



Material Safety Data Sheet

Copyright, 2008, 3M Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

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

Substance

Aldehydes

Condition

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.

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.

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

