

MATERIAL SAFETY 3M
DATA SHEET 3M Center
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DIVISION: ELECTRICAL PRODUCTS DIVISION
TRADE NAME:
IMCSN Heat Shrink Tubing
ISSUED: August 20, 2001
SUPERSEDES: INITIAL ISSUE
DOCUMENT: 16-4687-6

1. INGREDIENT	C.A.S. NO.	PERCENT
Adhesive Lined Polyolefin Tubing - Flame Retardant.....	Unknown	100

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.

2. PHYSICAL DATA

BOILING POINT:..... N/A
VAPOR PRESSURE:..... N/A
VAPOR DENSITY:..... N/A
EVAPORATION RATE:..... N/A
SOLUBILITY IN WATER:..... N/A
SPECIFIC GRAVITY:..... ca. 1.28 Water=1
PERCENT VOLATILE:..... N/A
pH:..... N/A
VISCOSITY:..... N/A
MELTING POINT:..... N/D

APPEARANCE AND ODOR:
black, plastic tube, ADHESIVE LINED TUBING, VARIOUS SIZES, ODORLESS

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

3. FIRE AND EXPLOSION HAZARD DATA

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

EXTINGUISHING MEDIA:

Water, 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.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None known.

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

OSHA FIRE HAZARD CLASS: Not applicable

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Strong Oxidizing Agents. None known. Reactive Metals, Finely divided active metals. Reactions with metals in powder form occur from 370 C onwards. Al or Mg powder and high shear/temperature conditions.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products anticipated as a result of oxidation (excluding burning), heating, or reaction with another material may include: Carbon Monoxide and Carbon Dioxide, Aldehydes, Hydrocarbons, Hydrogen Bromide, Oxides of Zinc, Oxides of Antimony, Toxic Vapors, Gases or Particulates, Irritant Vapors or Gases. Initial decomposition begins at 250 C, and above 280 C significant decomposition occurs with the formation of decomposition products listed above.

Heating product beyond temperature recommended by instruction sheet may cause release of the following compounds: Benzene, Toluene, Formaldehyde, Acetaldehyde, and Hydrogen Bromide.

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4. REACTIVITY DATA (continued)

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:
Not applicable.

RECOMMENDED DISPOSAL:
Dispose of waste product in a sanitary landfill.

ENVIRONMENTAL DATA:
No data available.

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

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

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

6. SUGGESTED FIRST AID

EYE CONTACT:
If exposed to vapors or smoke, immediately flush eyes with large
amounts of water. Get immediate medical attention.

SKIN CONTACT:
If skin contact with hot material occurs: DO NOT ATTEMPT TO REMOVE
MOLTEN MATERIAL. Immediately flush affected area with plenty of cold
water and cover with a clean dressing. Have burn treated by a
physician.

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

IF SWALLOWED:
Drink two glasses of water. Call a physician.

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7. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact with vapors or smoke resulting from overheating or when used in confined areas.

SKIN PROTECTION:

Avoid skin contact with hot material. Wear appropriate gloves, such as Nomex, when handling this material to prevent thermal burns.

RECOMMENDED VENTILATION:

Local exhaust is required for operations using large amounts of material. Conduct air monitoring to determine adequacy of ventilation. Use in a well-ventilated area. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

WHEN USING THIS PRODUCT IN A CONFINED SPACE OR WHERE VENTILATION MAY BE INADEQUATE THEN RESPIRATORY PROTECTION MAY BE WORN. INADEQUATE VENTILATION OR CONFINED SPACES WOULD CAUSE VAPORS FROM HEATING OF THIS PRODUCT TO BE PRESENT IN THE USER'S BREATHING ZONE AND MAY CAUSE RESPIRATORY IRRITATION. EXCESSIVE HEATING OF THIS PRODUCT BEYOND THE RECOMMENDED APPLICATION TEMPERATURE IS NOT RECOMMENDED AND MAY RESULT IN THERMAL DEGRADATION AND DECOMPOSITION PRODUCTS WHICH MAY RESULT IN ADVERSE HEALTH EFFECTS.

RESPIRATORY PROTECTION:

Avoid breathing of fumes. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half-mask organic vapor respirator with dust/mist prefilter.

PREVENTION OF ACCIDENTAL INGESTION:

Wash hands after handling and before eating.

RECOMMENDED STORAGE:

Store at room temperature. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Not applicable.

HMS HAZARD RATINGS: HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0
PERSONAL PROTECTION: B

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
Adhesive Lined Polyolefin Tubing - Flame Retardant.....	NONE	NONE	NONE	NONE	

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

EXPOSURE LIMITS (continued)

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
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* 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:
- NONE: None Established

8. HEALTH HAZARD DATA

EYE CONTACT:

Vapors from heated material may cause eye irritation.

SKIN CONTACT:

Skin Burns (thermal, from contact with hot material): signs/symptoms can include burning pain, red and swollen skin, and blisters.

INHALATION:

Vapors of heated material may cause respiratory system irritation.

RESPIRATORY IRRITATION WOULD NOT BE EXPECTED IN APPLICATIONS WHERE ADEQUATE VENTILATION AND PROPER APPLICATION (AT DESIGNATED TEMPERATURES) IS UTILIZED. EXCESSIVE HEATING AND INADEQUATE VENTILATION MAY RESULT IN EXPOSURE TO THERMAL DEGRADATION AND DECOMPOSITION PRODUCTS AS INDICATED IN SECTION 4 OF THIS MSDS UNDER "REACTIVITY DATA-HAZARDOUS DECOMPOSITION PRODUCTS".

IF SWALLOWED:

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

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