

# SAFETY DATA SHEET

PRODUCT NAME: EME-G770H  
Type C  
MSDS NO.: MSDS-EME-959  
DATE PREPARED: Jun. 3,2010 according to 2001/58/EC

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: EME-G770H  
Type C

CHEMICAL NATURE: EPOXY MOLDING COMPOUND

APPLICATION: Encapsulation of Semiconductors (or electronic devices and so forth) for electrical, physical and chemical protection.

MANUFACTURER: SUMITOMO BAKELITE CO., LTD.  
TENNOZ PARK SIDE BLDG., 5-8, HIGASHI-SHINAGAWA 2-CHOME,  
SHINAGAWA-KU, TOKYO, 140-0002 JAPAN PHONE: 81-3-5462-4267

SUPPLIER: SUMITOMO BAKELITE CO., LTD.  
TENNOZ PARK SIDE BLDG., 5-8, HIGASHI-SHINAGAWA 2-CHOME,  
SHINAGAWA-KU, TOKYO, 140-0002 JAPAN PHONE: 81-3-5462-4267

EMERGENCY ASSISTANCE (Please contact any of manufacture's following sales offices)

NAME & EMERGENCY PHONE NUMBER	ADDRESS
SUMITOMO PLASTICS AMERICA, INC. PHONE: 408-243-8402 (USA)	900 Lafayette Street Suite#510 Santa Clara, CA 95050
SUMITOMO BAKELITE SINGAPORE PTE.LTD. PHONE: 6755-5550 (SINGAPORE)	1 Senoko South Road Singapore 758069
N.V. SUMITOMO BAKELITE EUROPE S.A. PHONE: 02-709-2139 (BELGIUM)	Regus Pegasus Park Pegasuslaan 5 1831 Diegem, Belgium
SUMITOMO BAKELITE (SUZHOU) CO., LTD. PHONE: 0512-67613850 (CHINA)	140 Jinjihu Road, China-Singapore Suzhou Industrial Park, Suzhou, China, 215021
SUMITOMO BAKELITE (TAIWAN) CO., LTD. PHONE: 07-787-1285 (TAIWAN)	No.1 Hwa Syi Road, Ta Fa Industrial District, Ta Liao, Kaohsiung, Taiwan
CHEMTREC PHONE: 800-424-9300 (USA) 24 hours EVERYDAY	

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	(CAS NO.)	BY WEIGHT (%)
Epoxy Resin	(Trade secret)	1 - 5
Phenol Resin	(Trade secret)	1 - 5
Carbon Black	(1333-86-4)	0.1 - 0.5
Silica Fused	(60676-86-0)	85 - 95

Labeling according to EC directives

Hazardous components: Epoxy Resin A ( $\geq 1.0\%$ ,  $< 2.5\%$ )  
EINECS No.: 500-033-5  
Hazardous symbol: Xi (Irritant), Risk phrase: 43

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## 3. HAZARDS IDENTIFICATION

### --- EMERGENCY OVERVIEW ---

Black tablet with slight antiseptic odor. Prolonged exposure may cause skin irritation. Self extinguishing and not ordinarily an emergency problem. Epoxy Resin is a substrate known to be positive by Ames test. Water, foam, carbon dioxide and dry chemicals can be used on fire.

### POTENTIAL HEALTH EFFECTS:

- EYE : Solid or dusts may cause irritation or corneal injury due to mechanical action.
- SKIN : Prolonged exposure may cause skin irritation. A single, Prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.
- INGESTION : Small amounts swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.
- INHALATION : May cause bronchitis (SiO<sub>2</sub>).

## 4. FIRST AID MEASURES

- EYE CONTACT : Flush affected eyes with large amount of water, also under the eyelids for at least 15 minutes. Get medical attention.
- SKIN CONTACT : Wash immediately with plenty of water or shower with soap.  
If irritation occurs, get medical attention.
- INGESTION : Immediately give plenty of water. Get medical attention.
- INHALATION : Remove to fresh air in case of accidental inhalation of vapors or dusts.  
Get medical attention.

### NOTE TO PHYSICIANS

- : Treat Symptomatically.  
Treatment may vary with condition of victim and specifics of incident.

## 5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA : Suitable for water, foam, carbon dioxide or dry chemicals.
- FIRE FIGHTING EQUIPMENT : Wear full bunker gear including a positive pressure self contained breathing apparatus in any closed space.

## 6. ACCIDENTAL RELEASE MEASURES

- PERSONAL PRECAUTION : Use personal protective equipments. Avoid dust formation.
- ENVIRONMENTAL PRECAUTIONS : Do not flush into surface water or sanitary sewer system.
- METHODS FOR CLEANING UP : Clean contaminated surface thoroughly.

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## 7. HANDLING AND STORAGE

**HANDLING** : Avoid contact with eyes and skin, and avoid breathing dust or vapors. Provide appropriate exhaust ventilation at places where dust is formed.

**STORAGE** : Keep containers tightly closed in a cool, well-ventilated space.  
Keep dry and cool below 5°C for quality.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE LIMITS:

COMPONENTS	EXPOSURE GUIDELINES (mg/m <sup>3</sup> )	
	ACGIH (TLV-TWA)	OSHA (PEL)
Silica Fused	0.1 (Respirable)	80
Epoxy Resin	Not listed	Not listed
Phenol Resin	Not listed	Not listed
Carbon Black	3.5	3.5

### ENGINEERING MEASURES:

Ensure adequate ventilation, especially in confirmed areas.

### PERSONAL PROTECTIVE EQUIPMENTS:

Respiratory protection - For most conditions, no respiratory protection should be needed; however, in dusty atmospheres or insufficient ventilation, wear a suitable respiratory equipment or NIOSH // OSHA approved respirator to protect from dust.

Hand protection - Impervious gloves (chemical-resistant gloves).

Eye protection - Safety glasses with side shields.

Skin and body protection - Chemical-resistant apron.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE** : Black tablet with slight antiseptic odor.

**pH** : Not applicable

**BOILING POINT** : Not applicable

**DECOMPOSITION TEMPERATURE** : (Softening point) 75°C - 95°C

**FLASH POINT** : No information available.

**AUTOIGNITION TEMPERATURE** : No information available.

**EXPLOSION PROPERTIES** : No information available.

**VAPOR PRESSURE** : Not applicable

**VAPOR DENSITY (AIR=1)** : Not applicable

**SPECIFIC GRAVITY** : 1.8 - 2.2

**SOLUBILITY IN WATER** : Insoluble in water

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## 10. STABILITY AND REACTIVITY

### CHEMICAL STABILITY:

Stable under recommended storage condition.

### CONDITIONS TO AVOID:

Keep away from heat, moisture and sunlight for quality.

### MATERIALS TO AVOID:

Oxidizing agents, acids and alkali.

### HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon dioxide. Thermal decomposition can lead to release of irritating gases and vapors such as methane, ammonia, Phenol, carbon monoxide and hydrocarbon compounds.

## 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : Silica fused: oral-rat LD50: 3,160 mg/kg  
Epoxy resin: oral-rat LD50: 11 g/kg

LOCAL EFFECTS : No information available.

SENSITIZATION : No information available.

CHRONIC TOXICITY : Potential carcinogen by IARC;  
Silica fused: Group 3  
Carbon black: Group 2B

## 12. ECOLOGICAL INFORMATION

MOBILITY : No data is available on product itself.

ECOTOXICITY : Waste water from subsequent processing should be given appropriate treatment in line with local regulations.

## 13. DISPOSAL INFORMATION

### WASTE FROM RESIDUES:

Can burn in a chemical incinerator equipped with an afterburner and scrubber in compliance with government or local disposal regulations, also contaminated packaging do so.

## 14. TRANSPORT INFORMATION

Not a hazardous material for DOT (Department of transportation) shipping.

Not dangerous by any mode of international transport.

UN No.: None assigned.

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## 15. REGULATORY INFORMATION

### TSCA (TOXIC SUBSTANCES CONTROL ACT):

The ingredients of this product are all on the 8(b) inventory list.

### EINECS (EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES):

This product complies with the provisions of the European Inventory.

EINECS No.	Silica Fused	262-373-8
	Phenol Resin	Monomers are all on the inventory list.
	Carbon Black	215-609-9
NLP No.	Epoxy Resin	500-033-5

### Labeling according to EC Directives:

Hazard Symbol:	Xi-Irritant
Risk Phrase:	R43-May cause sensitization by skin contact.
Safety Phrase:	none

## 16. OTHER INFORMATION

**DISCLAIMER:** The information present herein was prepared for your reference to be best of knowledge. It is given in good faith but no warranty expressed or implied is made.

**DATA PREPARED BY:** SUMITOMO BAKELITE CO., LTD.  
QA DEPARTMENT, UTSUNOMIYA PLANT