

## SPECIFICATION

<b>Product Name:</b> Colloidal Silicon Dioxide USP Grade
<b>Chemical Formula:</b> SiO <sub>2</sub>
<b>CAS Number:</b> 7631-86-9
<b>Molecular Weight:</b> 60.08 g/mol
<b>Appearance:</b> A light fine white amorphous powder
<b>Odor:</b> Odorless

### Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Identification	-	Complies	Should pass the test
Loss on Drying, (at 105°C, 2 hrs.)	%	1.48	Max.2.5 %
Loss on Ignition, on anhydrous basis (At 1000o C for 2 hrs.)	%	1.1	Max. 2.0 %
pH	-	4.1	3.5 – 4.5
Heavy Metals as Pb	PPM	22.10	Max. 25.0 PPM
Arsenic	PPM	4.9	Max. 8.0 PPM
Chloride	PPM	143	Max. 250 PPM
Bulk Density, Tapped	gm/Lit	Complies	40.0 to 80.0 gm/Lit
Residue on 325 mesh (Wet Sieving)	-	Complies	Nil
Iron Content (Fe+3)	PPM	Complies	Max. 200 PPM
Volume of 5 gm	ml	Complies	Not < 32.5 ml
Average Particle Size- D50 (By Malvern Instrument)	Microns	Complies	Max. 5.0 microns
Assay	%	99.7%	99.0% - 100.5%

### **Physical Properties**

- Solubility: Practically Insoluble in water. Insoluble in ethanol. Insoluble in acetone. Insoluble in ether. Practically insoluble in methanol.

### **Shelf Life & Storage**

- Shelf Life: 5 years from date of manufacture under recommended storage.  
- Storage Conditions: Store in a tightly closed container in a cool, dry, and well-ventilated place, protected from moisture, humidity, and contamination.

### **Applications**

- Use: Widely used as a glidant, anti-caking agent, adsorbent, moisture scavenger, and suspending aid in pharmaceutical, nutraceutical, food, and cosmetic formulations.  
- Dosage: Depends on Powder flow requirements, Moisture sensitivity of ingredients, Manufacturing process, Product type and formulation, Regulatory requirement.

### **Packaging**

- Standard Packing: 10 kg HDPE bags with inner liner or as per customer requirement.  
- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.  
\* Specifications are based on the manufacturer's provided specifications.