CARBOWAX™ and CARBOWAX SENTRY™
Polyethylene Glycol 4000

Product Description
CAS # 25322-68-3
CHEMICAL FAMILY—Oxyalkylene Polymer
CTFA NOMENCLATURE — PEG-90

Typical Physical Properties
Average Molecular Weight Range 3600 to 4400
Average Hydroxyl Number Range 31 to 26
Average Number of Repeating Oxyethylene Units 90.5
Density (g/cm³ @ 60°C) 1.0926
Melting or Freezing Range 57 to 59°C (135 to 138°F)
Solubility in Water (Wt% @ 20°C) 66
Viscosity (cSt @ 99°C) 140.4
Avg. Liquid Specific Heat (cal/g/°C) 0.51
Heat of Fusion (cal/g) 45
pH at 25°C (5% Aqueous Solution) 4.5 to 7.5

Shipping Information
Physical Form Flake or Powder
Bulk Density Flake 30 lbs/ft³
Bulk Density Powder 40 lbs/ft³
Flash Point
Pensky-Martens closed cup (ASTM D93) >220°C (430°F)
Cleveland open cup (ASTM D92) >270°C (515°F)

Typical Known Applications for Polyethylene Glycol
- Adhesives
- Agriculture
- Ceramics
- Chemical Intermediates
- Cosmetics
- Toiletries
- Electroplating / Electropolishing
- Food Processing
- Household Products
- Lubricants
- Metal / Metal Fabrication
- Paints & Coatings
- Paper Industry
- Pharmaceuticals
- Printing
- Rubber & Elastomers
- Textiles
- Wood Processing
**FDA Status**

CARBOWAX SENTRY™ Polyethylene Glycols are produced to meet the requirements of the National Formulary (NF) monograph for drug applications and the Food Chemicals Codex (FCC) monograph for certain food and feed applications.

**Handling and Storage**

CARBOWAX™ Polyethylene Glycol 4000 is sold as a solid in bags or fiber drums. The containers should be kept sealed and should not be stored next to steam lines or other heat sources that could cause the product to soften or melt. Recommended storage temperature is below 40°C (105°F).

**Product Stewardship**

Dow encourages its customers and potential users to review their applications from the standpoint of human health and environmental aspects. To help ensure that Dow products are not used in ways for which they are not intended or tested, Dow personnel will assist customers in dealing with environmental and product safety considerations. Dow literature, including Material Safety Data Sheets, should be consulted prior to use.

**Contact information:**

North America: 1-800-447-4369  
Fax: 1-989-832-1465  
Europe: +800-3-694-6367  
Tel: +32-3-450-2240  
Fax: +32-3-450-2815  
Pacific: +603-7958-3392  
Fax: +603-7958-5595  

http://www.dowpolyglycols.com

**NOTICE:** No freedom from any patent owned by Seller or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer’s use and for ensuring that Customer’s workplace and disposal practices are in compliance with applicable laws and other governmental enactment. Seller assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.