



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SCOTCHKOTE 226N+ Fast (4G) and Slow (8G and 11G) Fusion Bonded Epoxy Coating
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: 09/01/2005
Supersedes Date: 07/15/2005

Document Group: 19-2402-6

Product Use:

Specific Use: Corrosion Protection Coating for Metal

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	25036-25-3	50 - 70
CALCIUM SILICATE	13983-17-0	20 - 40
DICYANDIAMIDE	461-58-5	1 - 5
TITANIUM DIOXIDE	13463-67-7	1 - 3
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOOROHYDRIN POLYMER	25068-38-6	< 1
4,4'-ISOPROPYLIDENEDIPHENOL	80-05-7	< 0.5

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Powder

Odor, Color, Grade: Green

General Physical Form: Solid

Immediate health, physical, and environmental hazards: 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.

Photosensitization: Signs/symptoms may include a sunburn-like reaction such as blistering, redness, swelling, and itching from minor exposure to sunlight.

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

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

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. 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	450 - 550 °C [<i>Details:</i> For Dust Cloud Form; determined on a range of typical coating powders]
Autoignition temperature	325 - 375 °C [<i>Details:</i> For Dust Layer Form; determined on a range of typical coating powders]
Flash Point	<i>Not Applicable</i>
Flammable Limits - LEL	35 - 55 g/m ³ [<i>Details:</i> Minimum Explosive Concentration (MEC) for dust-air mixture; determined on a range of typical coating powders.]
Flammable Limits - UEL	<i>No Data Available</i>

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).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Dust clouds of this material in combination with an ignition source may be explosive.

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. Collect as much of the spilled material as possible. Collect spilled material using a vacuum

cleaner, such as the 3M Brand Model SV - 497 - AJM, with a High Efficiency Particulate Air (HEPA) filter. WARNING ! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Use wet sweeping compound or water to avoid dusting. Sweep up. Clean up residue. 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 dust or airborne particles. Avoid eye contact with vapors, mists, or spray. Avoid breathing of airborne material. Avoid breathing of vapors created during cure cycle. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid breathing of fumes. Avoid skin contact. Avoid skin contact with hot material. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Do not spray near flames or sources of ignition. For industrial or professional use only. Keep out of the reach of children.

7.2 STORAGE

Store away from heat. Keep container in well-ventilated area. Keep container tightly closed. Store at temperatures which are below 80 degrees F (26 degrees C).

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. Provide ventilation adequate to control dust concentrations below recommended exposure limits and/or control dust. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control dust, fume, or airborne particles. 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: Fluoroelastomer (Viton).

8.2.3 Respiratory Protection

Avoid breathing of vapors created during cure cycle. Avoid breathing of fumes. 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 facepiece or fullface air-purifying respirator with organic vapor cartridges and P100 particulate prefilters, Half facepiece or fullface supplied-air respirator. 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>
4,4'-ISOPROPYLIDENEDIPHENOL	CMRG	TWA	5 mg/m ³	
TITANIUM DIOXIDE	ACGIH	TWA	10 mg/m ³	Table A4
TITANIUM DIOXIDE	CMRG	TWA, as respirable dust	5 mg/m ³	
TITANIUM DIOXIDE	OSHA	TWA, Vacated, as dust	10 mg/m ³	
TITANIUM DIOXIDE	OSHA	TWA, as total dust	15 mg/m ³	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:	Powder
Odor, Color, Grade:	Green
General Physical Form:	Solid
Autoignition temperature	450 - 550 °C [<i>Details:</i> For Dust Cloud Form; determined on a range of typical coating powders]
Autoignition temperature	325 - 375 °C [<i>Details:</i> For Dust Layer Form; determined on a range of typical coating powders]
Flash Point	<i>Not Applicable</i>
Flammable Limits - LEL	35 - 55 g/m ³ [<i>Details:</i> Minimum Explosive Concentration (MEC) for dust-air mixture; determined on a range of typical coating powders.]
Flammable Limits - UEL	<i>No Data Available</i>
Boiling point	<i>No Data Available</i>
Density	1.44 g/cm ³
Vapor Density	<i>No Data Available</i>
Vapor Pressure	<i>No Data Available</i>
Specific Gravity	1.44 [<i>Ref Std:</i> WATER=1]
pH	<i>No Data Available</i>
Melting point	<i>No Data Available</i>
Solubility In Water	<i>No Data Available</i>
Solubility in Water	Nil
Volatile Organic Compounds	0 % volume
Percent volatile	0 %
VOC Less H₂O & Exempt Solvents	0 %

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Sparks and/or flames

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance

Aldehydes
Carbon monoxide
Carbon dioxide
Ammonia
Oxides of Nitrogen

Condition

During Combustion
During Combustion
During Combustion
During Combustion
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: For quantities <100 lbs. (50kg): dispose of waste product in a sanitary landfill. For larger quantities: 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): 80-6300-0119-8, 80-6300-0120-6, 80-6300-0121-4, 80-6300-0122-2, 80-6300-0140-4, 80-6300-0141-2, CE-1007-0466-3, CE-1007-0467-1

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:

Section 14: ID Number(s) was modified.

Section 9: Density information was modified.

Section 9: Specific gravity information was modified.

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