



SAFETY DATA SHEET

1. Identification

Product identifier SWC-7200UF

Other means of identification

Sales Code MIEWMS

Recommended use of the chemical and restrictions on use

Recommended use SWC
Encapsulation material for LED SWC
Encapsulation material for LED

Recommended restrictions Industrial use only.

Manufacturer/Importer/Supplier/Distributor information

MANUFACTURER

COMPANY NAME Shin-Etsu Chemical Co., Ltd.
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SUPPLIER

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2. Hazards identification

GHS classification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

GHS label elements, including precautionary statements

Pictograms None.
Signal word None.
Hazard statements None.
Other hazards which do not result in classification None known.
Supplemental information None.

3. Composition/information on ingredients

Substance or mixture Mixture

Chemical name	Common name and synonyms	CAS Number	Concentration (%)
Crystalline free silica		Proprietary	80 - 90

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact Wash skin with soap and water. Get medical attention if irritation develops and persists.
Eye contact Rinse immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion Rinse mouth. Get medical attention immediately.
Most important symptoms/effects, acute and delayed Dusts may irritate the respiratory tract, skin and eyes.

Indication of immediate medical attention and special treatment needed Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical If occur dust of large volumes, may cause dust explosion. By heating and fire, harmful vapors/gases may be formed.

Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.

Special protective equipment and precautions for firefighters Firefighters must use standard protective equipment including flame retardant coat, helmet, gloves, rubber boots, and self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits. Wear appropriate personal protective equipment.

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up Eliminate sources of ignition. Pick up and arrange disposal without creating dust.

Never return spills in original containers for re-use.

7. Handling and storage

Precautions for safe handling Provide adequate ventilation. Use adequate ventilation when this product is heated at approximately 150 °C (300 °F) and above in the presence of air. Use care in handling/storage. Keep formation of airborne dusts to a minimum. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. When using, do not eat, drink or smoke. Do not breathe dust. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure.

Conditions for safe storage, including any incompatibilities Guard against dust accumulation of this material. Store in a well-ventilated place. Keep container tightly closed. Keep out of the reach of children. Store in a cool, dry place out of direct sunlight. (Qualitatively below 5 degrees C) Keep in original container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

Singapore. PELs. (Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order)

Components	Type	Value	Form
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Crystalline free silica	TWA	0.1 mg/m ³	Respirable dust.
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Control parameters/Occupational exposure limits

ACGIH

Components	Type	Value	Form
Crystalline free silica	TWA	3 mg/m ³	Respirable dust
		10 mg/m ³	Inhalable dust

Appropriate engineering control measures Provide adequate general and local exhaust ventilation. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves.

Other Wear suitable protective clothing.

Respiratory protection Wear respirator with dust filter. If ventilation is insufficient when heating use chemical respirator with organic vapor cartridge.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Do not breathe dust. Avoid contact with skin. Avoid contact with eyes. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice. This product can generate formaldehyde at approximately 150 °C (300 °F) and above in the presence of air. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant and potential cancer hazard. So, use adequate ventilation or wear protective equipment such as gloves, goggles, organic vapor respirator or protective clothing when this product is heated at approximately 150 °C (300 °F) and above in the presence of air.

9. Physical and chemical properties**Appearance**

Form	Tablet
Color	White.
Odor	Odorless
Odor threshold	Not available.
pH	Not measurable (Refer to water solubility)
Melting point/freezing point	No data
Initial boiling point and boiling range	No data
Flash point	Not applicable
Evaporation rate	Not applicable (Butyl Acetate=1)
Flammability (solid, gas)	Not applicable.
Flammability limit - lower (%)	No data (Dust explosion)
Flammability limit - upper (%)	No data (Dust explosion)
Explosive limit - lower (%)	No data (Dust explosion)
Explosive limit - upper (%)	No data (Dust explosion)
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	1.94 (25 °C)
Solubility(ies)	
Solubility (water)	Not soluble
Partition coefficient (n-octanol/water)	Not applicable
Auto-ignition temperature	No data
Decomposition temperature	Not available.
Viscosity	Not applicable
Other data	
Molecular weight	Not applicable

10. Stability and reactivity

Reactivity	No hazardous reaction known under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Not available.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde .

11. Toxicological information**Information on likely routes of exposure**

Inhalation	Dust may irritate respiratory system.
Skin contact	Dust or powder may irritate the skin.
Eye contact	Dust may irritate the eyes.
Ingestion	Expected to be a low ingestion hazard.

Acute toxicity	None known.
Symptoms	Dusts may irritate the respiratory tract, skin and eyes.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Not available.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Crystalline free silica (CAS Proprietary)	3 Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Chronic effects	Not available.
Other information	This product can generate formaldehyde at approximately 150 °C (300 °F) and above in the presence of air. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant and potential cancer hazard. So, use adequate ventilation or wear protective equipment such as gloves, goggles, organic vapor respirator or protective clothing when this product is heated at approximately 150 °C (300 °F) and above in the presence of air.

12. Ecological information

Ecotoxicity	None known.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Mobility in general	No data available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal methods/information	Heat-cure and dispose by landfill. Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Not available.

14. Transport information

ADR	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	This product is not intended to be transported in bulk.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question	
Controlled Narcotic Drugs (Misuse of Drugs Act, First Schedule, Part I, II & III)	Not regulated.
Controlled Specified Drugs (Misuse of Drugs Act, Fourth Schedule)	Not regulated.

Prior Informed Consent (PIC) Substances (Environment Protection and Management Act, 2nd Schedule, Part 1, Jul. 1, 2013)

Not regulated.

Chemical Weapons Prohibition (Act)

Not applicable.

Environmental Protection and Management (Hazardous Substances) Regulations

Not applicable.

Environmental Public Health Act

Not applicable.

International regulations**Montreal Protocol**

Not applicable.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information**References**

HSDB® - Hazardous Substances Data Bank
 IARC Monographs. Overall Evaluation of Carcinogenicity
 National Toxicology Program (NTP) Report on Carcinogens
 ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
 NLM: Hazardous Substances Data Base
 European Chemicals Agency's dissemination website for registered substances
 SS 586: Specification for hazard communication for hazardous chemicals and dangerous goods.
 - Part 3: Preparation of safety data sheets (SDS)
 Part 3 of Annex VI to Regulation (EC) No. 1272/2008
 Chemical Risk Information Platform (CHRIP) provided by National Institute of Technology and Evaluation
 C&L Inventory maintained by European Chemicals Agency

Disclaimer

This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

This product has been designed, manufactured and developed solely for general industrial use only. This product is not designed for, intended for use as, or suitable for, medical, surgical or other particular purposes. Users have the sole responsibility and obligation to determine the suitability of this product for any application, to make preliminary tests, and to confirm the safety of this product for their use. Users must never use this product for the purpose of implantation into the human body and/or injection into humans.

Issue date

03-11-2020

Key/legend

Not applicable.