Flo-Gard™ silica products are suitable for use as Food/Feed additives as well as for indirect Food Contact applications as specified in the applicable USA and European regulations.

**General Information**

**Name:** Synthetic amorphous silica

**Description:** *Flo-Gard* silicas are synthetic, hydrated amorphous silicas, covered by CAS REGISTRY NUMBER: 112926-00-8 (CAS# 7631-86-9 for TSCA inventory purposes) – Synthetic amorphous precipitated silica (polysilicic acid), EC Number 231-545-4.

**Composition:** Chemical composition information is available in the product safety data sheet (SDS).

**Contact Information:** For specific inquiries, please contact your PPG Sales, Customer Service or Technical Service Representative at:

**United States**
Customer Service: 1-800-243-6745  
Technical Service: 1-800-764-7369  
E-mail: silicacustserv@ppg.com

**Europe**
Customer Service: +31-596-676710  
Technical Service: +31-596-676710  
E-mail: csdelfzijl@ppg.com
United States of America (USA) Regulatory Information

FDA STATUS
Silicon dioxide (i.e. Flo-Gard silica) is specifically approved for use in the following sections of the Food and Drug Administration (FDA), Title 21 Food and Drugs, Code of Federal Regulations (CFR). See specific citations for possible limitations on use:

For direct food contact uses, silicon dioxide is cleared under:
- §133.146 (Grated Cheese)
- §160.105 and §160.185 (Dried Eggs)
- §172.230 (Flavoring Substances)
- §172.480 (Anticaking Agent)
- §173.340 (Defoaming Agent)
- §573.940 (Animal Feed)

For indirect food contact uses, silicon dioxide is cleared under:
- §175.105 (Adhesives)
- §177.2420 (Cross-Linked Polyester Resin)
- §177.2600 (Rubber Articles)
- §182.90 (Paper and Paperboard)
- §178.3297 (Indirect Food Additives, Adjuvants, production aids, and sanitizers subpart D- Certain Adjuvants and Production Aids for indirect food contact uses)
- §176.170 (Components of paper and paperboard in contact with aqueous and fatty foods)
- §176.180 (Components of paper and paperboard in contact with dry food)

Silicon dioxide (i.e. Flo-Gard silica) is exempted from the tolerance requirements under:
- §182.99 (Adjuvants for Pesticide Chemicals) and is specifically listed as an acceptable inert in pesticide formulations under EPA 40 CFR §180.950 as “silica gel, precipitated, crystalline-free, CAS No. 112926-00-8”

There are no generic FDA approvals for silicon dioxide so each application needs to be looked at individually. Other applications may be acceptable after a review of the proposed use and regulations. Inquiries must be made in writing to silicacustserv@ppg.com. To avoid delays in providing a response, please be as specific as possible in your inquiry, and provide the complete name of the PPG product that is subject of your request.

FACILITY REGISTRATIONS
FDA Bioterrorism Act of 2002 Section 305 (Registration of Food Facilities)
- Barberton, Ohio USA (17822360434)
- Delfzijl, The Netherlands (12604220748)
- Westlake, Louisiana USA (19776848546)

FDA Food Safety Modernization Act (FSMA) (Registration of Food Facilities)
- Barberton, Ohio USA (17822360434)
- Delfzijl, The Netherlands (12604220748)
- Westlake, Louisiana USA (19776848546)
BATF STATUS
Silicon dioxide (silica) is specifically approved for use in the following section of the Bureau of Alcohol, Tobacco, and Firearms (BATF), Title 27 Alcohol, Tobacco Products and Firearms, Code of Federal Regulations (CFR). It is listed for use under §24.246 (Materials Authorized for Treatment of Wine and Juice). See specific citations for possible limitations on use.

USDA STATUS
Silicon dioxide (silica) is specifically approved for use in the following section of the U.S. Department of Agriculture (USDA), Title 9 Animals and Animal Products, Code of Federal Regulations (CFR). It is listed for use under §424.21 (Use of Food Ingredients in Preparation and Processing Operations). See specific citations for possible limitations on use.

REGULATORY AND SPECIFIC PRODUCT INFORMATION
- **California Proposition 65**
  If applicable, the warning statements appear in Section 15, “REGULATORY INFORMATION” on the product Safety Data Sheet (SDS). Additionally, the SDS provides information to guide users to minimize exposure.

  These products do not contain lead in quantities greater than 0.009% or di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), benzyl butyl phthalate (BBP), diisononyl phthalate (DINP), diisodecyl phthalate (DIDP), or di-n-octyl phthalate (DnOP) in quantities greater than 0.1%.

- **Toxics in Packaging Clearing House (TPCH) (formerly CONEG Regulation / Heavy Materials in Packaging)**
  Lead, cadmium, mercury, and hexavalent chromium are not intentionally added to these products and the sum of the incidental concentration levels of these metals does not exceed 100 parts per million (ppm) by weight.

- **Toxic Pollutants/Priority Pollutants**
  These products do not contain toxic pollutants / priority pollutants as listed in 40 CFR 401.15.

- **RCRA Hazardous Waste Chemical**
  To our knowledge, these products, if discarded or spilled, would not be a regulated hazardous waste under 40 CFR 261, but we have not tested them by the Toxicity Characteristic Leaching Procedure. Consult Product Safety Data Sheet (SDS) for additional information.

- **VOC Information**
  These products do not contain constituents that qualify as volatile organic compounds based on the definition in 40 CFR 51.100.

- **HAP Information**
  These products do not contain hazardous air pollutants (HAPs) as listed in the Clean Air Act Amendments of 1990, 42 USC 7412(b).

- **Ozone-Depleting Chemicals**
  These products do not contain ozone-depleting chemicals as listed in 40 CFR 82, Subpart A, Appendix F.

- **TSCA**
  The constituents of these products are not currently subject to any rule or order under TSCA Sections 4, 5, 6, 7, 8, or 12(b).
European Union (EU) Regulatory Information

FOOD ADDITIVE
To our knowledge, these products are in agreement with purity criteria defined in EU Directive 231/2012/EC. If these products are used as food additives in conformance with EU Directive 1333/2008/EC (Annex II amended by 438/2013/EC) and 1129/2011/EC, they can be referenced by EU Food Additive Number E551.

FEED ADDITIVE
E551a (Silicic acid, precipitated and dried) is listed in Chapter III, “Other additives authorized for an unlimited time,” in the List of Additives as required by Article 9t(b) of EU Directive 70/524/EEC. Flo-Gard silica products have been registered with the EU Commission as required under regulation 2003/1831/EC (amended 2008/429).

FOOD CONTACT
Silicon dioxide (silica) is included in Annex III (Incomplete list of additives which may be used in plastic material and articles) of EU Directive 90/128/EC relating to plastic materials and articles intended to come into contact with food.

REGULATORY AND SPECIFIC PRODUCT INFORMATION

• RoHS/WEEE
  These products have been reviewed with regard to the EU Directive 2011/65/EC “Restriction on the Use of Certain Hazardous Substances” (RoHS). Based on our knowledge of these products and the information on the raw material suppliers’ safety data sheets, these products do not contain cadmium, hexavalent chromium, lead, mercury, polybrominated biphenyls (PBBs) or polybrominated diphenyl ethers (PBDEs) at levels greater that the tolerated maximum concentration values established by the EU Commission Decision 2011/65/EC.

• End of Life Vehicle (ELV)
  These products have been reviewed with regard to the EU Directive 2000/53/EC. Based on our knowledge of these products and the information on the raw material suppliers’ safety data sheets, these products do not contain intentionally added cadmium, hexavalent chromium, lead and mercury.

• Heavy Metals in Packaging and Packaging Waste
  These products have been reviewed with regard to the EU Directive 94/62/EC. Based on our knowledge of these products and the information on the raw material suppliers’ safety data sheets, these products do not contain Perfluorooctane sulfonates (PFOS) at levels equal or greater than 0.005% by mass.

  These products have been reviewed with regard to EN71:3 Part3:1994 + A1:2000/AC:2002 and based on our knowledge of these products and the information on the raw material suppliers’ safety data sheets, these products do not contain antimony, arsenic, barium, cadmium, chromium, lead, mercury, and selenium at levels greater than the tolerated maximum concentration values.
Phthalates Absence Directive (2005/84/CE)
These products have been reviewed with regard to EU Directive (2005/84/EC) and based on our current knowledge of these products and the information (such as safety data sheets [SDSs]) provided to PPG by its raw material suppliers, bis (2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), benzyl butyl phthalate (BBP), di-"isononyl" phthalate (DINP), di-"isodecyl" phthalate (DIDP), and di-n-octyl phthalate (DNOP) are not intentionally added to these products and we would not expect these substances to be present in the products.

Substances of Very High Concern (SVHC)
We have reviewed these products with regard to the substances included in the March 4, 2013 SVHC candidate list and based on our current knowledge of these products and the information (such as safety data sheets [SDSs]) provided to PPG by its raw material suppliers, these products do not contain any of the substances included in the Candidate List at levels greater than the tolerated maximum concentration values established by the EU Regulation 1907/2006/EC, or above 0.1%, whichever is the lower. PPG undertakes to monitor and review any future modifications to the SVHC list in relation to our product range, and to inform our customers of any identified product issues in a timely manner.

VOC Information
These products do not contain constituents that qualify as volatile organic compounds based on the definitions in EU Directives 1999/13/EC and 2004/42/EC.

Certifications and Listings

CERTIFICATIONS

- Quality Management System
  Certified under ISO 9001:2008 (Det Norske Veritas is our registrar).

- Kosher
  These products are certified Kosher for Passover and year-round use by the Orthodox Union. Certificates are available upon request.

- Halal
  Flo-Gard silica products are not Halal Certified, but based on our current knowledge of these products and the information (such as safety data sheets [SDSs]) provided to PPG by its raw material suppliers, no plant, ethanol, or animal derived materials are intentionally added to these products and we would not expect these substances to be present in these products.

- NAFTA Status
  NAFTA status and NAFTA Certificates of Origin for these products are available by request to fax number 412-434-3548 or email to Classification@ppg.com.
LISTINGS

• Food Chemical Codex
These products meet the Food Chemical Codex specifications (Eighth Edition).

• Nutritional Value
These products do not have nutritional value (0 g Protein, Carbohydrates and Fats and 0 kJ Energy per 100 grams). These products are routinely tested and contain less than 1 weight % sodium.

• Genetically Modified Organisms (GMOs)
These products are not manufactured with and do not contain genetically modified organisms.

• Bovine Spongiform Encephalopathy
These products are not of animal origin, and, to the best of our knowledge, do not contribute to Transmissible Spongiform Encephalopathy (TSE) / Bovine Spongiform Encephalopathy (BSE).

• Source
These products are derived from mineral and synthetic sources and have not been derived from a plant, animal, petroleum, or fermentation source.

• Natural Latex Rubber
These products are not manufactured with and do not contain natural latex rubber, a material defined in 21 CFR 801.437 (b)(1).

• Processing / Manufacturing
No post treatment is applied to these products. Sewage sludge, ionizing radiation, and pesticides are not used in the manufacturing process.

• Bisphenol A
Based on our current knowledge of these products and the information (such as safety data sheets [SDSs]) provided to PPG by its raw material suppliers, Bisphenol A is not intentionally added to these products and we would not expect Bisphenol A to be present in these products.

• Melamine
Based on our current knowledge of these products and the information (such as safety data sheets [SDSs]) provided to PPG by its raw material suppliers, Melamine is not intentionally added to these products and we would not expect Melamine to be present in these products.

• Organic
Silicon dioxide (i.e. Flo-Gard silica) is classified as an "allowed synthetic" under CFR Title 7: Agriculture, PART 205—NATIONAL ORGANIC PROGRAM, Subpart G—Administrative, § 205.605 Nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food groups(s))", part (b) Synthetics allowed.
FOOD ALLERGENS

• Food Allergen Labeling and Consumer Protection Act of 2004 (Public Law 108-282, Title II)
  Milk, eggs, fish, crustacean shellfish, tree nuts, peanuts, wheat, gluten and soybeans are not intentionally added to the products and we would not expect them to be present in these products.

• ALBA list and Allergens (as identified by the U.S. Food and Drug Administration in Compliance Policy Guide), Sec. 555.250 Statement of Policy for Labeling and Preventing Cross-contact of Common Food Allergens, Issued: 04/19/2001
  Allergens listed in this policy are not intentionally added to the products and we would not expect them to be present in these products.

  Allergens listed in EU Directive 2006/142/EC are not intentionally added to the products and we would not expect them to be present in these products.

• CODEX Labeling of Prepackaged Foods (CODEX STAN 1-1985)
  Cereals containing gluten; i.e., wheat, rye, barley, oats, spelt or their hybridized strains and products of these; Crustacea and products of these; Eggs and egg products; Fish and fish products; Peanuts, soy beans and products of these; Milk and milk products (lactose included); Tree nuts and nut products; and Sulphite in concentrations of 10 mg/kg or more are not intentionally added to the products and we would not expect them to be present in these products.

• Australia New Zealand Food Standards Code (Labeling)
  Peanuts, tree nuts, soy, milk, egg, cereals, seafood, fish sesame or derivatives and sulphites (in concentration ≥ 10 ppm) are not intentionally added to the products and we would not expect them to be present in these products.

• Canada Gazette, PART II (CGII) Food Allergen Labeling Requirements - August 4, 2012
  Eggs, milk, mustard, peanuts, seafood (fish, crustaceans, shellfish), sesame, soy, sulphites, tree nuts, and wheat are not intentionally added to the products and we would not expect them to be present in these products.
Corporate Responsibility / Policies

CORPORATE MEMBERSHIPS
As a member of the American Chemistry Council (ACC) PPG is committed to the Responsible Care® initiative, an industry commitment to improve environmental, health, safety and security performance. Please consult the ACC (www.american-chemistry.com), and PPG’s Corporate Environment, Health, and Safety (http://www.ppg.com/en/sustainability/ehs/Pages/default.aspx) for information regarding the following:

- Measuring and publically reporting performance
- Implementing the Responsible Care Security Code
- Applying an EHS Management System to achieve and verify results
- Obtaining independent certification that the management system is in place and functioning appropriately

CORPORATE POLICIES
Additional PPG Policies and Practices regarding the following topics can be found at the following sites:

- PPG Employees and the Workplace: http://sustainability.ppg.com/employees.aspx
- Conflict Minerals Sourcing Policy
  PPG is aware of Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the Securities and Exchange Commission’s (SEC) final rules requiring PPG to publicly disclose its use of certain conflict minerals beginning in 2014. Columbite-tantalite, cassiterite, wolframite, tin, and gold are not intentionally added to these products.

References

PPG SILICA WEB PAGE
www.ppgsilica.com

Statements and methods presented are based upon the best available information and practices known to PPG Industries at present, but are not representations or warranties of performance, result or comprehensiveness. Further, the information provided herein, including any specific reference to patents of other persons or entities, is not to be taken as a license to operate under or a recommendation to practice any patents, copyrights, or any other intellectual property right of any person or entity.