



MR-16-001  
Rev. 03

## MATERIAL SAFETY DATA SHEET

**Synthetic Amorphous Silica.**

### 1-. IDENTIFICATION OF THE SUBSTANCE AND THE MANUFACTURER COMPANY

|                            |                                                                                                                                |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Label Name:</b> | Precipitated Silica                                                                                                            |
| <b>Trade Names</b>         | GELSIL GS-3000, GELSIL GS-300, GELSIL MS-300                                                                                   |
| <b>Chemical Family</b>     | Precipitated Amorphous Silica. Silicon Dioxide. Precipitated Hydrated Amorphous Silica.                                        |
| <b>Supplier</b>            | Glassven Yangzhong Joint Venture LTD.<br>Changwang Xi Road, Youfang Town,<br>Yangzhong City, Jiangsu Province 212216<br>China. |
| <b>Business Telephone</b>  | +58 244 321 23 53.<br>+86 511 852 59 68 / 852 70 08                                                                            |
| <b>Emergency Telephone</b> | + 58 244 322 37 47 Fax 58 244 322 36 07                                                                                        |

### 2-. COMPOSITION/ INFORMATION ON INGREDIENTS

|                                                    |                                                                                                                                                                                                                                  |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chemical Description</b>                        | Precipitated Synthetic Amorphous Silica                                                                                                                                                                                          |
| <b>Composition/<br/>Information On Ingredients</b> | SiO <sub>2</sub> anhydrous: 98 %<br><br>Contains no detectable crystalline silica<br>Detection limit <0.01 % by weight<br>Composition typical based on product calcinated for two hours at the following<br>temperature 1050 °C. |
| <b>Hazardous Components</b>                        | Absent.                                                                                                                                                                                                                          |
| <b>Other Information</b>                           | CAS Number 112926-00-8 (7631-86-9)<br>EINECS Number: 231-545-4<br>Harmonized System: 2811.2200                                                                                                                                   |

### 3-. HAZARDS IDENTIFICATION

|                          |                                                                                                    |
|--------------------------|----------------------------------------------------------------------------------------------------|
| <b>EC Classification</b> | This product is not classified as dangerous according to Directive 1999/45/ EC.                    |
| <b>Critical Hazards</b>  | This product presents minimum hazards under emergency circumstances.                               |
| <b>Inhalation</b>        | Inhalation can cause irritation to respiratory system.                                             |
| <b>Eyes</b>              | Causes irritation to eyes.                                                                         |
| <b>Skin</b>              | Avoid prolonged, repeated or excessive contact with the skin. May cause irritation and discomfort. |
| <b>Ingestion</b>         | 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

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

#### 5- FIRE – FIGHTING MEASURES

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

#### 6- ACCIDENTAL RELEASE MEASURES

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

#### 7- HANDLING AND STORAGE

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b>             | Wash thoroughly after using this product.<br>Do not eat, drink, smoke or apply cosmetics while handling this product.<br>Avoid breathing dust or particles generated by this product.<br>Use in a well-ventilated location.<br>Remove contaminated clothing after being in contact with the product.<br>Employees who handle this material should be trained to handle it safely.<br>Open containers slowly on a stable surface.<br>Containers of this product must be properly labeled.<br>Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. |
| <b>Storage Requirements</b> | Store containers in a dry location.<br>Store away from incompatible materials.<br>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:**

|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| <b>TLVs ACGI</b>   | 10 mg/m <sup>3</sup>                                                                            |
| <b>UK EH 40/95</b> | 3 mg/m <sup>3</sup> respirable dust, 8 hours oes<br>6 mg/m <sup>3</sup> total dust, 8 hours oes |



|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PELs OSHA                            | 80 mg/m <sup>3</sup> (total dust) % $\text{SiO}_2$ or 20 mppcf                                                                                                                                                                                                                                                                                                                                                                                                                            |
| NIOSH REL : TWA                      | 6 mg/m <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DFG MAK                              | 4 mg/m <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| QES:TWA                              | 5 - 10 mg/m <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| USA OSHA CFR 29 PART 1910.1000       | 6 mg/m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Ventilation and Engineering Controls | Uses with adequate ventilation to exposure levels are maintained below the limits provided in this section.<br>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.<br>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:<br>5 % moisture (2 hours @ 105°C)<br>Impurities: contains less than 2 % $\text{Na}_2\text{SO}_4$ |

## 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**

LD<sub>50</sub> (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**

EC<sub>01</sub> : >1000 PPM (daphnia magna) (24-hours acute immobilization test)

EC<sub>01</sub>: >10000 PPM (rainbow trout) (4-days static study).

EC<sub>01</sub>: >10000 PPM (freshwater fish) (96-hours static acute toxicity study)

**Ectotoxicity Data**

LD<sub>50</sub> (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

**ADR Item Number:** Not relevant

**RID Class:** Not restricted

**RID Item Number:** Not relevant

**Hazard Identification N°:** Not relevant

**Substance Identification N°:** Not relevant

**Trem-Card:** Not relevant

**UN Number:** None

**Proper Shipping Name:** Not relevant

**SEA**

**IMO/IMDG CODE**

**Class** Not restricted

**Packing Group:** Not relevant

**UN Number:** None

**EMS:** Not relevant

**MFAG:** Not relevant

**Marine Pollutant:** No

**Packing Group:** Not relevant

**Proper Shipping Name:** Not relevant

**AIR**

**ICAO-TI/ IATA-DGR**

**UN Number:** None

**Class:** Not restricted

**Packing Group:** Not relevant

**Proper Shipping Name:** Not relevant



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Other Information

Basic Shipping  
Classification

Not relevant

#### 15-. REGULATORY INFORMATION

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