

Safety data sheet
according to 1907/2006/EC, Annex II and its amendments

Printing date 08.05.2017

Version: 5

Revision: 05.05.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:** Precipitated silica (OSC® Series, TOKUSIL® Series, OSCMATT® Series, FINESIL® Series, OSC® AS Series, OSC® CS Series, EECO-SIL® Series)

· **Synonyms:** Silicon dioxide

· **CAS Number:**

112926-00-8

· **EC number:**

231-545-4

· **Registration number** 01-2119379499-16-0092

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

· **Sector of Use**

Industrial and professional uses:

SU8 Manufacture of bulk, large scale chemicals (including petroleum products)

SU9 Manufacture of fine chemicals

SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU19 Building and construction work

SU1 Agriculture, forestry, fishery

SU7 Printing and reproduction of recorded media

SU5 Manufacture of textiles, leather, fur

SU6a Manufacture of wood and wood products

SU6b Manufacture of pulp, paper and paper products

SU11 Manufacture of rubber products

SU12 Manufacture of plastics products, including compounding and conversion

SU16 Manufacture of computer, electronic and optical products, electrical equipment

SU15 Manufacture of fabricated metal products, except machinery and equipment

SU4 Manufacture of food products

SU0: Other: flame retardant or fire preventing agent, flow modifier, preservative, process regulator or aid, surface active agent, structure agent, viscosity control agent.

· **Process category**

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC5 Mixing or blending in batch processes

PROC14 Tableting, compression, extrusion, pelletisation, granulation

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

· **Application of the substance / the mixture**

Binding agent

Laboratory chemicals

Lubricant

Food additive

pH-corrective agent

Chemical intermediate

Processing aid

Pigment

Agent adsorbing and absorbing gases or liquids

Adhesives

Filler and surfacer

Process regulator

· **Uses advised against** Not applicable

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Oriental Silicas Corporation

99, Li-Yu Kou, Li-Yu Village Sanyi, Miaoli, 367,

Taiwan, R.O.C

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- **Only Representative**
TÜV SÜD Iberia, S.A.U.
c/ Frederic Mompou, 4 A 1º 4ª
08960 Sant Just Desvern (Spain)
e-mail: reach.es@tuev-sued.es
- **Further information obtainable from:** osc-taiwan@apsilica.com
- **1.4 Emergency telephone number:** OSC: +886-37-881316 (24 hours)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not applicable
- **Hazard pictograms** Not applicable
- **Signal word** Not applicable
- **Hazard statements** Not applicable
- **Information concerning particular hazards for human and environment:**
Irritation to the respiratory system is related to deposition of particles, but is no particular inherent property of the substance.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No.**
112926-00-8
- **CAS Description:** Silica gel, pptd., cryst.-free
- **Identification number(s)**
- **EC number:** 231-545-4
- **Impurities and stabilising additives:** Not applicable
- **SVHC** Not applicable

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:**
Remove victim to fresh air.
Mechanical irritation may be caused by dust in the airways: Remove person from substance dust exposed area.
Supply fresh air; consult doctor in case of complaints
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly
Generally the product does not irritate the skin
- **After eye contact:**
Immediately flush eyes with copious amounts of water for at least 15 minutes

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If eye irritation, pain, swelling, lachrimation or photophobia persists, patient should be referred to a specialist health care facility.

· **After swallowing:**

Rinse mouth with water

If the person is conscious, give small quantities of water to drink.

If the patient is about to lose consciousness, is unconscious or is in convulsion, do not feed anything through the mouth

If symptoms persist consult doctor

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

The substance is a powder and the risks are consequence from the inhalable fraction.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** None

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

· **Protective equipment:**

No special measures required.

If dust develops, use a mask with dust filter.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure sufficient ventilation.

Avoid formation of dust.

Use respiratory protective device against the effects of fumes/dust/aerosol.

· **6.2 Environmental precautions:** No special measures required.

· **6.3 Methods and material for containment and cleaning up:**

Pick up mechanically using appropriate tools

Avoid raising dust

Clean the area with water

· **6.4 Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment

See Section 13 for disposal information

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Provide suction extractors if dust is formed.

Prevent formation of dust.

· **Information about fire - and explosion protection:** Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **Information about storage in common storage facility:** Not required

· **Further information about storage conditions:** None.

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· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

112926-00-8 Precipitated silica (Silica-Amorphous)

WEL (Great Britain)	Long-term value: 6* 2.4** mg/m ³ inhalable dust*, respirable dust**
LEP (Spain)	Long-term value: 10 mg/m ³
VL (Belgium)	Long-term value: 10 mg/m ³
TWA (Italy)	Long-term value: 10 mg/m ³
VLE (Portugal)	Long-term value: 10 mg/m ³
NDS (Poland)	Long-term value: 10* 2** mg/m ³ inhalable dust*, respirable dust**
HTP (Finland)	Long-term value: 10 mg/m ³

· DNELs

A DNEL has not been derived for routes where no hazard has been identified.

Oral	DNEL	60.000 mg/kg bw/day (general)
Inhalative	DNEL	4 mg/m ³ (general) (Long term-local effect)

· PNECs Not determined

· **CAS No. Designation of material % Type Value Unit**

· **Additional Occupational Exposure Limit Values for possible hazards during processing:**

OSHA: 6mg/m³ (Total dust). 8 hours TWA

ACGIH: 10 mg/m³ (Total dust) 8 hours TWA

· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals

· **Respiratory protection:**

Not required

Suitable respiratory protective device recommended.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· **Material of gloves**

Rubber gloves

Leather gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

Break through time >8 hours

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Light weight protective clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:	Solid
Colour:	White
Odour:	Odourless
Odour threshold:	Not determined.

· **pH-value (40 g/l) at 20 °C:** 6-9· **Change in condition**

Melting point/freezing point:	1700 °C
Initial boiling point and boiling range:	2230 °C

· **Flash point:** Not applicable· **Flammability (solid, gas):** Product is not flammable· **Ignition temperature:** >370 °C· **Decomposition temperature:** Not determined· **Auto-ignition temperature:** Not determined· **Explosive properties:** Product does not present an explosion hazard· **Explosion limits:**

Lower:	Not determined
Upper:	Not determined

· **Oxidising properties:** Not oxidizing· **Vapour pressure:** Not applicable.· **Density at 20 °C:** 2 g/cm³· **Bulk density at 20 °C:** (50-600)E+3 kg/m³· **Relative density:** Not determined· **Vapour density:** Not applicable.· **Evaporation rate:** Not applicable· **Solubility in / Miscibility with:**
water at 37 °C: 0.076 g/l· **Partition coefficient: n-octanol/water** log Kow is <0.5· **Viscosity:**· **Dynamic:** Not applicable.· **Kinematic:** Not applicable.· **9.2 Other information:** No further relevant information available.· **Surface tension:** 30-500 m²/g

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· **Granulometry** 1-250 µm

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

Oral	LD50	>10000 mg/kg bw (rat)
Dermal	LD50	140-2000 mg/m ³ air (rat) (Similar to OECD) 5000 mg/kg (rabbit) (Draize test)
Inhalative	NOAEL	1 mg/m ³ (general)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Not irritant
Irritation to the respiratory system is related to deposition of particles, but is no particular inherent property of the substance.
- **Toxicokinetics, metabolism and distribution**
The synthetic amorphous silica (SAS) is rapidly eliminated from lung tissues.
After repeated oral ingestion, there is no evidence of accumulation of the substance in body tissues.

· **Repeated dose toxicity**

Inhalative	LOAEC	5.6E+6 mg/m ³ (rat) (In compliance with OECD 413)
	NOAEC	1.3E+6 mg/l (rat) (In compliance with OECD 413)

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity**

Oral	NOAEL (teratogenicity)	≥1340 mg/kg (general) 4000-4500 mg/kg (rat) (Similar to OECD)
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- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

EC0/96	10000 ppm (Branchydanio rerio) (OECD 203)
EL50	>10000 mg/L (Algae) (OECD 201)
LC50/24h	>10000 mg/l (daphnia) (OECD 202)

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NOEL fish tox, long term	10000 mg/L (Scenedesmus subspicatus) (OECD 201)
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- **12.2 Persistence and degradability** Inorganic compound. It won't be degraded by microorganisms.
- **12.3 Bioaccumulative potential** Not applicable
- **12.4 Mobility in soil** Not applicable
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
After prior treatment product has to be landfilled adhering to the regulations pertaining to the disposal of particularly hazardous waste.
- **Uncleaned packaging:**
- **Recommendation:**
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Disposal must be made according to official regulations

SECTION 14: Transport information

- | | |
|--|-----------------|
| · 14.1 UN-Number | Not applicable |
| · ADR, ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name | Not applicable |
| · ADR, ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es) | Not applicable |
| · ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · 14.4 Packing group | Not applicable |
| · ADR, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I**
Not applicable

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- Substance is not listed.
- **Seveso category** Not applicable
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57** Not applicable
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

According to REACH this substance does not legally require a SDS. However, it is used to communicate information according to Article 32 of REACH.

- **Exposure scenarios**

This substance is not classified for human health or the environment, is not a CMR and is not PBT or vPvB. Thus it is not required the development of exposure scenarios.

Contact us on additional information about Exposure Scenarios Development

- **Abbreviations and acronyms:**

NOAEL: Non Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

- **Sources**

Own data from manufacturer

REACH Registration data.

- *** Data compared to the previous version altered.**

Version 1: 16 / 03 / 2011

First issue according to Regulation 1907/2006 (EC), Article 31

Version 2: 14 / 05 / 2012

Change in the trade name

General review

Version 3: 25 / 09 / 2015

Change of Only Representative.

Minor format change and clarification of non applicable parameters.

Version 4: 23 / 03 / 2016

Revision

Version 5: 19 / 04 / 2016

Update of limit exposure values at the workplace

Update on registered uses

Version 6: 05 / 05 / 2017

Update of Only Representative data

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Annex: Exposure scenario

· **Short title of the exposure scenario** Empty section

EU