



Material Safety Data Sheet

Copyright, 2012, 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: 3M Scotchkote Epoxy Coating 162CR, Light Grey (Part A)
MANUFACTURER: 3M
DIVISION: 3M United Kingdom
 Infrastructure Protection Division
ADDRESS: 3M Center, St. Paul, MN 55144-1000

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

Issue Date: 02/16/12
Supersedes Date: 12/14/11

Document Group: 26-5959-7

Product Use:

Intended Use: Coating
Specific Use: Chemical protection coating

SECTION 2: INGREDIENTS

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|---|-------------------|----------------|
| NON-HAZARDOUS MATERIALS | Mixture | 30 - 40 |
| PHENOL-FORMALDEHYDE POLYMER GLYCIDYL ETHER | 28064-14-4 | 25 - 40 |
| 4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER | 25068-38-6 | 10 - 25 |
| TITANIUM DIOXIDE | 13463-67-7 | 10 - 15 |
| ALKYL(C10-C16)GLYCIDYL ETHER | 68081-84-5 | 1 - 5 |
| CARBON BLACK | 1333-86-4 | < 0.5 |

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Thixotropic liquid

Odor, Color, Grade: Faint epoxy odour; Grey color

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: May cause allergic skin reaction. Contains a chemical or chemicals which can cause cancer.

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:

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

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

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.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Class Description</u> | <u>Regulation</u> |
|-------------------|-------------------|-------------------------------|---|
| CARBON BLACK | 1333-86-4 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |

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 | >= 400 °C |
| Flash Point | 154 °C [<i>Test Method:</i> Closed Cup] |
| 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: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Not applicable.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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.

6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Clean-up methods

Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. 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 an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS.

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. Keep out of the reach of children. For industrial or professional use only. Avoid contact with oxidizing agents. Avoid skin contact. Avoid eye contact with vapors, mists, or spray.

7.2 STORAGE

Store away from acids. Store away from oxidizing agents. Store at temperatures between 5 - 32 degrees C (40 - 90 degrees F).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

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.

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: Neoprene
Nitrile Rubber

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

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

Half facepiece or fullface air-purifying respirator with organic vapor cartridges and N95 particulate prefilters

Select and use respiratory protection to prevent an inhalation exposure based on the results of an exposure assessment. Consult with your respirator manufacturer for selection of appropriate types of respirators.

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> |
|-------------------|------------------|-------------------------|--------------|-------------------------------|
| CARBON BLACK | ACGIH | TWA, inhalable fraction | 3 mg/m3 | |
| CARBON BLACK | CMRG | TWA | 0.5 mg/m3 | |
| CARBON BLACK | OSHA | TWA | 3.5 mg/m3 | |

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: | Thixotropic liquid |
| Odor, Color, Grade: | Faint epoxy odour; Grey color |
| General Physical Form: | Liquid |
| Autoignition temperature | >= 400 °C |
| Flash Point | 154 °C [Test Method: Closed Cup] |
| Flammable Limits(LEL) | No Data Available |
| Flammable Limits(UEL) | No Data Available |
| Boiling Point | >=200 °C |
| Density | 1.83 g/ml |
| Vapor Density | No Data Available |
| Vapor Pressure | 0.01 mmHg [@ 20 °C] |

| | |
|--------------------------------|--|
| Specific Gravity | 1.83 [Ref Std: WATER=1] |
| pH | No Data Available |
| Melting point | Not Applicable |
| Solubility In Water | 0 % |
| Evaporation rate | No Data Available |
| Volatile Organic Compounds | 2.5 g/l [Details: EU Definition (Part A only)] |
| Kow - Oct/Water partition coef | No Data Available |
| Percent volatile | 0.15 % |
| Viscosity | No Data Available |

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.

10.2 Materials to avoid

Accelerators

Amines

Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Strong acids

Strong bases

Strong oxidizing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide

Carbon dioxide

Condition

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

Test Organism

,

Test Type

Result

NA % weight

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of completely cured (or polymerized) wastes in a sanitary landfill.

As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator in the presence of a combustible material.

Combustion products will include HCl. Facility must be capable of handling halogenated materials.

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):

GR-2001-0714-6

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

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.

CALIFORNIA PROPOSITION 65

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Classification</u> |
|-------------------|-------------------|-----------------------|
| CARBON BLACK | 1333-86-4 | **Carcinogen |

** WARNING: contains a chemical which can cause cancer.

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.

Revision Changes:

Section 3: Potential effects from skin contact information was modified.

Section 1: Secondary Division name was modified.

Copyright was modified.

Section 12: Ecotoxicological phrase 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 USA MSDSs are available at www.3M.com