



PPG Silica Products

Flo-Gard™ SP Flow Conditioning Silica

Carrier and Food

Flo-Gard™ SP silica is a synthetic silicon dioxide with superior capabilities for optimizing free-flowing properties in powdered food ingredients. Uniform shape and size allow *Flo-Gard* SP silica to blend easily and thoroughly at reduced dust levels. *Flo-Gard* SP silica is a versatile, cost effective alternative to other flow conditioners, because it provides equivalent anticaking efficiency at lower loadings.

Properties and Characteristics

Flo-Gard SP silica is a unique precipitated silica. A controlled manufacturing process produces a uniform particle size that promotes free-flowing properties when added to powdered food ingredients. *Flo-Gard* SP silica is a highly absorptive, pure white, free-flowing powder. It is amorphous in structure, and has a neutral pH. *Flo-Gard* SP silica is also odorless and tasteless with a typical median particle size of 36 microns by Laser Diffraction.

Certifications and Approvals

- **Food and Drug Administration (FDA), Title 21 Food and Drugs, Code of Federal Regulations (CFR):**
 - As an anticaking agent under **172.480**, but the amount cannot exceed 2% by weight of the food product.
 - Under **133.146** (Grated Cheese), but the amount cannot exceed 2% by weight of the food.
 - Under **160.105** and **160.180** (Dried Eggs and Dried Egg Yolks) but the amount cannot exceed 1% maximum of the finished food weight. There is no limit on the weight % when it is used to carry flavors that are to be added to other food products.
 - Under **172.230** (Flavoring Substances), whereas the *Flo-Gard* SP silica content of the dried flavor put into the final food product cannot exceed 2% by weight of the final food product.
- Food Chemical **CODEX** for silicon dioxide for use in food.
- **Kosher** approved for Passover and year-round use.



Applications

Granulated salt
Chili powder
Paprika and other spices
Guar gum
Seasoning powders
Powdered drink mixes

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Flo-Gard SP

Flow Conditioning Silica

Typical Properties

| | Flo-Gard SP |
|--|--------------|
| DBP Oil absorption, mL/100g | 265 |
| Moisture, as packaged, Wt% | 5.0 |
| pH | 6.9 |
| Residual salt (as Na ₂ SO ₄), Wt% | 2.0 maximum |
| SiO ₂ Hydrate, % | 87.0 minimum |

Samples

Samples are available upon request from Customer Service.

Storage

To ensure product integrity, PPG recommends that our silica products be stored under dry, clean conditions and protected against exposure to other substances. Since silica may pick up moisture, we also recommend that products that are stored for more than one year from the date of manufacture be re-tested for moisture content. There is no shelf life limit when stretch-wrapped palletized units or bags are kept under the above stated conditions. Pallets should not be double-stacked.

Safety and Health Effects

PPG Industries recommends that, before use, anyone using or handling this product thoroughly read and understand the information and precautions on the label, as well as in other product safety publications such as the Material Safety Data Sheet. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be. The products mentioned herein can be hazardous if not used properly. Like all potentially hazardous materials, this product must be kept out of the reach of children.

Efficient Blending, Reduced Dust Levels

Flo-Gard SP silica blends easily. Because of its very fine, uniform particle size, it requires no preblending. It can be metered directly into the process stream, mixer or spray drier. Using a test method developed by PPG to measure product dust levels, *Flo-Gard* SP silica has been shown to be a superior performing flow-aid. In some spice applications, *Flo-Gard* SP silica was shown to generate lower dust levels than those applications containing equal loadings of competitive anticaking agents such as sodium aluminosilicate.

High Absorption

Flo-Gard SP silica offers significant cost savings since it provides equivalent anti-caking efficiency at lower loadings compared to many competitive alternatives such as sodium aluminosilicate. *Flo-Gard* SP is effective across a wide variety of applications, allowing flow conditioner inventories to be reduced.

Packaging

Standard packaging as follows:

| Product | Net weight | | Bag Construction |
|--------------------|------------|-----|------------------|
| | lb | kg | |
| <i>Flo-Gard</i> SP | 20 | 9 | Multi-Wall Paper |
| <i>Flo-Gard</i> SP | 44 | 20 | Multi-Wall Paper |
| <i>Flo-Gard</i> SP | 600 | 272 | FIBC |

Please consult with Silica Customer Service or your Silica Sales Representative regarding additional packaging options, including custom package sizes and bulk shipments in Flexible Intermediate Bulk Container (FIBC), truckload, or railcar units.

Visit www.ppgsilica.com for MSDS and product specifications.



PPG Industries

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