

## PRODUCT DATA SHEET

**Product Name:** Silica Gel

**Chemical Name:** Silicon Dioxide (SiO<sub>2</sub>)

**CAS Number:** 112926-00-8 (Amorphous silica), 7631-86-9 (Silicon dioxide)

**HS Code:** 3824.99

**Molecular Formula:** SiO<sub>2</sub>

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### 1. Physical & Chemical Properties

- **Appearance:** White, transparent, or semi-transparent granules/beads
  - **Particle Size:** 1-10 mm (varies by grade)
  - **Bulk Density:** 500–800 g/L
  - **Pore Size:** 2–60 nm
  - **Surface Area:** 300–800 m<sup>2</sup>/g
  - **pH:** 4-8
  - **Absorption Capacity:** Up to 40% of its weight in moisture
  - **Solubility:** Insoluble in water and most solvents
  - **Melting Point:** >1600°C
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### 2. Types of Silica Gel

1. **White Silica Gel** - Non-indicating, pure SiO<sub>2</sub>
  2. **Blue Silica Gel** - Contains cobalt chloride indicator (turns pink when saturated)
  3. **Orange Silica Gel** - Non-toxic moisture indicator (turns green when saturated)
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### 3. Applications

- **Moisture absorption** in packaging (electronics, food, pharmaceuticals, leather, textiles)
- **Industrial drying** (compressed air systems, gas drying, transformer breathers)
- **Laboratory use** (chromatography, desiccation, drying agents)
- **Preservation** of documents, optical instruments, and delicate materials
- **Odor control** in household applications (pet litter, storage areas)

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#### 4. Safety & Handling

- **Hazard Identification:** Non-toxic, but may cause irritation to the respiratory system if inhaled.
- **Handling Precautions:** Use in well-ventilated areas, wear protective gloves and masks if handling in bulk.
- **Storage Conditions:** Store in airtight containers in a dry place, away from direct sunlight and moisture.
- **Shelf Life:** 24-36 months when stored properly.

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#### 5. Packaging & Availability

- **Small Sachets:** 0.5g - 100g (Tyvek, paper, non-woven fabric)
- **Bulk Packaging:** 500g - 25kg (Plastic drums, HDPE bags, aluminum foil bags)
- **Custom packaging available on request.**

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#### 6. Regulatory Compliance

- **RoHS Compliant**
- **REACH Certified**
- **FDA Approved for Indirect Food Contact**

For more details, specifications, or bulk orders, please contact us.

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#### Manufacturer/Supplier Details:

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**Disclaimer:** The information provided in this document is based on current knowledge and is intended for informational purposes only. The end-user is responsible for ensuring safe usage and compliance with local regulations.