



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Scotchkote 413 and 413 Spray Grade Fusion Bonded Epoxy Coating

**MANUFACTURER:** 3M

**DIVISION:** Corrosion Protection Products Division

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

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

**Issue Date:** 09/27/10

**Supersedes Date:** 08/18/10

**Document Group:** 05-7299-0

#### Product Use:

**Intended Use:** Coating  
**Specific Use:** Fusion Bonded Epoxy Coating for Metal Pipes

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER	25068-38-6	75 - 95
TITANIUM DIOXIDE	13463-67-7	1 - 5
POLYMERIC ADDITIVE	Trade Secret	1 - 5
EPOXY RESIN - AMINE CONDENSATE	Trade Secret	1 - 3
CHROMIUM OXIDE (CR2O3)	1308-38-9	1 - 2

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Powder

**Odor, Color, Grade:** Green Powder

**General Physical Form:** Solid

**Immediate health, physical, and environmental hazards:** Dust clouds of this material in combination with an ignition source may be explosive. 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.

**Ingestion:**

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

### 3.3 POTENTIAL ENVIRONMENTAL EFFECTS

In a standard leaching procedure (U.S. EPA TCLP), this substance does not leach any of the selected metals or hazardous substances at concentrations above the criteria set for this procedure.

## 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**

450 - 550 °C [Details: For Dust Cloud Form; determined on a range of typical coating powders.]

**Autoignition temperature**

325 - 375 °C [Details: For Dust Layer Form; determined on a range of typical coating powders.]

**Flash Point**

Not Applicable

**Flammable Limits - LEL**

35 - 55 g/m3 [Details: Minimum Explosive Concentration (MEC) for dust - air mixture; determined on a range of

**Flammable Limits - UEL**typical coating powders.]  
*Not Applicable*

## 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

### Personal precautions

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. 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.

### Environmental procedures

Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Collect as much of the spilled material as possible using non-sparking tools. Use wet sweeping compound or water to avoid dusting. Sweep up. Clean up residue.

**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

For industrial or professional use only. Avoid breathing of airborne material. Avoid skin contact. Avoid eye contact with dust or airborne particles. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid breathing of vapors created during cure cycle. Avoid eye contact with vapors, mists, or spray. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid static discharge. Do not spray near flames or sources of ignition. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not empty material near flammable solvents or in the presence of flammable vapors or flammable dust clouds.

### 7.2 STORAGE

Store away from heat. Store out of direct sunlight. Keep container tightly closed. Store at temperatures which are below 80 degrees F (27 C).

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Do not use in a confined area or areas with little or no air movement. Provide ventilation adequate to control dust concentrations below recommended exposure limits and/or control dust. Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Provide local exhaust ventilation at transfer points. Provide appropriate local exhaust when product is heated. Provide appropriate local exhaust for molten or extruded material. Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Provide appropriate local exhaust for cutting, grinding, sanding or machining. 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: 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: Butyl Rubber

Neoprene

Nitrile Rubber

Polyethylene/Ethylene Vinyl Alcohol

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

#### 8.2.3 Respiratory Protection

Avoid breathing of dust. 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: Fullface air-purifying respirator with organic vapor/acid gas cartridges and P100 particulate prefilters

Half facepiece or fullface air-purifying respirator with N95 particulate filters

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><b>Ingredient</b></u>	<u><b>Authority</b></u>	<u><b>Type</b></u>	<u><b>Limit</b></u>	<u><b>Additional Information</b></u>
CHROMIUM (III) COMPOUNDS	OSHA	TWA, as Cr	0.5 mg/m <sup>3</sup>	
TITANIUM DIOXIDE	ACGIH	TWA	10 mg/m <sup>3</sup>	
TITANIUM DIOXIDE	CMRG	TWA, as respirable dust	5 mg/m <sup>3</sup>	
TITANIUM DIOXIDE	OSHA	TWA, as total dust	15 mg/m <sup>3</sup>	

## 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 Powder
General Physical Form:	Solid
Autoignition temperature	450 - 550 °C [Details: For Dust Cloud Form; determined on a range of typical coating powders.]
Autoignition temperature	325 - 375 °C [Details: For Dust Layer Form; determined on a range of typical coating powders.]
Flash Point	Not Applicable
Flammable Limits - LEL	35 - 55 g/m3 [Details: Minimum Explosive Concentration (MEC) for dust - air mixture; determined on a range of typical coating powders.]
Flammable Limits - UEL	Not Applicable
Boiling point	Not Applicable
Density	1.2 g/cm3
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Specific Gravity	1.2 [Test Method: ASTM METHOD] [Ref Std: WATER=1]
pH	Not Applicable
Melting point	Not Applicable
Solubility in Water	Nil
Evaporation rate	Not Applicable
Volatile Organic Compounds	0 %
Kow - Oct/Water partition coef	No Data Available
Percent volatile	0 %
VOC Less H2O & Exempt Solvents	0 %
Viscosity	Not Applicable
Conditions to avoid	Sparks and/or flames

## SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

## Materials and Conditions to Avoid:

## 10.1 Conditions to avoid

Sparks and/or flames

Heat

## 10.2 Materials to avoid

None known

Hazardous Polymerization: Hazardous polymerization will not occur.

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Aldehydes	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Oxides of Nitrogen	Not Specified
Oxides of Phosphorus	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:** 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):

41-4800-0197-7, 80-6300-0092-7, 80-6300-0093-5, 80-6300-0103-2, 80-6300-0154-5, 80-6300-0155-2, 80-6300-0171-9, CE-1006-9799-0, CE-1006-9800-6, CE-1006-9801-4, CE-1007-3309-2, CE-1007-3430-6, CE-1007-3431-4

Not regulated per U.S. DOT, IATA or IMO.

*These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.*

## 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 - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
CHROMIUM OXIDE (CR <sub>2</sub> O <sub>3</sub> ) (CHROMIUM (III) COMPOUNDS)	1308-38-9	1 - 2

### 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.

### 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) Template 1 was modified.

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