

SPECIFICATION

Product Name: Colloidal Silicon Dioxide USP Grade
Chemical Formula: SiO ₂
CAS Number: 7631-86-9
Molecular Weight: 60.08 g/mol
Appearance: A light fine white amorphous powder
Odor: 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 1000°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.