

MATERIAL SAFETY 3M
 DATA SHEET 3M Center
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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.

DIVISION: ELECTRICAL PRODUCTS DIVISION
 TRADE NAME:
 3M Electrical 23 Tape
 ID NUMBER/U.P.C.:
 VE-0000-2828-6 00-54007-15025-1
 ISSUED: February 17, 1999
 SUPERSEDES: INITIAL ISSUE
 DOCUMENT: 08-9491-5

1. INGREDIENT	C.A.S. NO.		PERCENT
TALC.....	14807-96-6	20	- 30
Polyisobutylene.....	TradeSecret	15	- 30
ETHYLENE-PROPYLENE-1,4-HEXADIENE POLYMER.....	25038-37-3	15	- 30
POLYPROPYLENE.....	9003-07-0	5	- 15
SOLVENT REFINED RESIDUAL OIL (PETROLEUM).....	64742-01-4	5	- 15
PIPERYLENE-2-METHYL-2-BUTENE POLYMER....	26813-14-9	1	- 10
POLYBUTYLENE.....	9003-29-6	1	- 10
CARBON BLACK.....	1333-86-4	1	- 10
ZINC STEARATE.....	557-05-1	0.1	- 1.0
organo-silicone.....	Mixture	0.5	- 2.0
antioxidant.....	119-47-1	0.1	- 1.0

Individual ingredients are blended into polymer matrix, therefore
 minimizing any potential exposure to these components.

This product contains the following toxic chemical or chemicals subject to

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

1. INGREDIENT	C.A.S. NO.	PERCENT
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the reporting requirements of Section 313 of Title III of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR Part 372:
ZINC STEARATE

2. PHYSICAL DATA

BOILING POINT:..... N/A
VAPOR PRESSURE:..... N/A
VAPOR DENSITY:..... N/A
EVAPORATION RATE:..... N/A
SOLUBILITY IN WATER:..... neglig.
SPECIFIC GRAVITY:..... N/D
PERCENT VOLATILE:..... N/A
pH:..... N/A
VISCOSITY:..... N/A
MELTING POINT:..... N/D

APPEARANCE AND ODOR:
Roll of Tape, BLACK ROLL OF TAPE WITH LINER

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... N/D
FLAMMABLE LIMITS - LEL:..... N/D
FLAMMABLE LIMITS - UEL:..... N/D
AUTOIGNITION TEMPERATURE:..... N/D

EXTINGUISHING MEDIA:
Water spray, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head. Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
None known. No unusual fire or explosion hazards are anticipated.

NFPA HAZARD CODES: HEALTH: 0 FIRE: 1 REACTIVITY: 0
UNUSUAL REACTION HAZARD: none

OSHA FIRE HAZARD CLASS: Not applicable

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4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Strong Oxidizing Agents.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide, Oxides of Zinc, Irritant Vapors
or Gases.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:
Observe precautions from other sections. Collect spilled material.
Place in a closed container.

RECOMMENDED DISPOSAL:
Dispose of waste product in a sanitary landfill. Disposal
alternative: Incinerate in an industrial or commercial facility in
the presence of a combustible material.

ENVIRONMENTAL DATA:
Not determined.

REGULATORY INFORMATION:
Volatile Organic Compounds: N/A.
VOC Less H2O & Exempt Solvents: N/A.

Since regulations vary, consult applicable regulations or authorities
before disposal. In the event of an uncontrolled release of this
material, the user should determine if the release qualifies as a
reportable quantity. U.S. EPA Hazardous Waste Number = None (Not
U.S. EPA Hazardous).

EPCRA HAZARD CLASS:
FIRE HAZARD: No PRESSURE: No REACTIVITY: No ACUTE: No CHRONIC: No

6. SUGGESTED FIRST AID

EYE CONTACT:
No need for first aid is anticipated.

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6. SUGGESTED FIRST AID (continued)

SKIN CONTACT:

No need for first aid is anticipated.

INHALATION:

If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:

No need for first aid is anticipated.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact.

SKIN PROTECTION:

Avoid prolonged or repeated skin contact.

RECOMMENDED VENTILATION:

Use with adequate dilution ventilation.

RESPIRATORY PROTECTION:

Avoid breathing of thermal decomposition products.

PREVENTION OF ACCIDENTAL INGESTION:

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

RECOMMENDED STORAGE:

Store in a cool place. Store out of direct sunlight.

FIRE AND EXPLOSION AVOIDANCE:

Keep away from heat, sparks, open flame, and other sources of ignition.

HMIS HAZARD RATINGS: HEALTH: 0 FLAMMABILITY: 1 REACTIVITY: 0
PERSONAL PROTECTION: A

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
TALC.....	2	MG/M3	TWA	OSHA	
		as respirable dust			
TALC.....	2	MG/M3	TWA	ACGIH	
		as respirable dust			
Polyisobutylene.....	NONE	NONE	NONE	NONE	
ETHYLENE-PROPYLENE-1,4-HEXADIENE POLYMER.....	NONE	NONE	NONE	NONE	

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

EXPOSURE LIMITS (continued)

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
POLYPROPYLENE.....	NONE	NONE	NONE	NONE	
SOLVENT REFINED RESIDUAL OIL (PETROLEUM).....	NONE	NONE	NONE	NONE	
PIPERYLENE-2-METHYL-2-BUTENE POLYMER.....	NONE	NONE	NONE	NONE	
POLYBUTYLENE.....	NONE	NONE	NONE	NONE	
CARBON BLACK.....	3.5	MG/M3	TWA	ACGIH	
CARBON BLACK.....	3.5	MG/M3	TWA	OSHA	
ZINC STEARATE.....	10	MG/M3	TWA	OSHA	
ZINC STEARATE.....	10	MG/M3	TWA	ACGIH	
organo-silicone.....	NONE	NONE	NONE	NONE	
antioxidant.....	NONE	NONE	NONE	NONE	

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN 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
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

8. HEALTH HAZARD DATA

EYE CONTACT:

Eye contact is not expected to occur during normal use of the product.

No adverse health effects are expected from eye contact.

SKIN CONTACT:

No adverse health effects are expected from skin contact.

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

INHALATION:

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

Health effects from inhalation are not expected unless the product is over heated and decomposition occurs.

If thermal decomposition occurs:

Irritation (upper respiratory): signs/symptoms can include

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8. HEALTH HAZARD DATA (continued)

soreness of the nose and throat, coughing and sneezing.

IF SWALLOWED:

Ingestion is not a likely route of exposure to this product.

No adverse health effects are expected from swallowing.

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