



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SCOTCHKOTE 323 Patch, Brush, and Spray Grades, Part A

MANUFACTURER: 3M

DIVISION: Corrosion Protection Products Dept

ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 07/29/2008

Supersedes Date: 02/11/2007

Document Group: 16-0684-7

Product Use:

Intended Use: Coating
Specific Use: Part A of 2 Part Liquid Epoxy Coating System

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER	25068-38-6	60 - 70
HYDROUS MAGNESIUM SILICATE	14807-96-6	20 - 30
TITANIUM DIOXIDE	13463-67-7	1 - 5

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Viscous

Odor, Color, Grade: Viscous, White

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: 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.

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:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

During grinding, scraping, sanding:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

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. If signs/symptoms develop, 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 unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	> 200 °F [<i>Test Method: Tagliabue Closed Cup</i>]
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>

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: 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. There is the possibility of pressure buildup in closed containers when heated. Water spray may be used to cool these containers.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. 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. Collect as much of the spilled material as possible. Clean up residue with detergent and water. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

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. Avoid breathing of vapors, mists or spray. Avoid breathing of vapors created during cure cycle. Avoid skin contact with hot material. Avoid eye contact with vapors, mists, or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. For industrial or professional use only. Do not breathe thermal decomposition products. Avoid skin contact. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Keep out of the reach of children.

7.2 STORAGE

Store away from acids. Store away from oxidizing agents. Store away from heat. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Provide local exhaust ventilation at transfer points. Provide ventilated enclosure for heat curing. Provide appropriate local exhaust for molten or extruded material. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Provide appropriate local exhaust when product is heated. Local exhaust ventilation with a minimum capture velocity of 100 linear feet per minute should be provided for applications at or above the boiling temperature. 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 with vapors, mists, or spray.

The following eye protection(s) are recommended: Indirect Vented Goggles.

8.2.2 Skin Protection

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

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: Butyl Rubber. The following protective clothing material(s) are recommended: Apron - Neoprene.

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of vapors created during cure cycle. Avoid breathing of dust created by cutting, sanding, grinding or machining.

Select one of the following NIOSH-approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half-face or full-face air purifying respirator with Organic Vapor cartridges and P95 particulate prefilters; Hood-type PAPR (powered air purifying respirator) with Organic Vapor cartridges and HEPA particulate filters. 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

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
HYDROUS MAGNESIUM SILICATE	ACGIH	TWA, respirable	2 mg/m3	Table A4
HYDROUS MAGNESIUM SILICATE	CMRG	TWA, as respirable dust	0.5 mg/m3	
HYDROUS MAGNESIUM SILICATE	OSHA	TWA, respirable	2 mg/m3	Table Z-1A
TITANIUM DIOXIDE	ACGIH	TWA	10 mg/m3	Table A4
TITANIUM DIOXIDE	CMRG	TWA, as respirable dust	5 mg/m3	
TITANIUM DIOXIDE	OSHA	TWA, Vacated, as dust	10 mg/m3	
TITANIUM DIOXIDE	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

Specific Physical Form:	Viscous
Odor, Color, Grade:	Viscous, White
General Physical Form:	Liquid
Autoignition temperature	<i>No Data Available</i>
Flash Point	> 200 °F [<i>Test Method:</i> Tagliabue Closed Cup]
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>
Boiling point	<i>No Data Available</i>
Density	<i>No Data Available</i>
Vapor Density	> 1 [<i>Ref Std:</i> AIR=1]
Vapor Pressure	0.01 mmHg [<i>Test Method:</i> Calculated] [<i>Details:</i> at 25C, Raoult's Law]
Specific Gravity	1.4 g/ml [<i>Ref Std:</i> WATER=1]
pH	<i>Not Applicable</i>
Melting point	<i>No Data Available</i>
Solubility In Water	<i>No Data Available</i>
Evaporation rate	< 1 [<i>Ref Std:</i> BUOAC=1]
Volatile Organic Compounds	12 g/l [<i>Details:</i> For coating mixture of Parts A and B]
Viscosity	120,000 - 280,000 centipoise [@ 72 °F] [<i>Test Method:</i> Brookfield]

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>
Aldehydes	During Combustion

Carbon monoxide
Carbon dioxide
Hydrogen Chloride
Irritant Vapors or Gases
Ammonia
Oxides of Nitrogen

During Combustion
During Combustion
At Elevated Temperatures
At Elevated Temperatures
At Elevated Temperatures
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 in the presence of a combustible material. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste. Combustion products will include HCl. Facility must be capable of handling halogenated materials.

EPA Hazardous Waste Number (RCRA): Not regulated

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

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

80-6300-0059-6, 80-6300-0061-2

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

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

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

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

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: 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: 2 Flammability: 1 Reactivity: 0 Protection: X - See PPE section.**

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:

Copyright was modified.

Section 8: Respiratory protection comment was added.

Section 8: Skin protection - recommended gloves information was added.

Section 8: Skin protection - recommended gloves text was added.

Section 8: Skin protection - protective clothing recommendations was added.

Section 8: Skin protection - protective clothing information was added.

Section 8: Skin protection - protective clothing text was added.

Section 8: Skin protection - protective clothing - punctuation was added.

Section 8: Skin protection - recommended gloves - punctuation was added.

Section 14: ID Number Heading Template 1 was added.

Section 14: ID Number(s) Template 1 was added.

Section 2: Ingredient table was added.

Section 8: Exposure guidelines ingredient information was added.

Section 8: Exposure guidelines legend was added.

Section 8: Exposure guidelines data source legend was added.

Section 8: Respiratory protection - recommended respirators information was deleted.

Section 8: Respiratory protection - recommended respirators was deleted.

Section 8: Respiratory protection - recommended respirators guide was deleted.

Section 8: Respiratory protection - recommended respirators punctuation was deleted.

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SCOTCHKOTE 323 Patch, Brush, and Spray Grades, Part B

MANUFACTURER: 3M

DIVISION: Corrosion Protection Products Dept

ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 07/29/2008

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Document Group: 16-0702-7

Product Use:

Intended Use: Coating
Specific Use: Part B of 2 Part Liquid Epoxy Coating System

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
P-TERT-BUTYLPHENOL	98-54-4	20 - 30
HYDROUS MAGNESIUM SILICATE	14807-96-6	20 - 30
M-XYLENE-ALPHA,ALPHA'-DIAMINE	1477-55-0	5 - 15
TRIMETHYLHEXAMETHYLENEDIAMINE	25620-58-0	5 - 15
PHENOL FORMALDEHYDE AMINE POLYMER	104242-08-2	5 - 15
4-NONYL PHENOL, branched	84852-15-3	1 - 9
POLYAMIDE	Unknown	1 - 5
PHTHALO GREEN	1328-53-6	1 - 3

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Odor, Color, Grade: Viscous, Green, Strong Amine Odor

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: May cause chemical eye burns. May cause allergic skin reaction. May cause chemical skin burns. May cause chemical gastrointestinal burns. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Skin Contact:

Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

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

May be harmful if absorbed through skin.

May be absorbed through skin and cause target organ effects.

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

During grinding, scraping, sanding:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

May be harmful if swallowed.

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.

Prolonged or repeated exposure may cause:

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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: Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water for at least 15 minutes. Get immediate 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	<i>No Data Available</i>
Flash Point	> 200 °F [<i>Test Method:</i> Pensky-Martens Closed Cup]
Flammable Limits - LEL	1 % volume
Flammable Limits - UEL	7 % volume

5.2 EXTINGUISHING MEDIA

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). Water or fog may cause frothing which can be violent, especially if sprayed into containers of hot or burning liquid

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: Combustible liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Closed containers exposed to heat from fire may build pressure and explode. There is the possibility of pressure buildup in closed containers when heated. Water spray may be used to cool these containers.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. 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. Clean up residue with detergent and water. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

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

Avoid eye contact with vapors, mists, or spray. Avoid breathing of vapors, mists or spray. Avoid breathing of vapors created during cure cycle. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe thermal decomposition products. Avoid skin contact. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid skin contact with hot material. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid contact with oxidizing agents. Contents may be under pressure, open carefully. For industrial or professional use only. Keep out of the reach of children.

7.2 STORAGE

Store away from acids. Store away from heat. Keep container in well-ventilated area. Keep container tightly closed. Store away from areas where product may come into contact with food or pharmaceuticals. Store away from flammable and combustible materials. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Provide local exhaust ventilation at transfer points. Provide appropriate local exhaust ventilation on open containers. Provide ventilated enclosure for heat curing. Provide appropriate local exhaust for molten or extruded material. Provide appropriate local

exhaust for cutting, grinding, sanding or machining. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Provide appropriate local exhaust when product is heated. Local exhaust ventilation with a minimum capture velocity of 100 linear feet per minute should be provided for applications at or above the boiling temperature. 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 with vapors, mists, or spray. The following eye protection(s) are recommended: Full Face Shield, Indirect Vented Goggles.

8.2.2 Skin Protection

Wear appropriate gloves, such as Nomex, when handling this material to prevent thermal burns. Avoid skin contact. Avoid skin contact with hot material. 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: Butyl Rubber. The following protective clothing material(s) are recommended: Apron - Neoprene.

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of vapors created during cure cycle. Avoid breathing of dust created by cutting, sanding, grinding or machining. Select one of the following NIOSH-approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half-face or full-face air purifying respirator with Organic Vapor cartridges and P95 particulate prefilters; Hood-type PAPR (powered air purifying respirator) with Organic Vapor cartridges and HEPA particulate filters. 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

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
COPPER COMPOUNDS	ACGIH	TWA, as Cu dust or mist	1 mg/m3	
COPPER COMPOUNDS	OSHA	TWA, as dust or mist	1 mg/m3	Table Z-1A
M-XYLENE-ALPHA,ALPHA'-DIAMINE	ACGIH	CEIL	0.1 mg/m3	Skin Notation*
M-XYLENE-ALPHA,ALPHA'-DIAMINE	OSHA	CEIL	0.1 mg/m3	Table Z-1A
HYDROUS MAGNESIUM SILICATE	ACGIH	TWA, respirable	2 mg/m3	Table A4
HYDROUS MAGNESIUM SILICATE	CMRG	TWA, as respirable dust	0.5 mg/m3	
HYDROUS MAGNESIUM SILICATE	OSHA	TWA, respirable	2 mg/m3	Table Z-1A

* Substance(s) 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
- 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: Viscous, Green, Strong Amine Odor
General Physical Form: Liquid
Autoignition temperature *No Data Available*

Flash Point	> 200 °F [Test Method: Pinsky-Martens Closed Cup]
Flammable Limits - LEL	1 % volume
Flammable Limits - UEL	7 % volume
Boiling point	No Data Available
Density	1.2 g/ml
Vapor Density	> 1 [Ref Std: AIR=1]
Vapor Pressure	0.05 mmHg [Test Method: Calculated] [Details: at 25C, Raoult's Law]
Specific Gravity	1.2 [Ref Std: WATER=1]
pH	Not Applicable
Melting point	No Data Available
Solubility In Water	Not Applicable
Solubility in Water	Slight (less than 10%)
Evaporation rate	< 1 [Ref Std: BUOAC=1]
Volatile Organic Compounds	12 g/l [Details: For coating mixture of Parts A and B]
Percent volatile	1.28 % volume
VOC Less H2O & Exempt Solvents	Not Applicable
Viscosity	13,000 - 20,000 centipoise [@ 72 °F] [Test Method: Brookfield]

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Strong oxidizing agents; Reducing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Ammonia	Heat
Oxides of Nitrogen	Not Specified

Hazardous Decomposition: Thermal decomposition may liberate acrylic monomers and ammonia.

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

EPA Hazardous Waste Number (RCRA): Not regulated

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

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

80-6300-0060-4, 80-6300-0062-0

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

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
4-NONYL PHENOL, branched	84852-15-3	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

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

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

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: 3 Flammability: 2 Reactivity: 0 Special Hazards: None
Corrosive: Yes

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: 3 Flammability: 2 Reactivity: 0 Protection: X - See PPE section.

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).

Reason for Reissue: The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

Revision Changes:

Section 1: Product use information was modified.

Copyright was modified.

Section 9: Vapor pressure value was modified.

Section 8: Respiratory protection comment was added.

Section 8: Skin protection - protective clothing recommendations was added.

Section 8: Skin protection - protective clothing information was added.

Section 8: Skin protection - protective clothing - punctuation was added.

Section 14: ID Number Heading Template 1 was added.

Section 14: ID Number(s) Template 1 was added.

Section 2: Ingredient table was added.

Section 15: TSCA section 12[b] text was added.

Section 8: Exposure guidelines ingredient information was added.

Section 8: Exposure guideline note was added.

Section 15: TSCA section 12[b] information was added.

Section 8: Exposure guidelines data source legend was added.

Section 8: Respiratory protection - recommended respirators information was deleted.

Section 8: Respiratory protection - recommended respirators was deleted.

Section 8: Respiratory protection - recommended respirators guide was deleted.

Section 8: Respiratory protection - recommended respirators punctuation was deleted.

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