATE (ZINC COMPOUNDS)	557-05-1	0 - 1

**STATE REGULATIONS**

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
BITUMENS, EXTRACTS OF STEAM-REFINED AND AIR-REFINED CARBON BLACK EXTRACTS	NONE	**Carcinogen
SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE)	NONE	**Carcinogen
Carbon Black	1333-86-4	**Carcinogen

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

**CHEMICAL INVENTORIES**

The components of this product are in compliance with the chemical notification requirements of TSCA.

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.

The components of this product are listed on the Australian Inventory of Chemical Substances.

All the components of this product are listed on China's Inventory of Chemical Substances.

The components of this product are listed on the Canadian Domestic Substances List.

**Additional Information:** Carbon black, calcium silicate and zinc stearate are compounded into the polymeric matrix; therefore, these will not contribute to dust hazard for inhalation nor ingestion.

**INTERNATIONAL REGULATIONS**

**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: 0 Flammability: 1 Reactivity: 0 Protection: A**

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).

Revision Changes:

Section 2: Ingredient table was modified.

Section 8: Exposure guidelines ingredient information was modified.

Section 3: Carcinogenicity table was modified.

Section 15: EPCRA 313 information was added.

Section 15: EPCRA 313 text was added.

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