PRODUCT NAME: "SUMIKON®" EME-G631H

MSDS NO.: MSDS-EME-2260 DATE PREPARED: March,22,2013

1	CHEMICAL	PRODUCT	AND	COMPANY	<b>IDENTIFICATION</b>
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PRODUCT NAME: "SUMIKON®" EME-G631H

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

Ta Liao, Kaohsiung, Taiwan

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.	No.1 Hwa Syi Road, Ta Fa Industrial District,

## 2. HAZARDS IDENTIFICATION

CHEMTREC PHONE: 800-424-9300 (USA)

PHONE: 07-787-1285 (TAIWAN)

GHS-Classification:

24 hours EVERYDAY

Serious eye damage/eye irritation Category2B Germ cell mutagenicity Category2 Carcinogenicity Category1

**GHS-Labeling** 





Danger

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### Hazard Statement: :

Causes serious eye irritation May cause genetic deficiencies

May cause cancer

### Precaution Statement:

Use only in well-ventilated area

Avoid breathing dust/fume/gas/mist/vapours/spray

Avoid contact skin

Wear protective gloves/protective clothing/eye protection/face protection.

Wash ... thoroughly after handling

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	(CAS NO.)	BY WEIGHT (%)
Epoxy Resin A	(Trade Secret)	1 – 5
Epoxy Resin B	(Trade Secret)	1 - 5
Phenol Resin	(Trade Secret)	2 - 8
Carbon black	(1333-86-4)	0.1 - 0.5
Silica fused	(60676-86-0)	65 - 85
Silica fused	(7631-86-9)	5 - 15
Silica, crystalline *	(14808-60-7)	0.1 - 0.5

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### 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 : Wash immediately with plenty of water or shower with soap.

CONNTACT 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.

#### SPECIAL 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.

Specific hazards :Combustion gas contains carbon mono oxide.

Specific methods :Wear protective equipment. Evacuate the people from leeward side, and

extinguish the fire from windward.

Protection of firefighters :Wear full bunker gear inducing positive 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 swear system.

METHODS FOR CLEANING UP : Clean contaminated surface thoroughly.

### 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.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **EXPOSURE LIMITS:**

## EXPOSURE GUIDELINES (mg/m<sup>3</sup>)

COMPONENTS	ACGIH (TLV-TWA)	OSHA (PEL)
Silica Fused	0.1 (Respirable)	80
Silica, crystalline, quarts	0.1 (Respirable)	10 (Respirable), 30 (Total)
Epoxy Resin A	Not listed	Not listed
Epoxy Resin B	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

Odour : Slight antiseptic odor

Odour threshold : None

pH : Not applicable

Melting point/freeaing point (Softening point) 75°C - 95°C

Initial boiling point and boiling range : None Flash point : None

Evaporation rate : Not applicable Flammability(solid,gas) : Flame retardance Upper/lower flammability or : Not applicable

explosive limits

Vapor pressure : Not applicable
Vapor density : Not applicable
Relative density : 1.8 - 2.2

Solubitity(ies) : Insoluble in water

Partition coefficient:n-octanol/water : No information available.

Auto-ignition temperature : No information available.

Decomposition temperature : No information available.

Viscosity : Not applicable

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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.

#### MATRIALS 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

No data is available on product itself.

Acute toxic substance: Silica fused: oral-rat LD50: 3,160mg/kg

Epoxy resin A: oral-rat LD50: >5,000 mg/kg Epoxy resin B: oral-rat LD50: >1,000 mg/kg

Skin corrosive /Irritating substance: Not applicable

Substance causing serious eye damage or irritation: Silica fused

Respiratory hypersensitive substance: Not applicable Skin hypersensitive substance: Not applicable

Carcinogenic substance: Silica fused: Group 3

Carbon black: Group 2B Silica, crystalline \* Group 1A

\*:Remaining as impurity of Silica fused

Germ cell mutagenic substance: Epoxy resin A Reproduction toxic substance: Not applicable

Specific target organ/systemic toxicity substance (onetime exposure): Not applicable Specific target organ/systemic toxicity substance (repeated exposure): Not applicable

Aquatic environment hazard substance: Not applicable

## 12. ECOLOGICAL INFORMATION

Aquatic/terrestrial ecology toxicity:

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

Residual and degradability: No data is available on product itself. Biological concentration: No data is available on product itself.

Soil mobility: No data is available on product itself.

Other hazardous effects: No data is available on product itself.

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### 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

U.N. number: None assigned.
 U.N. proper shipping name: Not applicable
 Transportation danger classes: None assigned
 Container classes: None assigned

Marine contamination substance: No data is available on product itself.

Whether the user needs to know about

the to transportation or transportation Transport under 5 °C or below for quality. Avoid leak, spilling and

method or special safety measures: collapse of cargo.

## 15. REGULATORY INFORMATION

Applicable regulations:

<Ref> Each substance

Standards on Workplace Atmosphere of Dangerous and Hazardous Materials

Carbon Black

### 16. OTHER INFORMATION

Reference document: ACGIH (2006)

OSHA (USA CFR 29, 2006)

IARC (Vol. 1 ~ 88)

NTP (11th)

RTECS (2006, Internet)

International Chemical Safety Cards (ICSCs)

Supplier's Material Safety Data Sheet

Data prepared by: SUMITOMO BAKELITE CO., LTD.

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2013.3.22

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knowledge. It is given in good faith but no warranty expressed on implied is made.