

SAFETY DATA SHEET

PRODUCT NAME: EME-6300
Type H
MSDS NO.: MSDS-EME-101
DATE PREPARED: Apr.24,2007 according to 2001/58/EC

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: EME-6300
Type H

CHEMICAL NATURE: EPOXY MOLDING COMPOUND

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 (%) |
|------------------------|--------------|---------------|
| Silica Fused | (60676-86-0) | 60 - 90 |
| Epoxy, Cresol Novolac | (29690-82-2) | 10 - 30 |
| Phenol Novolac | (9003-35-4) | 5 - 10 |
| Antimony Trioxide | (1309-64-4) | 1 - 5 |
| Brominated Epoxy Resin | (40039-93-8) | 1 - 3 |
| Carbon Black | (1333-86-4) | 0.1 - 0.5 |

Labeling according to EC directives

Hazardous components: Antimony Trioxide ($\geq 1\%$)
EINECS No.: 215-175-0
Hazardous symbol: Xn (Harmful), Risk phrase: 40

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3. HAZARDS IDENTIFICATION

--- EMERGENCY OVERVIEW ---

Black pellet or powder with slight antiseptic odor. Prolonged exposure may cause skin irritation. Self extinguishing and not ordinarily an emergency problem. 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 occur rhinitis, allergic dermatitis (Sb_2O_3) and may cause bronchitis (SiO_2).

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 10 °C for quality.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

| COMPONENTS | EXPOSURE GUIDELINES (mg/m ³) | |
|------------------------|--|-------------|
| | ACGIH (TLV-TWA) | OSHA (PEL) |
| Silica Fused | 0.1 (Respirable) | 80 |
| Epoxy, Cresol Novolac | Not listed | Not listed |
| Phenol Novolac | Not listed | Not listed |
| Antimony Trioxide | 0.5 (as Sb) | 0.5 (as Sb) |
| Brominated Epoxy 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 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 pellet or powder with slight antiseptic odor.

PH : Not applicable

BOILING POINT : Not applicable

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

TEMPERATURE

FLASH POINT : None

AUTOIGNITION TEMPERATURE : No information available.

EXPLOSION PROPERTIES : No information available.

VAPOR PRESSURE : Not applicable

VAPOR DENSITY (AIR=1) : Not applicable

SPECIFIC GRAVITY : 1.7 - 1.9

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
Antimony trioxide: oral-rat LD50: >34,600 mg/kg

LOCAL EFFECTS : No information available.

SENSITIZATION : No information available.

CHRONIC TOXICITY : Potential carcinogen by IARC;
Silica fused: Group 3
Antimony trioxide: Group 2B
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 |
| | Epoxy, Cresol Novolac | Monomers are all on the inventory list. |
| | Phenol Novolac | Monomers are all on the inventory list. |
| | Brominated Epoxy Resin | Monomers are all on the inventory list |
| | Antimony Trioxide | 215-175-0 |
| | Carbon Black | 215-609-9 |

Labeling according to EC Directives:

Hazard Symbol: Xn-Harmful
Risk Phrase: R40-Limited evidence of a carcinogenic effect.
Safety Phrase: S22-Do not breath dust.
S36/37-Wear suitable protective clothing and gloves.

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