
MATERIAL SAFETY DATA SHEET

SECTION 1. COMPANY IDENTIFICATION

COMPANY IDENTIFICATION

<JAPAN>

MANUFACTURER'S NAME: Shin-Etsu Chemical Co., Ltd.

ADDRESS: 6-1, 2-Chome, Ohtemachi, Chiyodaku, Tokyo, JAPAN

<MALAYSIA>

MANUFACTURER'S NAME: Shin-Etsu Electronics(M) Sdn. Bhd.

ADDRESS: Lot50, Jalan Serendah 26/17, HICOM Industrial
Estate, 40000 Bandaraya Shah Alam, Selangor,
Malaysia

EMERGENCY TELEPHONE NUMBER:

480-893-8898(Shin-Etsu MicroSi, Inc.)

800-424-9300(CHEMTREC)(24hrs)(Washington, D.C. USA)

03-51921075 (Shin-Etsu Electronics(M) Sdn. Bhd.)

(Direct line)(Office hrs)

03-51921081 (Shin-Etsu Electronics(M) Sdn. Bhd.)(24hrs)

TELEPHONE NUMBER FOR INFORMATION:

03-3246-5231(Tokyo, JAPAN)

602-893-8898(Shin-Etsu MicroSi, Inc.)

03-51921075 (Shin-Etsu Electronics(M) Sdn. Bhd.)

(Direct line)(Office hrs)

03-51921081 (Shin-Etsu Electronics(M) Sdn. Bhd.)(24hrs)

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BASE NO 1

PRODUCT NAME :

KMC-184-7UF

PRODUCT CLASSIFICATION:

Epoxy Molding Compound

SECTION 2. COMPOSITION

SINGLE OR MIXTURE:

Mixture

CHEMICAL IDENTIFICATION:

Epoxy resin mixture

HAZARDOUS COMPONENT(S)/(CAS No.):

Amorphous silica/(Confidential) : ca.80 %

Epoxy resin compound/(Confidential) : ca. 5 %

Antimony trioxide/(1309-64-4)[Poison] : ca. 2 %
Carbon black/(1333-86-4)[Carcinogen] : ca.0.3%
(See Section 8 of this MSDS for Exposure Guideline)
(See Section 11 of this MSDS for Carcinogenicity)

SECTION 3. HAZARDS IDENTIFICATION

HAZARDS CLASSIFICATION:

None (based on IMO)
None (based on DOT)

FIRE AND EXPLOSION:

May cause dust explosion

POTENTIAL HEALTH EFFECT:

INHALATION ; May cause slight irritation to nose and
throat by generated dust.
SKIN contact ; No significant effect.
EYES contact ; May cause mechanical eyes irritation.
INGESTION ; No information is available.

SECTION 4. FIRST AID MEASURES

INHALATION ; Remove to fresh air, and then gargle with
water.
SKIN contact ; Remove product from skin, and wash with
detergent.
EYES contact ; Immediately flush with water for at least
15 minutes.
INGESTION ; Wash out mouth with water provided person is
conscious. Never give anything by mouth to an
unconscious person. Call a physician
immediately.

SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT(method used):

Not applicable

FLAMMABLE LIMITS:

LOWER: Not measured(Dust explosion)
UPPER: Not measured(Dust explosion)

EXTINGUISHING MEDIA:

Every extinguishing media

SPECIAL FIRE FIGHTING PROCEDURE:

None

UNUSUAL FIRE AND EXPLOSION HAZARD:

Burning can produce hydrogen bromide, a toxic and corrosive gas.
May cause dust explosion.

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEP TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

- Wear appropriate protective equipment.
 - Contain the spill or leak.
 - Place in container.
 - Avoid raising dust.
-

SECTION 7. HANDLING AND STORAGE

PRECAUTION TO BE TAKEN IN HANDLING AND STORING:

- Keep container closed when not in use.
 - Store in a cool place(Qualitatively under 0 degrees C).
 - Keep away from heat, sparks and flame.
 - Do not lay the container on its side.
 - Avoid contact with eyes and prolonged or repeated skin contact.
 - Use with adequate ventilation.
 - Do not inhale dust.
 - Keep out of reach of children.
 - * * * * * Information about the emptied container * * * * *
 - Do not re-use this container.
 - Keep away from heat, sparks and flame.
 - Do not puncture or cut this container, and do not weld on or near this container.
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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

- ACGIH TLV-TWA : 0.1mg/m3, (RESPIRABLE DUST),
- OSHA PEL : 8H TWA 10mg/m3/%SiO2+2, (RESPIRABLE DUST)
[Amorphous silica]
- ACGIH TLV-TWA : 0.5mg/m3(Sb)(SUSPECTED CARCINOGEN),
- OSHA PEL : 8H TWA 0.5mg/m3(Sb) [Antimony trioxide]
- ACGIH TLV-TWA : 3.5mg/m3(C)(SUSPECTED CARCINOGEN),
- OSHA PEL : 8H TWA 3.5mg/m3(C) [Carbon black]

RESPIRATORY PROTECTION(specify type):

- Dust respirator

VENTILATION:

- LOCAL EXHAUST: Required
- MECHANICAL(general): Adequate ventilation system
- SPECIAL: Unknown
- OTHER: Unknown

PROTECTIVE GLOVES:

- Plastic film or rubber gloves

EYE PROTECTION:

- Safety glasses or face shield

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Eyewash equipment

WORK/HYGIENIC PRACTICES:

Keep away from heat, sparks and flame.

Do not inhale dust.

Avoid contact with eyes and prolonged or repeated skin contact.

Wash hands and gargle after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:

Not applicable

VAPOR PRESSURE:

Not applicable

VAPOR DENSITY(air=1):

Not applicable

SPECIFIC GRAVITY:

1.89 (25 degrees C) (true specific gravity)

MELTING POINT:

Not applicable

EVAPORATION RATE:

Not applicable (Butyl Acetate=1)

SOLUBILITY IN WATER:

Not soluble

APPEARANCE(color):

Black

APPEARANCE(form):

Granules

ODOR:

Odorless

SECTION 10. STABILITY AND REACTIVITY

STABILITY:

Stable

CONDITION TO AVOID:

Heating, but no hazard

INCOMPATIBILITY(material to avoid):

None

HAZARDOUS DECOMPOSITION OR BY-PRODUCT:

None

HAZARDOUS POLYMERIZATION:

Will not occur

CONDITION TO AVOID:

None

SECTION 11. TOXICOLOGICAL INFORMATION

SKIN IRRITATION:

No information is available.

EYE IRRITATION:

No information is available.

ACUTE TOXICITY(LD50):

LD50(Oral/Rat) : >2000mg/kg [Epoxy resin compound]

LD50(Oral/Rat) : 20g/kg [Antimony trioxide]

ACUTE TOXICITY(LC50):

No information is available.

SUBACUTE TOXICITY:

NOEL : 1000mg/kg/day 28days(rat) [Epoxy resin compound]

CHRONIC TOXICITY:

No information is available.

CARCINOGENICITY:

NTP:Not listed, IARC:Listed, OSHA REGULATED:Not listed

IARC:Possibly carcinogenic to humans(Group 2B)

[Antimony trioxide].

IARC:Possibly carcinogenic to humans(Group 2B)[Carbon black]

MUTAGENICITY:

Positive(Bacteria), Positive(Chromosome analysis)

[Epoxy resin compound]

OTHER INFORMATION:

This product contains the epoxides. It is known that epoxides may be mutagenic, oncogenic, and may cause adverse male reproductive effects.

SECTION 12. ECOLOGICAL INFORMATION

BIODEGRADATION:

No biodegradation [Epoxy resin compound]

BIOACCUMULATION:

Bioconcentration potential was low in Carp.

[Epoxy resin compound]

AQUATIC TOXICITY:

TLm(Oryzias latipes) : >300ppm/48Hr [Epoxy resin compound]

OTHER INFORMATION:

None

SECTION 13. DISPOSAL CONSIDERATIONS

After hardening by heating, can be land-filled.

Observe all federal, state, and local laws.

SECTION 14. TRANSPORT INFORMATION

UN No.:



None
 IMO CLASSIFICATION AND CLASS:
 None
 PACKAGING GROUP:
 None
 PROPER SHIPPING NAME:
 None
 TECHNICAL SHIPPING NAME:
 None
 MARINE POLLUTANT:
 None
 DOT REPORTABLE QUANTITY(49CFR 172.101, APP.) :
 HAZARD SUBSTANCE(S) NAME / (CAS No.), CONTENTS AND RQ
 Antimony trioxide/(1309-64-4), ca. 2 % : 1000 lbs(454kg)

SECTION 15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT(TSCA) STATUS:
 Listed on the TSCA Inventory.
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SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986(SARA)
 TITLE III SECTION 313 SUPPLIER NOTIFICATION:
 This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the emergency planning and community Right-To-Know Act of 1986 and 40 CFR 372.
 This information must be included in all MSDS's that are copied and distributed for the material.
 The toxic chemical(s) contained in this product are:
 CHEMICAL NAME/(CAS No.) AND CONTENTS
 Antimony trioxide/(1309-64-4) : ca. 2 %
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CALIFORNIA PROPOSITION 65:
 This regulation requires a warning for California Proposition 65 Chemical(s) under the statute.
 The California Proposition 65 Chemical(s) contained in this product are:
 CHEMICAL NAME/(CAS No.) AND CONTENTS
 Antimony trioxide/(1309-64-4) : ca. 2 %

SECTION 16. OTHER INFORMATION

For Industrial Use Only
 Do not inhale exhaust gas at curing.
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This materials safety data sheet is offered solely for your information, consideration and investigation.
 The data described in this MSDS consist of data on literature,

our acquisitional data and analogical inference by data of similar chemical substance or product.

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