

MATERIAL SAFETY DATA SHEET

HJSIL®
(EC 1907/2006)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name	Silicone Dioxide
Synonyms	Silicon Dioxide, Synthetic Silica, Chemically Prepared Silica
Validity	HJSIL 150, HJSIL 200, HJSIL 300, HJSIL 380, HJSIL R110, HJSIL R110H, HJSIL R272, HJSIL R274, HJSIL R612, HJSIL R620, HJSIL R622, HJSIL R6200
Application	For industrial use only Rheology control, reinforcement, free flow agent in coatings, adhesives and other applications
Company	Henan Minmetals East Silicon Industry Co., Ltd. Wei'er Road, Jiaozuo City, Henan Province, P.R.China 454000
Telephone	+86 391 3565627
Fax	+86 391 3565657

2. HAZARDS IDENTIFICATION

Indication of danger:

Not a hazardous substance or preparation according to the Global Harmonized System (GHS)

Principle routes of exposure:

Inhalation, Skin contact, Eye contact

POTENTIAL HEALTH EFFECTS

a. Eye contact:

May cause mechanical irritation. Irritating, but will not permanently injure eye tissue. Low hazard for usual industrial or commercial handling.

b. Skin contact:

Repeated exposure may cause skin dryness or cracking.

c. Inhalation:

Dust may be irritating to respiratory tract. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

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d. Ingestion:

Health injuries are not known or expected under normal use. Low hazard for usual industrial or commercial handling.

e. Carcinogenic Effects:

Does not contain any substances greater than 0.1% listed by

- IARC (International Agency for Research on Cancer),
- NTP (National Toxicology Program),
- OSHA(Occupational Safety and Health Administration),
- ACGIH (American Conference for Governmental Industrial Hygienists),
- EU (European Union).

f. Target Organ Effects:

Lungs

g. Medical Conditions Aggravated by Exposure:

Asthma, Respiratory disorder

h. Potential Environmental Effects:

No special environmental precautions required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Silicone Dioxide
REACH Registration No.	01-2119379499-16-0302
CAS No.	7631-86-9
EC No.	231-545-4
Component	SiO ₂

4. FIRST AID MEASURES

Skin Contact:

Wash thoroughly with soap and water. Seek medical attention if redness, swelling, itching, or burning occurs.

Eye Contact:

Flush eyes immediately with large amounts of water for 15 minutes. Seek medical attention if redness, swelling, itching, burning or visual disturbances occur.

Inhalation:

If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.

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Ingestion:

Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.

Notes to Physician:

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special Protective Equipment for Firefighters:

Wear suitable protective equipment. In the event of fire, wear self-contained breathing apparatus.

Specific Hazards:

Product resists ignition and does not promote flame spread.

Hazardous Decomposition and/or Combustion Products:

None.

Risk of Dust Explosion:

This material is an inorganic dust and will not create nor support conditions that would result in a dust explosion or fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Avoid dust formation. Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment.

Methods for Cleaning Up:

Clean up promptly by vacuum. Use a suitable vacuum cleaner. Do not create a dust cloud by using a brush or compressed air. Pick up and transfer to properly labeled containers.

Environmental Precautions:

No special environmental precautions required. Local authorities should be advised if significant spillages cannot be contained.

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7. HANDLING AND STORAGE

Handling:

Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air. Take precautionary measures against static discharge. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations.

Storage:

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store together with volatile chemicals as they may be adsorbed onto product. Keep at ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Ensure adequate ventilation to maintain exposures below occupational limits. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

PERSONAL PROTECTIVE EQUIPMENT/Respiratory Protection:

Approved respirator may be necessary if local exhaust ventilation is not adequate.

Hand Protection:

Repeated exposure may cause skin dryness or cracking. Use protective barrier cream before handling the product. Wear suitable gloves.

Eye Protection:

Wear eye/face protection. Safety glasses with side-shields. Goggles.

Skin and Body Protection:

Wear suitable protective clothing. No special protective equipment required.

Others:

Handle in accordance with good industrial hygiene and safety practice. Emergency eyewash and safety shower should be located nearby.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White powder
Odor	None
PH	3.6 - 4.5
Density	2.2 g/cm ³ @ 20°C
Specific Gravity	Not applicable
Boiling Point/Range	2230°C
Melting Point/Range	1700°C
Vapor Pressure	Not determined
Water Solubility	Insoluble
% Volatile (by Volume)	Not applicable
Evaporation Rate	Not determined
Viscosity	Not determined
Partition Coefficient (n-octanol/water)	Not applicable
Flash Point	Not determined
Method	Not applicable
Explosion Limits in Air - Upper (g/m³)	Not determined
Explosion Limits in Air - Lower (g/m³)	Not applicable
Autoignition Temperature	Not determined
Method	Not determined

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10. STABILITY AND REACTIVITY

Stability:

Stable.

Hazardous Polymerization:

Hazardous polymerization does not occur.

Mechanical Sensitivity (shock):

Not sensitive to mechanical impact

Conditions to Avoid:

Keep away from heat and sources of ignition. Avoid dust formation. Product resists ignition and does not promote flame spread.

Hazardous Decomposition and/or Combustion Products:

None.

Static Discharge Effects:

Take precautionary measures against static discharges. Avoid dust formation. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations. This material is an inorganic dust and will not create nor support conditions that would result in a dust explosion or fire.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Oral LD50 LD50/oral/rat = > 5000 mg/kg

Inhalation LC50 Due to the product's physical characteristics, no suitable testing procedure is available.

Dermal LD50 LD50/dermal/rabbit = > 2000 mg/kg

Eye Irritation Draize score 0.7/110 @ 24 hr. Non-irritating

Skin Irritation 0/8. Non-irritating

SUBCHRONIC TOXICITY

No data are available on the product itself.

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CHRONIC TOXICITY

a. Carcinogenic Effects:

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- EU (European Union).

OTHER

Mutagenic Effects:

Not mutagenic in AMES Test, unscheduled DNA synthesis, chromosomal aberration in Chinese hamster ovary (CHO) cells.

Reproductive Toxicity:

Did not show teratogenic effects in animal experiments. According to experience not expected.

Sensitizing Effects:

A delayed contact hypersensitivity study in guinea pigs utilizing the Magnusson and Kligman Maximization technique was performed. No sensitization responses were observed.

Synergistic Materials:

None reasonably foreseeable.

12. ECOLOGICAL INFORMATION

ACUTE TOXICITY

Aquatic Toxicity

Fish (Brachydanio rerio) NOEC (96 hours) = 10,000 mg/l
(Method: OECD 203)
Daphnia magna NOEC (24 hours) =10,000 mg/l
(Method: OECD 202)

ENVIRONMENTAL FATE

Mobility

Not expected to migrate

Bioaccumulation

According to experience not expected

Persistence / Degradability

The methods for determining biodegradability are not applicable to inorganic substances

Distribution to Environmental Compartments

Not determined

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13. DISPOSAL CONSIDERATIONS

Material

a. Recommendation:

After solidification, material can be stored together with domestic waste. Observe local/state/federal regulations.

Uncleaned packaging

a. Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations:

- US Department of Transportation
- Canadian Transport of Dangerous Goods Regulation
- European Transport of Dangerous Goods Regulation
- GGVS, GGVE, RID, ADR, IMDG Code, ICAO-TI
- United Nations (no UN number)

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International Inventories

All components of this product are listed on or exempt from the following inventories:

- YES - Australian Inventory of Chemical Substances (AICS)
- YES - Canadian Domestic Substances List (DSL)
- YES - Chinese Inventory
- YES - European Inventory of Existing Commercial Chemical Substances (EINECS)
- YES - Japanese Existing and New Chemical Substances (ENCS)
- YES - Korean Existing Chemicals List (KECL)
- YES - New Zealand Hazardous Substances and New Organisms Act (HSNO)
- YES - Philippine Inventory of Chemicals and Chemical Substances (PICCS)
- YES - United States Toxic Substances Control Act (TSCA) Inventory

U.S. Federal Regulations

TSCA 12(b) Export Notification:

This product does not contain any components that are subject to TSCA 12(b) Export Notification.

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Clean Air Act Amendments of 1990 (CAA, Section 112, 40 CFR 82):

This product does not contain any components listed as a Hazardous Air Pollutant, Flammable Substance, Toxic Substance, or Class 1 or 2 Ozone Depletor.

Clean Water Act (CWA, 40 CFR 116) Priority Pollutants:

This product does not contain any listed Priority Pollutants.

**Comprehensive Environmental Response,
Compensation and Liability Act (CERCLA, 40 CFR 302):**

This product does not contain any listed Hazardous Substances.

Superfund Amendments and Reauthorization Act, Title III (SARA)

a. SARA Section 302 (40 CFR 355) Extremely Hazardous Substances:

No components are listed as extremely hazardous chemicals under SARA Section 302.

b. SARA Sections 311/312 (40 CFR 370) Hazard Category:

This product does not meet any of the MSDS Requirement definitions for a hazardous material under SARA Sections 311/312. Reporting may be required if the material is present at any one time in amounts equal to or greater than 10,000 pounds.

c. SARA Section 313 (40 CFR 372) Toxics Release Inventory:

Does not contain any of the substances identified under Section 313 as toxic chemicals in excess of the de minimis concentrations necessary to be subject to the supplier notification requirements.

Food and Drug Administration (FDA):

Not available.

Cosmetic Use:

Not available.

Pharmaceutical Information:

Not available.

U.S. State Regulations:

a. California Proposition 65:

This product does not contain any components listed on California Proposition 65.

This product is not listed on California Proposition 65.

b. US Coalition of Northeastern Governors (CONEG) Metals List:

This product meets the CONEG Source Reduction Council limits for the sum of the levels of lead, cadmium, mercury and hexavalent chromium of less than 100 parts per million by weight.

16. OTHER INFORMATION

Material:

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. Properties of the product are to be found in the respective product leaflet: