

SAFETY DATA SHEET

1. Product and company identification

Product name SUMIKON® EME-G700LA Type L -A

Company information

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Product uses Epoxy Molding Compound for Encapsulant of Semiconductors.

Intended use For Semiconductors.

2. Hazards identification

GHS classification

The product is not classified according to GHS.

*Hazards not stated here are "Not classified", "Not applicable" or "Classification not possible".

GHS label elements

Symbols None.

Signal words None.

Hazard statement None.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response IF exposed or concerned: Get medical advice/attention.

Storage Store in accordance with local/regional/national/international regulation.

Disposal Dispose of contents/container (in accordance with related regulations).

3. Composition/information on ingredients

Chemical Name	CAS #	Percentage
Epoxy Resin	Trade Secret	5 - 10
Phenol Resin	Trade Secret	1 - 5
Silica(Amorphous) A	60676-86-0	70 - 80
Silica(Amorphous) B	7631-86-9	5 - 10
Carbon Black	1333-86-4	0.1 - 1

Composition comments Silica(Amorphous) of Raw material contains a very slight Silica(Crystal).

4. First aid measures

First aid measures for different exposure routes

Inhalation	If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Rinse skin with water/shower.
Eye contact	Rinse with water.
Ingestion	If ingestion of a large amount does occur, call a poison control centre immediately.

Most important symptoms and effects Not available.

Personal protection for first-aid responders First aid personnel must wear protective gloves/protective clothing/eye protection/face protection. IF exposed or concerned: Get medical advice/attention.

Notes to physician Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Extinguishing media to avoid	None known.
Specific hazards during fire fighting	Development of hazardous combustion gases or vapours possible in the event of fire.
Special fire fighting procedures	Cool containers exposed to flames with water until well after the fire is out.
Protection of fire-fighters	Wear suitable protective equipment. Use personal protective mask and fight fire from upwind, to avoid fumes upon combustion.

6. Accidental release measures

Personal precautions	Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.
Environmental precautions	Not available.
Spill cleanup methods	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect dust using a vacuum cleaner equipped with HEPA filter. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water. For waste disposal, see section 13.

7. Handling and storage

Handling

Technical measures	None known.
Local and general ventilation	Provide adequate ventilation. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.
Precautions	Keep formation of airborne dusts to a minimum. In case of insufficient ventilation, wear suitable respiratory equipment.
Safe handling advice	Do not breathe dust. Avoid contact with eyes. Avoid prolonged exposure.

Storage

Technical measures	Guard against dust accumulation of this material.
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Suitable storage conditions

Store in a well-ventilated place. Keep container tightly closed. Guard against dust accumulation of this material.
Keep dry and cool below 5°C for quality.

Safe packaging materials

None known.

8. Exposure controls/personal protection

Exposure limits**Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)**

Components	Type	Value
Carbon Black (CAS 1333-86-4)	TWA	3.5 mg/m ³

Occupational exposure limits**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Carbon Black (CAS 1333-86-4)	TWA	3 mg/m ³	Inhalable fraction.

Engineering measures

Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.
If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn.

Personal protective equipment**Respiratory protection**

Wear respirator with dust filter.

Hand protection

Use protective gloves as required.

Eye protection

Use tight fitting goggles if dust is generated.

Skin and body protection

Use personal protective equipment as required.

Hygiene measures

Do not breathe dust. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practices.

9. Physical and chemical properties

Appearance**Physical state**

Solid.

Form

Tablet. Powder.

Colour

Black.

Odour

Epoxy.

Odour threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Boiling point, Initial boiling point, and boiling range

Not available.

Flash point

Not available.

Auto-ignition temperature

Not available.

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Vapour pressure

Not available.

Vapour density

Not available.

Evaporation rate

Not available.

Specific gravity

1.8 - 2.2

Relative density

Not available.

Solubility

Not available.

Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.

10. Stability and reactivity

Stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Avoid spread of dust. Keep away from heat, moisture and sunlight for quality.
Incompatible materials	Strong acids, alkalies and oxidizing agents.
Hazardous decomposition products	No dangerous reaction known under conditions of normal use.

11. Toxicological information

Components	Test results
Carbon Black (1333-86-4)	Acute Oral LD50 Rat: > 8000 mg/kg
Silica(Amorphous) A (60676-86-0)	Acute Oral LD50 Rat: > 22500 mg/kg
Silica(Amorphous) B (7631-86-9)	Acute Oral LD50 Rat: >= 22500 mg/kg
Routes of exposure	Inhalation.
Symptoms	Not available.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Dust in the eyes will cause irritation.
Respiratory sensitiser	Not available.
Skin sensitiser	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Risk of cancer cannot be excluded with prolonged exposure.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Carbon Black (CAS 1333-86-4)	2B Possibly carcinogenic to humans.
Silica(Amorphous) A (CAS 60676-86-0)	3 Not classifiable as to carcinogenicity to humans.
Silica(Amorphous) B (CAS 7631-86-9)	3 Not classifiable as to carcinogenicity to humans.
Toxic to reproduction	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	There are no data on the ecotoxicity of this product.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation	Not available.
Mobility in soil	Not available.
Other hazardous effects	Not available.

13. Disposal considerations

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
Local disposal regulations	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Special transport precautions and conditions	Keep containers tightly closed. And take care leaks, spills or collapse of cargo, not to avoid damage of containers. Keep cool below 5°C.

15. Regulatory information

Applicable regulations	This material safety data sheet was prepared in accordance with the Rules on Hazardous Communication of Dangerous Materials and Toxic Materials. Additional information is given in the Safety Data Sheet.
Taiwan Hazard - Toxic Materials: Classification	
Silica(Amorphous) A (CAS 60676-86-0)	Other designated chemical
Silica(Amorphous) B (CAS 7631-86-9)	Other designated chemical

16. Other information

References	NLM: Hazardous Substances Data Base HSDB® - Hazardous Substances Data Bank IARC (vol. 1~100A) ACGIH (2011) Taiwan. CNS15030 Z1051: Classification and Labeling of Chemicals UN. Globally Harmonized System of Classification and Labelling of Chemicals (GHS) ST/SG/AC.10/30/Rev.3 Japan. GHS Classifications of Regulated Chemicals (NITE)
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Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available. SUMITOMO BAKELITE CO., LTD. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.
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