MATERIAL SAFETY DATA SHEET

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

DIVISION: ELECTRICAL PRODUCTS DIVISION
TRADE NAME:
SCOTCHCAST PORCELAIN TERMINATION KIT 5905
ID NUMBER/U.P.C.:
80-7110-8000-4 00-54007-15454-9
ISSUED: August 23, 1996
SUPERSEDES: February 23, 1995
DOCUMENT: 10-5816-3

This product is a kit or a multipart product which consists of multiple, independently packaged components. An MSDS for each of these components is included. Please do not separate the component MSDSs from this cover page. The document numbers of the MSDSs for components of this product are:
11-4627-3
10-2610-3

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

MATERIAL SAFETY DATA SHEET

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DIVISION: ELECTRICAL PRODUCTS DIVISION
TRADE NAME:
SCOTCHCAST BRAND ELECTRICAL INSULATING RESIN 2100
U.P.C. Number:
00-54007-34530-5 00-54007-34531-2
ISSUED: August 14, 2001
SUPERSEDES: December 01, 1997
DOCUMENT: 10-2610-3

1. INGREDIENT

INGREDIENT	C.A.S. NO.	PERCENT
PART A: DIPHENYL METHANE DIISOCYANATE...	101-68-8	35.0 - 45.0
DIUNDECYL PHTHALATE.....	3648-20-2	35.0 - 40.0
POLYBUTADIENE.....	69102-90-5	15.0 - 20.0
GLYCOLS, POLYPROPYLENE.....	25322-69-4	5.0 - 10.0
PART B: POLYBUTADIENE.....	69102-90-5	35.0 - 40.0
DIUNDECYL PHTHALATE.....	3648-20-2	20.0 - 25.0
GLYCOLS, POLYPROPYLENE.....	25322-69-4	10.0 - 15.0
N,N-DI(2-HYDROXYPROPYL)ANILINE.....	3077-13-2	10.0 - 15.0
DIPROPYLENE GLYCOL.....	25265-71-8	5.0 - 10.0
ZEOLITES.....	1318-02-1	1.0 - 5.0
CASTOR OIL.....	8001-79-4	1.0 - 5.0

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:
PART A: DIPHENYL METHANE DIISOCYANATE

2. PHYSICAL DATA

BOILING POINT:..... N/A
VAPOR PRESSURE:..... N/A
VAPOR DENSITY:..... N/A
EVAPORATION RATE:..... N/A
SOLUBILITY IN WATER:..... Reacts
SPECIFIC GRAVITY:..... PRE.:1.05 POL.:0.97
PERCENT VOLATILE:..... 0
pH:..... N/A

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

2. PHYSICAL DATA (continued)

VISCOSITY:..... PRE.:10p POL.:20p
MELTING POINT:..... N/D

APPEARANCE AND ODOR:
PREPOLYMER:Dark viscous liquid POLYOL:Opaque viscous liquid

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... Both>320F 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

4. REACTIVITY DATA

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.

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

4. REACTIVITY DATA (continued)

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:
Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Pour isocyanate decontaminant solution (90% water,8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Alternatively, pour water on spill and allow to react for more than 30 minutes. Cover with absorbent. Place in an approved drum, but do not seal the drum for 48 hours to avoid possible pressure buildup. Neutralize spill residue with decontaminant solution.

RECOMMENDED DISPOSAL:
Incinerate in an industrial or commercial facility. Dispose of completely cured (or polymerized) material in a sanitary landfill.

ENVIRONMENTAL DATA:
No data available.

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

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

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

6. SUGGESTED FIRST AID

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

SKIN CONTACT:
Flush skin with large amounts of water. If irritation persists, get medical attention.

INHALATION:
Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

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

6. SUGGESTED FIRST AID (continued)

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

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:
Avoid eye contact. Wear safety glasses with side shields.

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

RECOMMENDED VENTILATION:
Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:
Avoid 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 organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:
Do not ingest.

RECOMMENDED STORAGE:
Keep container in well-ventilated area. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:
Keep container tightly closed. Do not heat under confinement.

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
PART A: DIPHENYL METHANE DIISOCYANATE	0.02	PPM	CEIL	OSHA	
PART A: DIPHENYL METHANE DIISOCYANATE	0.005	PPM	TWA	ACGIH	
DIUNDECYL PHTHALATE	NONE	NONE	NONE	NONE	
POLYBUTADIENE	NONE	NONE	NONE	NONE	
GLYCOLS, POLYPROPYLENE	10	MG/M3 AS PARTICULATE	TWA	AIHA	
PART B: POLYBUTADIENE	NONE	NONE	NONE	NONE	
DIUNDECYL PHTHALATE	NONE	NONE	NONE	NONE	

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

EXPOSURE LIMITS (continued)

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
GLYCOLS, POLYPROPYLENE.....	10 AS PARTICULATE	MG/M3	TWA	AIHA	
N,N-DI(2-HYDROXYPROPYL)ANILINE.....	NONE	NONE	NONE	NONE	
DIPROPYLENE GLYCOL.....	NONE	NONE	NONE	NONE	
ZEOLITES.....	NONE	NONE	NONE	NONE	
CASTOR OIL.....	10 AS MIST	MG/M3	TWA	OSHA	

* 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
- AIHA: American Industrial Hygiene Assoc. Workplace Environmental Exposure Level Guideline
- 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:
Allergic Skin Reaction: signs/symptoms can include redness, swelling, blistering, and itching.

Mild Skin Irritation: signs/symptoms can include redness, swelling, and itching.

INHALATION:
Prolonged or repeated exposure may cause:

Allergic Respiratory Reaction: signs/symptoms can include difficulty breathing, wheezing, tightness of chest, and respiratory failure.

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

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

SECTION CHANGE DATES

HEADING	SECTION CHANGED SINCE December 01, 1997	ISSUE

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

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Material Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CC-2 PREP KIT (CABLE CLEANER)
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: 03/27/2006
Supercedes Date: 10/26/2003

Document Group: 11-4627-3

Product Use:
Specific Use: SOLVENT SOAKED RAGS FOR CABLE CLEANING

SECTION 2: INGREDIENTS

Ingredient	C.A.S. No.	% by Wt
PETROLEUM DISTILLATES	64771-72-8	80 - 95
D-LIMONENE	5989-27-5	5 - 20

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Odor, Color, Grade: clear, citrus-like odor
General Physical Form: Liquid
Immediate health, physical, and environmental hazards: Flammable liquid and vapor. Combustible liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. May cause allergic skin reaction. May cause target organ effects.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:
Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:
Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Inhalation:
Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
May be absorbed following inhalation and cause target organ effects.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.
Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and may be fatal.
May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

3.3 POTENTIAL ENVIRONMENTAL EFFECTS

VOC Data: 740 grams/liter maximum VOC (less water and exempt compounds). U.S. EPA Waste Number: None. 5 Day Biological Oxygen Demand (BOD-5) = 77,000 mg/L. Chemical Oxygen Demand (COD) = 290,000 mg/L.

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: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

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

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	*No Data Available*
Flash Point	>=144 ºF [*Test Method:* Closed Cup]
Flash Point	144 ºF [*Test Method:* Closed Cup] [*Details:* MITS data]
Flash Point	>=165 ºF [*Test Method:* Open Cup]
Flammable Limits - LEL	*No Data Available*
Flammable Limits - UEL	*No Data Available*
OSHA Flammability Classification:	Class IIIA Combustible Liquid

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: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Flammable liquid and vapor. Combustible liquid and vapor. Not applicable. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Place in a metal container approved for transportation by appropriate authorities. Seal the container.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. No smoking while handling this material. Avoid breathing of vapors, mists or spray. Avoid eye contact with vapors, mists, or spray. Avoid contact with oxidizing agents.

7.2 STORAGE
Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS
Use with appropriate local exhaust ventilation. Provide appropriate local exhaust ventilation on open containers. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection
Avoid eye contact. Avoid eye contact with vapors, mists, or spray.
The following eye protection(s) are recommended: Indirect Vented Goggles.

8.2.2 Skin Protection
Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.
Gloves made from the following material(s) are recommended: Fluoroelastomer (Viton), Nitrile Rubber, Polyethylene.

8.2.3 Respiratory Protection
Avoid breathing of vapors, mists or spray.
Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

Ingredient	Authority	Type	Limit	Additional Information
PETROLEUM DISTILLATES	CMRG	TWA	300 ppm	

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

Odor, Color, Grade:	clear, citrus-like odor
General Physical Form:	Liquid
Autoignition temperature	*No Data Available*
Flash Point	>=144 ºF [*Test Method:* Closed Cup]
Flash Point	144 ºF [*Test Method:* Closed Cup] [*Details:* MITS data]
Flash Point	>=165 ºF [*Test Method:* Open Cup]
Flammable Limits - LEL	*No Data Available*
Flammable Limits - UEL	*No Data Available*
Boiling point	380.00 - 480.00 ºF
Boiling point	>=95 ºF [*Details:* MITS data]
Density	0.76 g/ml
Vapor Density	>=1.00 [*Ref Std:* AIR=1]
Vapor Pressure	<=1.0000 mmHg [*Details:* CONDITIONS: Less than 1 mmHg at 25 C]
Specific Gravity	0.76 [*Details:* MITS data]
pH	7.0
Melting point	*No Data Available*

Evaporation rate	*Not Applicable*
Volatile Organic Compounds	Approximately 740 g/l
VOC Less H2O & Exempt Solvents	*No Data Available*
Viscosity	*No Data Available*

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

Substance	Condition
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified

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. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste.

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

SECTION 14:TRANSPORT INFORMATION

ID Number(s):
78-8061-7605-9, 80-6105-9299-2, 80-6112-0013-2, 80-6114-2769-3

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 - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

STATE REGULATIONS
Contact 3M for more information.

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.

Contact 3M for more information.

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

Additional Information: All components are on the TSCA; EINECS; and CDSL Inventories.

INTERNATIONAL REGULATIONS
Contact 3M for more information.

WHMIS: Hazardous

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: 2 **Flammability:** 2 **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: 2 **Flammability:** 2 **Reactivity:** 0 **Protection:** B

Hazardous Material Identification System (HMIS®) 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® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

Revision Changes:
Section 16: NFPA hazard classification heading was modified.
Section 16: HMIS hazard classification heading was modified.
Section 3: Potential environmental effects heading was modified.
Section 3: Other potential health effects heading was modified.
Section 1: Division name was modified.
Copyright was modified.
Section 8: Exposure guidelines data source legend was modified.
Section 3: Immediate physical hazard(s) was modified.
Section 3: Potential effects from eye contact was modified.
Section 3: Potential effects from inhalation information was modified.
Section 3: Potential effects from ingestion information was modified.
Section 5: Fire fighting procedures information was modified.
Section 5: Unusual fire and explosion hazard information was modified.
Section 6: Release measures information was modified.
Section 7: Handling information was modified.
Section 7: Storage information was modified.
Section 8: Eye/face protection phrase was modified.
Section 15: 311/312 hazard categories heading was modified.
Section 15: International regulations information was modified.
Section 15: State regulations information was modified.
Section 15: US federal regulations information was modified.
Section 10: Hazardous polymerization heading was modified.
Section 3: Other health effects information was modified.
Section 14: ID Number(s) was modified.
Section 16: HMIS explanation was modified.
Section 16: NFPA explanation was modified.
Section 15: 311/312 Delayed Hazard score was modified.
Section 15: Inventories information was modified.
Section 12: Ecotoxicological information heading was modified.
Section 12: Chemical fate information heading was modified.
Section 16: NFPA hazard classification for special hazards was modified.
Section 15: Inventories comment was modified.
Section 12: Ecotoxicological phrase was modified.
Section 12: Chemical Fate phrase was modified.
Section 15: WHMIS regulations heading was added.
Section 15: WHMIS regulations information was added.
Section 2: Ingredient phrase was added.

3M MSDSs are available at www.3M.com