

# Emerson & Cuming

a National Starch & Chemical Company

## MATERIAL SAFETY DATA SHEET

EMERSON & CUMING  
46 MANNING ROAD  
BILLERICA, MASSACHUSETTS 01821

IN THE EVENT OF A CHEMICAL EMERGENCY  
INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR  
ACCIDENT, NOTIFY:  
CHEMTREC USA: 800-424-9300  
INTERNATIONAL: 202-483-7616 (COLLECT)

### SECTION 1: IDENTIFICATION

**Product Name:** STYCAST® 2850FT BLACK  
**General Chemical Description:** Epoxy Resin

### SECTION 2: INGREDIENTS

<u>Hazardous Components</u>	<u>% by Weight</u>	<u>Exposure Guidelines</u>	
		<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Mineral Filler, Modifiers			
DGEBA Epoxy Resin	10-30%	NE	NE
n-Butyl Glycidyl Ether	1-10%	50 ppm	25 ppm
Carbon Black	< 0.5%	3.5 mg/m3	3.5 mg/m3

  

<u>Non-Hazardous Components</u>	<u>% by Weight</u>
Mineral Filler, Modifiers	60-90%

### SECTION 3: PHYSICAL DATA

**Boiling Point (°F):** ND  
**Vapor Pressure (mm Hg @ 25°C):** < 0.1  
**Percent Volatiles by Weight:** < 2  
**Specific Gravity (water = 1):** 2.35 - 2.45  
**Solubility in Water:** Insoluble  
**Vapor Density:** Heavier than air  
**Appearance and Odor:** Black liquid, mild odor

### SECTION 4: FIRE AND EXPLOSION HAZARD DATA

**Flash Point (°F):**  
> 200

**Flammable Limits**  
Not Established

**Extinguishing Media:**  
Use carbon dioxide, dry chemical, foam, water fog.

**Unusual Fire or Explosion Hazard:**

## STYCAST® 2850FT BLACK

Decomposition and combustion products may be toxic. Closed containers may violently rupture under fire conditions. Reaction with curing agents is exothermic; smoke or toxic fumes may be evolved if heat of reaction becomes excessive due to high curing temperatures or curing of large masses of material. See Section 5, "Hazardous Decomposition Products".

### ***Special Firefighting Procedures:***

Firefighters/rescue personnel should wear positive pressure self-contained breathing apparatus and full protective equipment. Cool exposed containers with water to prevent pressure buildup. If large quantities of material are involved, evacuate area and fight fire from a safe distance.

## **SECTION 5: REACTIVITY DATA**

### ***Product Stability:***

Product is stable under normal handling and storage conditions. Hazardous polymerization will not occur; however, review reactivity data concerning conditions to avoid and incompatible substances.

### ***Incompatibility:***

Incompatible with strong oxidizers, acids, bases; uncontrolled mixing with amines, anhydrides, mercaptans, imidazoles may cause hazardous polymerization.

### ***Hazardous Decomposition Products:***

Carbon monoxide, carbon dioxide, aldehydes, acids and other organic substances may be formed during combustion. The chemical nature and quantity of decomposition by-products will vary widely depending on the conditions of combustion.

### ***Conditions to Avoid:***

Avoid storage in open containers, exposure to open flame or uncontrolled exposure to heat, uncontrolled mixing with curing agents or exposure to incompatible substances.

## **SECTION 6: RELEASE RESPONSE DATA**

Spill response operations must be conducted in accordance with the provisions of OSHA 29 CFR 1910.120. Review the entire MSDS before proceeding with spill response.

### ***Small Spills:***

Activate available exhaust ventilation equipment in the immediate spill area. Wipe up or absorb spilled material with vermiculite or other similar material. Wash area with soapy water to remove residue. Collect absorbed material and water rinses in appropriate containers. Dispose of in accordance with current Federal, State, and local regulations.

### ***Large Spills:***

Limit access to the immediate spill area. Shut off source of the release if this can be done without risk of injury. Activate available exhaust ventilation systems in the area. Dike area to contain the spill and prevent releases to sewers, drains or other waterways. Collect spilled material for salvage/disposal. Apply absorbent material to soak up residue. Wash area with soapy water. Prevent runoff from entering waterways. Transfer absorbed material and water rinses to appropriate waste containers. Dispose of in accordance with current Federal, State and local regulations.

## **SECTION 7: HANDLING PRECAUTIONS**

The recommendations described in this section are provided as general guidance for minimizing exposure when handling this product. Because usage conditions will vary depending on customer application,

Printed: 01/03/2001

Page: 2

---

The information given and the recommendations made herein apply to our product(s) alone and are not combined with other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guaranty of accuracy is made. It is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.

specific safe handling procedures should be developed by a person knowledgeable in the intended usage conditions and equipment. Employees must be properly trained in safe handling of this product prior to use.

***Personal Protection:***

This product can cause eye irritation. Prevent eye contact through the use of chemical safety glasses, splash-proof chemical goggles, or face shield. This product can cause skin irritation and may cause allergic skin reactions. Wear appropriate protective gloves. If necessary, a proper chemical-resistant apron and additional impervious clothing should be used to prevent skin contact and contamination of clothing. Normal work clothing should be washed before re-use. Wash hands and face thoroughly after handling this product and before eating, drinking or smoking. Emergency eye wash facilities and safety shower should be available.

***Ventilation Recommendations and Respiratory Protection:***

Provide effective mechanical exhaust ventilation to draw vapors, mists or fumes generated during processing away from the worker and prevent routine inhalation. This is necessary especially during elevated temperature processing. Ventilation must be sufficient to maintain airborne levels of Section 2 ingredients below their PEL/TLV values. Use an appropriate, properly fitted respirator if exposures exceed PEL/TLV values. The type of protection selected (SCBA, air-purifying, etc.) will depend upon the conditions of use. Observe OSHA regulations for respiratory protection (29 CFR 1910.134).

***Storage:***

Store in a cool, dry location with adequate ventilation. Keep container tightly sealed when not in use. Keep away from open flames and heat sources. Consult the product Technical Bulletin for detailed storage information.

**SECTION 8: HEALTH DATA**

***Routes of Exposure:***

Skin and eye contact, inhalation of vapors.

***Medical Conditions Aggravated by Exposure:***

Exposure may aggravate preexisting skin and/or eye disorders.

***Eye Contact:***

Contains materials irritating to the eyes. Symptoms may include blurred vision, burning sensation and tearing.

***Skin Contact:***

Contains materials which cause moderate skin irritation. Prolonged or repeated exposure to the liquid may exert a defatting or drying action on the skin, possibly resulting in dermatitis. This product may cause skin sensitization/allergic skin reactions which may be severe in certain individuals; symptoms include rash, itching, hives, swelling of the extremities.

***Inhalation:***

Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely, due to the low volatility of this product.

***Ingestion:***

Harmful if swallowed.

***Chronic Health Effects:***

Although the significance is unknown, the DGEBA epoxy resin in this product has been shown to be mutagenic in some microbial tests, but has failed to show mutagenicity in others. Chromosomal aberrations were observed in cultured rat liver cells. Two-year bioassays on mice exposed by the dermal

## STYCAST® 2850FT BLACK

route to DGEBA resins yielded only very limited evidence of weak carcinogenicity. Based on this and other evidence, the International Agency for Research on Cancer (IARC) concluded in 1988 that DGEBA epoxy resins are not classifiable as carcinogens.

Recent laboratory studies on Salmonella bacterium (i.e. - Ames Test) indicated that Butyl Glycidyl Ether (BGE) may induce mutagenic changes, a possible precursor to cancer; However, subsequent laboratory cancer studies have shown no increase in carcinogenic potential resulting from BGE exposure.

The International Agency for Research on Cancer (IARC) has classified free carbon black as a Class 2B carcinogen, in that there is sufficient evidence for carcinogenicity in animals (based on inhalation studies), but evidence for carcinogenicity in humans is nonexistent. Exposure to free carbon black, however, is unlikely, unless the cured product is machined or ground in such a manner to evolve dusts; or in spray applications where vapors or fumes containing carbon black may become airborne, thus creating potential for inhalation exposure.

### **SECTION 9: FIRST AID PROCEDURES**

#### ***Eye Contact:***

Flush eyes thoroughly with water for at least 15 minutes while holding eyelids open. Get medical attention.

#### ***Skin Contact:***

Remove any contaminated clothing and flush the affected area of the skin thoroughly with plenty of water. Follow by washing with soap and water. Get medical attention if irritation persists. Do not reuse contaminated clothing until properly cleaned.

#### ***Inhalation:***

Remove victim to fresh air. Provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get immediate medical attention.

#### ***Ingestion:***

Dilute by giving plenty of water to drink, if victim is conscious and alert. Never give anything by mouth to a drowsy, unconscious, or convulsing person. Get immediate medical attention.

### **SECTION 10: ADDITIONAL INFORMATION**

#### ***Product NPCA Hazardous Material Identification System (HMIS) Rating:***

Health: 2      Flammability: 1      Reactivity: 0

#### ***TSCA Status:***

All components of this product are listed in the EPA Toxic Substance Control Act Inventory. This product contains the following substances which are subject to TSCA subject to TSCA Section 12(b) Export notification requirements:

Diglycidyl Ether of Bisphenol A (1675-54-3)

#### ***Foreign Inventory Status:***

Canadian DSL: All components listed or exempt  
European EINECS: All components listed or exempt  
Japanese MITI ENCS: All components listed  
Korean ECL: All components listed  
Australian AICS: All components listed

#### ***SARA Status:***

This product does not contain any substances regulated by the SARA Section 313 amendments to RCRA.

STYCAST® 2850FT BLACK

**D.O.T. /IATA Information:**

Resin Compound, N.O.I. - Non-Regulated

<b>Date Prepared:</b>	12/31/00	<b>Supersedes:</b>	11/9/00
<b>Document No.:</b>	150005	<b>Prepared by:</b>	David Haas
<b>Revision Information:</b>	Section 2 Component listing		
<b>Website Identifier:</b>	2850FT BLK - 150005		

**Abbreviations:**

- NA = Not Applicable
- NE = Not Established
- ND = Not Determined
- ppm = Parts per Million
- mg/m<sup>3</sup> = Milligrams per Cubic Meter
- C = Ceiling Concentration
- mppcf = Million Parts per Cubic Foot
- STEL = Short Term Exposure Limit
- f/cc = Fibers per Cubic Centimeter

SAFETY INFORMATION: (978)436-9781

ADDITIONAL MSDS: (781)828-3300