

MATERIAL SAFETY 3M  
 DATA SHEET 3M Center  
 St. Paul, Minnesota  
 55144-1000  
 1-800-364-3577 or (651) 737-6501 (24 hours)

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DIVISION: ELECTRICAL PRODUCTS DIVISION

TRADE NAME:

SCOTCHCAST BRAND ELECTRICAL INSULATING RESIN 2104

U.P.C. Number:

00-54007-11849-7 00-54007-31187-4 00-54007-31189-8 00-54007-31382-3  
 00-54007-31383-0 00-54007-50699-7 00-54007-50700-0

ISSUED: August 14, 2001

SUPERSEDES: May 02, 2001

DOCUMENT: 10-2611-1

1. INGREDIENT	C.A.S. NO.	PERCENT	
PART A: DITRIDECYL PHTHALATE.....	119-06-2	30	- 45
MDI POLYURETHANE PREPOLYMER.....	68442-03-5	15	- 25
POLYMETHYLENE POLYPHENYLENE ISOCYANATE..	9016-87-9	15	- 25
C.I. SOLVENT YELLOW 3.....	97-56-3		< 0.015
P,P'-METHYLENEBIS(PHENYL ISOCYANATE)....	101-68-8	15	- 20
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)....	26447-40-5	1	- 5
PART B: POLYPROPYLENE GLYCOL GLYCEROL			
TRIEETHER.....	25791-96-2	55	- 65
N,N-DI(2-HYDROXYPROPYL)ANILINE.....	3077-13-2	10.0	- 20.0
DITRIDECYL PHTHALATE.....	119-06-2	10.0	- 20.0
DIPROPYLENE GLYCOL.....	25265-71-8	5.0	- 10.0

This product contains the following toxic chemical or chemicals subject to  
 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:

POLYMETHYLENE POLYPHENYLENE ISOCYANATE  
 C.I. SOLVENT YELLOW 3  
 P,P'-METHYLENEBIS(PHENYL ISOCYANATE)

2. PHYSICAL DATA

BOILING POINT:..... N/A  
 VAPOR PRESSURE:..... N/A  
 VAPOR DENSITY:..... N/A  
 EVAPORATION RATE:..... N/A  
 SOLUBILITY IN WATER:..... Reacts

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

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2. PHYSICAL DATA (continued)  
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SPECIFIC GRAVITY:..... PRE.:1.05 POL.:1.00  
PERCENT VOLATILE:..... 0  
pH:..... N/A  
VISCOSITY:..... PRE.:17p POL.:6p  
MELTING POINT:..... N/D

APPEARANCE AND ODOR:

PREPOLYMER: Green, viscous liquid POLYOL:Amber liquid

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3. FIRE AND EXPLOSION HAZARD DATA  
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FLASH POINT:..... Both >270F Closed Cup  
FLAMMABLE LIMITS - LEL:..... N/D  
FLAMMABLE LIMITS - UEL:..... N/D  
AUTOIGNITION TEMPERATURE:..... N/D

EXTINGUISHING MEDIA:

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:

See Hazardous Decomposition section for products of combustion.

NFPA HAZARD CODES: HEALTH: 2 FIRE: 1 REACTIVITY: 0  
UNUSUAL REACTION HAZARD: none

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4. REACTIVITY DATA  
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STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Amines, Alcohols, Water. Reaction with water, alcohols and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

This refers to Part A (prepolymer).

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

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4. REACTIVITY DATA (continued)  
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HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Hydrogen Cyanide, Isocyanates, Toxic Vapors, Gases or Particulates, Irritant Vapors or Gases.

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5. ENVIRONMENTAL INFORMATION  
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SPILL RESPONSE:

Follow precautionary information. PREPOLYMER: Wear an organic vapormask. Pour decontaminant (8% conc. ammonia, 2% liquid detergent, 90% water) over spill and react 10 minutes. If these reagents are not available, use water and allow a longer reaction time. Pour adsorbent over neutralized spill. Collect and drum. Let drum sit with excess decontaminant for 24 hours before sealing. POLYOL: Pour adsorbent over spill. Collect and drum.

RECOMMENDED DISPOSAL:

PREPOLYMER or POLYOL: Should be buried in a secure landfill or incinerated in accordance with local and state regulations. Cured resin may be buried in a sanitary landfill in accordance with local and state regulations.

ENVIRONMENTAL DATA:

No data available.

REGULATORY INFORMATION:

Volatile Organic Compounds: N/D.  
VOC Less H2O & Exempt Solvents: N/D.

EPCRA HAZARD CLASS:

FIRE HAZARD: No PRESSURE: No REACTIVITY: Yes ACUTE: Yes CHRONIC: Yes

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6. SUGGESTED FIRST AID  
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EYE CONTACT:

Immediately flush eyes with large amounts of water. Get immediate medical attention.

SKIN CONTACT:

Immediately wash skin with soap and large amounts of water. Remove contaminated clothing. If signs/symptoms occur, call a physician. Wash contaminated clothing before reuse and dispose of contaminated shoes.

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6. SUGGESTED FIRST AID (continued)  
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INHALATION:

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

IF SWALLOWED:

Do not induce vomiting. Drink two glasses of water. Call a physician.

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7. PRECAUTIONARY INFORMATION  
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EYE PROTECTION:

Avoid eye contact.

SKIN PROTECTION:

Avoid prolonged or repeated skin contact. Wear appropriate gloves when handling this material.

RECOMMENDED VENTILATION:

Use with appropriate local exhaust ventilation. Provide appropriate local exhaust for heat curing. Use in a well-ventilated area. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid breathing of vapors created during the cure cycle. Avoid prolonged breathing of vapors. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask supplied air respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Wash hands after handling and before eating.

RECOMMENDED STORAGE:

Not applicable.

FIRE AND EXPLOSION AVOIDANCE:

Not applicable.

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
PART A: DITRIDECYL PHTHALATE.....	NONE	NONE	NONE	NONE	
MDI POLYURETHANE PREPOLYMER.....	NONE	NONE	NONE	NONE	
POLYMETHYLENE POLYPHENYLENE ISOCYANATE.....	NONE	NONE	NONE	NONE	
C.I. SOLVENT YELLOW 3.....	NONE	NONE	NONE	NONE	

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

EXPOSURE LIMITS (continued)

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
P,P'-METHYLENEBIS(PHENYL ISOCYANATE).....	0.02	PPM	CEIL	OSHA	
P,P'-METHYLENEBIS(PHENYL ISOCYANATE).....	0.005	PPM	TWA	ACGIH	
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)....	0.005	PPM	TWA	ACGIH	
1,1'-METHYLENEBIS(ISOCYANATOBENZENE)....	0.02	PPM	CEIL	OSHA	
PART B: POLYPROPYLENE GLYCOL					
GLYCEROL TRIETHER.....	NONE	NONE	NONE	NONE	
N,N-DI(2-HYDROXYPROPYL)ANILINE.....	NONE	NONE	NONE	NONE	
DITRIDECYL PHTHALATE.....	NONE	NONE	NONE	NONE	
DIPROPYLENE GLYCOL.....	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:

Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.

SKIN CONTACT:

Mild Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, and itching.

Part A (prepolymer) and the mixture of Part A with Part B (polyol) may cause an allergic skin reaction in certain susceptible individuals.

INHALATION:

PREPOLYMER contains methylene bisphenyl diisocyanate (MDI) which is a respiratory irritant and may cause respiratory sensitization resulting in asthmatic-like symptoms. The low vapor pressure of MDI precludes significant hazard at room temperature.

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8. HEALTH HAZARD DATA (continued)  
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IF SWALLOWED:

Swallowing a relatively large amount of this material is unlikely to produce serious illness or death.

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SECTION CHANGE DATES  
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HEADING	SECTION CHANGED SINCE May 02, 2001	ISSUE
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