



KUNSIL SILICONES INDUSTRY

410, SUNWOO BLDG, SEOCHO-DONG, SEOCHO-GU, SOUTH KOREA

MATERIAL SAFETY DATA SHEET

KUNSIL FS - 200

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : KUNSIL FS-200
Product Code : 903
Chemical Family : Silicon
Chemical Name2 : Silicon dioxide (amorphous)
Formula : SiO₂
Relevant Applications : Adhesives, Unsaturated Polyester, Resins etc.
Manufacturer Name : Kunsil Silicones Industry
Address : 410, Sunwoo Bldg, Seocho-Dong, Seocho-Gu, South Korea

SECTION 2 - COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS # : Concentration
Silicone Di Oxide : 112945-52-5
Percentage (wt./wt.) : 100%
Form : Powder
Colour : White
Odour : Odourless
Dust : May be irritating to the respiratory tracts

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

HMIS Hazard Rating : Health - 1 Flammability - 0 Physical Hazards - 0
Caution : Static ignition hazard. Avoid excessive breathing of airborne dust.

Primary Route of Entry : Inhalation

POTENTIAL HEALTH EFFECTS:

Acute Inhalation : If exposure limits are exceeded, the respiratory tract may become irritated and may cause shortness of breath, coughing, or chest tightness due to temporarily physically overloading the lungs.

Chronic Inhalation : May aggravate existing respiratory conditions. May cause dryness of mucous membranes of the respiratory tract.



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Acute Skin Contact : May cause irritation and dryness.

Chronic Skin Contact : Repeated exposure may cause dermatitis due to drying of the skin

Eye Contact : May cause irritation, redness and tearing.

Ingestion : No known health effects

Symptoms of Over-exposure : Coughing, shortness of breath or irritation of the respiratory tract.

Medical Condition's Aggravated by Exposure : Skin and respiratory conditions, like dermatitis and asthma

SECTION 4 - FIRST AID MEASURES

First Aid for Eyes : Flush adequately with water to remove particles. If discomforts persist, seeks medical advice.

First Aid for Skin : Wash with soap and water. Apply moisturizing cream to replenish moisture in the skin, if necessary.

First Aid for Inhalation : Remove to fresh air if effects occur. If effects persists, seek medical advice.

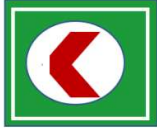
First Aid for Ingestion : No Specific Information.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing Media : Water spray, dry powder, CO2 and Foam. Adapt fire extinguishing measures to surroundings.
Do not use full force water jet in order to avoid dispersal and spread of the fire.

Special Fire Fighting Procedures : No specific information.

Procedure for Fire fighters : As in any fire, wear self-contained positive pressures breathing apparatus (MSHA/NIOS approved or equivalent) and full protective gear.



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SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal Precaution** : Use personal protective equipment's and follow emergency procedures.
- Environmental Precautions** : Obey relevant, local, state provincial and federal laws & regulations. Do not contaminate any lakes, streams, ponds, ground water or soil. Do not allow entrance in sewage water, soil stretches of water, groundwater and drainage systems.
- Spill or Leak Procedures** : Sweep and shovel or use properly grounded vacuum equipment. Do so in a manner that minimizes airborne dust.

SECTION 7 – HANDLING AND STORAGE

- Storage Temperature:** 0°F (-17°C)/ 100°F (38°C)
(Min. / Max.)
- Storage** : Keep dry. Use adequate ventilation.
- Handling Precautions** : Avoid handling that will unnecessarily generate airborne dust. Properly ground all material handling equipment to prevent static charge.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

- Control Parameters** : 20 Millions of particles per cubic foot of air {Time Weighted Avg.: Z3}
- Control Parameters** : 0.8 mg/ m³ {Time Weighted Avg.: Z3}
The exposure limit is calculated from the equation, 80/%SiO₂), using a value of 100% SiO₂. Lower values of %SiO₂ will give higher exposure limits.
- Personal Protection -**
- Respiratory Protection** : A respiratory program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.
- Hand Protection** : Use impermeable gloves.



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Eye Protection	: Wear safety glasses with the side shields. In case dust are formed, wear close fitting protective goggles.
Skin and Body Protection	: A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) Requirement's, it is recommended that a hazard assessment in accordance with the OSHA PPE Standards (29CFR1910.132) be conducted before using the product.
Hygiene Measures	: When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. To ensure ideal skin protection: use super fatted soaps and skin cream for skin care. Wash contaminated clothing before re-use.
Protective Measures	: Handle in accordance with good industrial hygiene and safety practice. If there is a possibility of skin/eye contact, the indicated eye/hand/body protection should be used. If the workplace threshold limit value is exceeded and/or the substance is released, use appropriate respiratory protection.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form	: Powder
Colour	: White
Odour	: Odourless
Boiling Point	: Not determined
Melting Point / Freeze Point	: No data
Lower Explosion Limit	: Not Applicable
Upper Explosion Limit	: Not Applicable
Auto ignition Temperature	: Not Applicable
pH:	: 3.6 - 4.6 (suspension)
Water Solubility	: Sparingly Soluble
Specific Gravity	: 2.2 g/cm ³ at 20°C
Bulk Density	: 0.33 pounds/gallon
Vapor Pressure	: Not Applicable



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Vapor Density : Not Applicable.

Viscosity, dynamic : Not Applicable

SECTION 10 – REACTIVITY

Stability : Stable under normal conditions

Hazardous Polymerization : Product will not undergo hazardous polymerization.

Incompatibilities : A chemical reaction is possible with strong bases or hydrofluoric acid.

Thermal Decomposition : At more than 2000°C

Hazardous Decomposition : Not Known

SECTION 11 – TOXICOLOGICAL INFORMATION

Product Oral Toxicity : LD 50 > 5000 mg/Kg (rats)

Product Inhalations Toxicity : LCO Rat: 0.148mg/l/4hr

Product Dermal Irritation : LD50 Rabbit: > 5000 mg/ kg

Eye Irritation : Rabbit: Not irritating (analogous OECD Method)

Carcinogenicity : No Negative Effects

Mutagenicity Effects : No Negative Effects

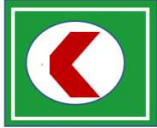
Human Experience : Silicosis or other product specific illness of the respiratory tract have not been reported.

Repeated Dose Toxicity : No Negative effects on oral as well as Inhalation.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity to Fish : LC50 > 5000mg/l/96 hrs (OECD 203)

Toxicity in Aquatic Invertebrates : EC50 > 1000mg/l/24 Hr



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SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method : This material is determined not to be a hazardous waste as per RCRA standards, either by listing or characteristics. Disposer must comply with all federal, state and local laws. Waste product may be sent to a landfill.

SECTION 14 – TRANSPORTATION INFORMATION

D.O.T. Shipping Name : Not classified as hazardous in the meaning of regulations.

Technical Shipping Name: Not Applicable

D.O.T. Hazard Class : Not Applicable

U.N./ N.A. Number : Not Applicable

Packing Group : Not Applicable

SECTION 15 – REGULATORY INFORMATION

OSHA Status : Hazardous, Nuisance dust

TSCA Status : All components are listed on TSCA inventory or otherwise comply with TSCA requirements.

SARA Title III : No SARA Hazards

Section 313, Toxic Chemicals : None

Section 112, Clean Air Act : Minimum Hazardous Air Pollutant

State Regulatory Information : The chemicals are specifically listed or otherwise regulated by individual states. For details on your regulatory requirements you should contact the appropriate agency in your state.

Component Name/CAS Number : Not Known

Concentration State Code



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SECTION 16 – OTHER INFORMATION

Reason for Issue	: Changes made in Section 3, 8 and 15
Prepared By	: Harry Christoper
Approved By	: G.M. House
Title	: Health, Safety & Environmental Manager
Approval Date	: May 3, 2018

