



MR-16-001
Rev 03

MATERIAL SAFETY DATA SHEET

Synthetic Amorphous Silica.

1-. IDENTIFICATION OF THE SUBSTANCE AND THE MANUFACTURER COMPANY

Product Label Name:	Precipitated Silica
Trade Names	DENTSIL DS-60, DENTSIL DS-100, DENTSIL DS-230.
Chemical Family	Precipitated Amorphous Silica. Silicon Dioxide. Precipitated Hydrated Amorphous Silica.
Supplier	Glassven Yangzhong Silicas & Chemicals J.V.Ltd. Changwang Xi Road, Youfang Town, Yangzhong City, Jiangsu Provine 212216
Business Telephone	+58 244 321 23 53. +86 511 852 59 68 – 852 70 08
Emergency Telephone	+ 58 244 322 37 47 Fax 58 244 322 36 07

2-. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Description	Precipitated Synthetic Amorphous Silica
Composition/ Information On Ingredients	SiO ₂ anhydrous: 98 % Contains no detectable crystalline silica Detection limit <0.01 % by weight Composition typical based on product calcinated for two hours at the following temperature 1050 °C.
Hazardous Components	Absent.
Other Information	CAS Registry Number: 112926-00-8 (7631-86-9) EINECS Number: 231-545-4

3-. HAZARDS IDENTIFICATION

EC Classification	This product is not classified as dangerous according to Directive 1999/45/ EC .
Critical Hazards	This product presents minimum hazards under emergency circumstances.
Inhalation	Inhalation can cause irritation to respiratory system.
Eyes	Causes irritation to eyes.
Skin	Avoid prolonged, repeated or excessive contact with the skin. May cause irritation and discomfort.
Ingestion	No adverse health effects anticipated by this route during proper industrial handling.
Safety Diamond	Flammability risk 0 Health risk 1 Reactivity risk 0 Specials risk --

4-. FIRST AID MEASURES

Inhalation	Move patient to fresh air. If symptoms persist seek medical advice.
Skin Contact	Wash skin with soap and water.
Eye Contact	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.
Ingestion	No adverse health effects anticipated by this route during proper industrial handling. Rinse mouth with water. Do not induce vomiting

5-. FIRE – FIGHTING MEASURES

Flash Point	None
Flammable Limits In Air-Lower (%)	Not applicable
Flammable Limits In Air-Upper (%)	Not applicable
Extinguishing Media	Not applicable
Special Firefighting Procedures	Not applicable
Discharge	Take suitable precautions against the discharge of static electricity during handling operations.

6-. ACCIDENTAL RELEASE MEASURES

Personal Precautions	In case of dust formation use dust mask
Environmental Precautions	This product does not present any particular risk to the environment. Refer to applicable national, state and local regulations prior to washing in drain.
Methods for Cleaning Up	Collect as much as possible in a clean container for preferable reuse or disposal. Avoid dust generation. Do not allow material to escape into drains or waterways.

7-. HANDLING AND STORAGE

Handling	Wash thoroughly after using this product. Do not eat, drink, smoke or apply cosmetics while handling this product. Avoid breathing dust or particles generated by this product. Use in a well-ventilated location. Remove contaminated clothing after being in contact with the product. Employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. Containers of this product must be properly labeled. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care.
Storage Requirements	Store containers in a dry location. Store away from incompatible materials. Keep container tightly closed when not in use. Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged.

8.- EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposures Limits:

TLVs ACGI	10 mg/m ³
UK EH 40/95	3 mg/m ³ respirable dust, 8 hours oes 6 mg/m ³ total dust, 8 hours oes
PELs OSHA	80 mg/m ³ (total dust) %sio ₂ or 20 mppcf



NIOSH REL : TWA
DFG MAK

6 mg/m³
4 mg/m³

QES:TWA
USA OSHA CFR 29 PART 1910.1000

5 - 10 mg/m³
6 mg/m

Ventilation and Engineering Controls

Use with adequate ventilation to exposure levels are maintained below the limits provided in this section.
Prudent practice is to ensure eye wash station/safety showers are near locations where this product is used or stored.

Personal Protection

In case of dust formation use dust mask.

Respiratory Protection

If respiratory protection is needed, such as during emergency response to uncontrolled releases, use only protection authorized in 29 CFR 1910.134, applicable U.S. State regulations or the appropriate standard of Canada and its provinces.
Advice on respiratory protective equipment is given in British standards BS 2091 and BS 4275 and the HSE publication HS(g) 53. in the USA, ASTM E1156-88 (re-approved 1993) specifies standards practice for handling amorphous silica.

Hand Protection

Wear rubber gloves for routine industrial use.

Eye Protection

Splash goggles or safety glasses with side shields.

Skin and Body Protection

Use body protection appropriate for task.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9-. PHYSICAL AND CHEMICALS PROPERTIES

Appearance	Powder
Color	White
Odor	Odourless
Boiling Point/ Range	Not applicable
Melting Point/ Range	Not determined
Flash Point	Not applicable
Flammability	Not applicable
Explosive Properties	Not applicable
Explosion Limits	Not applicable
Oxidizing Properties	Not applicable
Vapor Pressure	Not applicable
Density	Variable
Bulk Density	Variable
Solubility in Water	Insoluble
Solubility in Other Solvents	Insoluble in most organic solvents
pH VALUE	6.0 – 7.50
Partition Coefficient N - Octanol/Water	Not determined
Relative Vapor Density (Air=1)	Not applicable
Viscosity	Not applicable
Other Information	Volatile matter: 5 % moisture (2 hours @ 105°C) Impurities: contains less than 2 % Na ₂ SO ₄

10-. STABILITY AND REACTIVITY

Stability	The product is stable
Condition to Avoid	None known
Materials to Avoid	Hydrofluoric acid
Hazardous decomposition products:	None



11-. TOXICOLOGICAL INFORMATION

These product components are not found on the following lists:

U.S FEDERAL OSHA Z LIST

NTP

IARC

CAL/OSHA

And therefore are neither considered to be nor suspected to be cancer-causing agents by these agencies. Synthetic amorphous silica is a permitted food additive in the UK, USA and many other countries. It has been fully evaluated by the U.N codex alimentarius commission and given clearance for use as a food additive.

**Mutagenecity, Embryotoxicity
and Teratogenicity**

This product is not reported to produce mutagenic, embryotoxic, and teratogenic effects in humans.

Reproductive Toxicity

This product is not reported to cause reproductive effects in humans.

Sensitization Information

The components of this product are not known to be sensitizes with repeated or prolonged use.

Animal Toxicity

LD₅₀ (ORAL, RAT)= >10000 mg/kg

12-. ECOLOGICAL INFORMATION

Synthetic amorphous silica is virtually inert and has no known adverse effect on the environment.

Ecotoxicological Information

EC₀ : >1000 PPM (daphnia magna) (24-hours acute immobilization test)

EC₀: >10000 PPM (rainbow trout) (4-days static study).

EC₀: >10000 PPM (freshwater fish) (96-hours static acute toxicity study)

Ectotoxicity Data

LD₅₀ (CARP)= 10000 mg/ lt /72 hrs

13-. DISPOSAL CONSIDERATIONS

Product

Waste disposal in accordance with regulations (most probably controlled landfill).

Contaminated Packaging

According to local regulations.

Classification under Rcra

This classification is not applicable for this product.

14-. TRANSPORT INFORMATION

LAND

ADR Class: Not restricted

RID Class: Not restricted

Hazard Identification N°: Not relevant

Trem-Card: Not relevant

Proper Shipping Name: Not relevant

SEA

IMO/IMDG CODE

Packing Group: Not relevant

EMS: Not relevant

Marine Pollutant: No

Proper Shipping Name: Not relevant

ADR Item Number: Not relevant

RID Item Number: Not relevant

Substance Identification N°: Not relevant

UN Number: None

Class Not restricted

UN Number: None

MFAG: Not relevant

Packing Group: Not relevant

AIR

ICAO-TI/ IATA-DGR

Class: Not restricted

Proper Shipping Name: Not relevant

Other Information

UN Number: None

Packing Group: Not relevant

**Basic Shipping
Classification** Not relevant



15-. REGULATORY INFORMATION

SARA 313	Synthetic amorphous silica is not listed on the SARA 313.
TSCA (USA), AICS (Australia), DSL (Canadá)	Synthetic amorphous silica is listed in TSCA, AICS, DSL under CAS N° 7631-86-9 silicon dioxide
Identification According To EEC Directives	Synthetic amorphous silica is not classified as dangerous according to the rules of 67/548/EEC as amended by 92/32/EEC.
EC LABELLING:	This product is not classified as dangerous according to Directive 1999/45/EC and no warning label is required.
E number	551
EUROPEAN PHARMACOPEIA	Silica, dental type
FAO/WHO (JECFA)	Silicone Dioxide
FOOD CHEMICAL CODEX	Silicone Dioxide
HARMONIZED TARIFF CODE	2811.2200
INCI (CTFA)	Hydrated Silica
USP/NF:	Silica, dental type
<u>NATIONAL CHEMICAL INVENTORY</u>	
<u>LISTING:</u>	
AUSTRALIA AICS:	Synthetic amorphous Silica 112926 – 00-8
CANADA DSL / NDSL:	Synthetic amorphous Silica 112926 – 00-8
CHINA IECSC:	Synthetic amorphous Silica 112926 – 00-8
EUROPA EINECS:	Synthetic amorphous Silica 231-545-4
JAPAN ENCS:	Silicone Dioxide 1 – 548
KOREA KECI:	Synthetic amorphous Silica KE – 31032
PHILLIPINES PICCS	Synthetic amorphous Silica 112926 – 00-8
UNITED STATES TSCA:	Silicone dioxide 7631 – 86 –9

16-. OTHER INFORMATION

This information only concerns the above-mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

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contactus@glassven.com