MATERIAL SAFETY DATA SHEET

Synthetic Amorphous Silica.

1-. IDENTIFICATION OF THE SUBSTANCE AND THE MANUFACTURER COMPANY

Product Label Name: Precipitated Silica
Trade Names

Chemical Family
Precipitated Amorphous Silica. Silicon Dioxide. Precipitated Hydrated Amorphous Silica.

Supplier
Glassven – Yangzhong Silicas and Chemicals J.V. LTD.
Changwang Xi Road, Youfang Town.
Yangzhong City, Jiangsu Province
China (212216)

Business Telephone
(+86 511) 852 59 68 / 852 70 08
(+58 244) 321 23 53.

Emergency Telephone
(+58 244) 322 37 47 Fax: (+86 511) 8525966 / (+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 ºC.

Hazardous Components
Absent.

Other Information
CAS Registry Number 112926-00-8 (7631-86-9)
EINECS Number: 231-545-4
Harmonized System: 2811.22.00

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 through 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:

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<th>TLVs ACGI</th>
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<td>6 mg/m³ total dust, 8 hours oes</td>
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<td>PELs OSHA</td>
<td>80 mg/m³ (total dust) %SiO₂ or 20 mppcf</td>
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<tr>
<td>NIOSH REL : TWA</td>
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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. 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 / Granular form

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 – 7.30

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 @ 105ºc)
Impurities: contains less than 3.5 % Na₂SO₄

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$_{50}$ (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$_{50}$: $>1000$ PPM (daphnia magna) (24-hours acute immobilization test)

EC$_{50}$: $>10000$ PPM (rainbow trout) (4-days static study).

EC$_{50}$: $>10000$ PPM (freshwater fish) (96-hours static acute toxicity study)

**Ectotoxicity Data**

LD$_{50}$ (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

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### 15-. REGULATORY INFORMATION

**SARA 313**

Synthetic amorphous silica is not listed on the SARA 313.

**TSCA (USA), AICS (Australia), DSL (Canada)**

Synthetic amorphous silica is listed in TSCA, AICS, DSL under CAS Nº 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
E number
FAO/WHO (JECFA)
FOOD CHEMICAL CODEX
HARMONIZED TARIFF CODE
INCI (CTFA)

551
Silicone Dioxide
Silicone Dioxide
2811.22.00
Hydrated Silica

1999/45/EC and no warning label is required.

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.

Date: July, 2009.
Revision: 01.
contactus@glassven.com