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Good Sensations Sherbet Stabilizer

Product Bulletin

How does Good Sensations Sherbet Stabilizer Blend work to improve the texture of Sherbet and similar frozen desserts

Good Sensations Sherbet Stabilizer blend is used to stabilize and improve the texture of Sherbets. Must be pasteurized and homogenized for full effectiveness. Suggested usage 0.45%

The ingredients are: Mono-diglycerides, guar gum, polysorbate 80, locust bean gum, pectin, dextrose

Okay, let's break down how this specific blend of stabilizers and emulsifiers works to improve the body and texture of sherbet:

Understanding Sherbet's Challenges:

Sherbet, being a frozen dessert typically lower in fat than ice cream, faces unique challenges in achieving a smooth, creamy, and stable texture:

- **Ice Crystal Formation:** The high water content in sherbet makes it particularly susceptible to the formation of large, undesirable ice crystals.
- **Lack of Creaminess:** The lower fat content makes it harder to achieve a rich, creamy texture.
- **Separation:** The components can separate during freezing or storage.

How the Stabilizer and Emulsifier Blend Addresses These Challenges:

1. **Mono- and Diglycerides (Emulsifier):**
 - **Fat Dispersion:** While sherbet is low in fat, even a small amount of fat or fat-based flavors benefit from emulsification. DMG helps to distribute any fat present evenly, which contributes to a smoother texture.
 - **Air Incorporation:** DMG improves the ability of the sherbet mix to incorporate and retain air during the churning process, leading to a lighter texture and a greater perceived volume.
2. **Guar Gum and Locust Bean Gum (Thickeners and Stabilizers):**
 - **Water Binding:** These gums excel at binding water and reducing the availability of "free" water, which helps control ice crystal growth.
 - **Viscosity Increase:** Guar and LBG thicken the sherbet base, giving it a richer mouthfeel and preventing it from being too watery.
 - **Synergistic Effect:** When used together, guar gum and LBG create a synergistic effect, enhancing their individual contributions to the stability and texture of the sherbet, .
3. **Polysorbate 80 (Emulsifier and Stabilizer):**
 - **Emulsification:** Polysorbate 80 helps to stabilize the emulsion and further enhance the dispersion of any fat or oil-based flavorings, contributing to a smoother, more homogeneous texture.
 - **Freeze-Thaw Stability:** It can improve the sherbet's resistance to changes during freeze-thaw cycles.
 - **Enhanced Air Retention:** Polysorbate 80 can also help to improve air retention in the sherbet mix.
4. **Pectin (Stabilizer and Texture Modifier):**
 - **Water Holding:** Pectin binds water, reducing free water and controlling ice crystal size.

- **Texture Modification:** Pectin contributes to a smooth, gel-like texture and can enhance the sherbet's mouthfeel.
- **Acid Stability:** Pectin is often chosen for its stability in acidic environments, making it particularly well-suited to the fruit-based nature of many sherbets.

How They Work Together:

- **Multi-Layered Stabilization:** This blend addresses multiple aspects of sherbet stabilization, including controlling ice crystals (guar, LBG, Pectin), improving texture (guar, LBG, Pectin, DMG), and ensuring stability (Polysorbate 80).
- **Enhanced Creaminess:** The blend works to create a smooth, rich, creamy texture despite the lower fat content.
- **Prevention of Separation:** It also helps to prevent separation of the various components of the sherbet, especially during storage.

In summary, this stabilizer and emulsifier blend works synergistically to create a sherbet with a desirable creamy texture, a smooth body, and improved stability, despite the challenges of its lower fat content and higher water content.

Specifications:

PHYSICAL/ORGANOLEPTIC

Form: Powder

Color: Off white

Odor: No discernable odor

Flavor: No discernable flavor

Chemical

Parameter	Min	Max	Units
Viscosity (1.5%) (RV@100rpm,25°C)	500	900	CPS
pH (1.5%)	5.0	9.0	pH

Microbiological

Parameter	Specification (Max)
Standard Plate Count	10,000 /g
Mold and Yeast	100 /g
Coliform	10 /g
Salmonella	Negative

Packaging

A. Packed in multi-wall fiber drums with poly-lined bags, cardboard boxes with poly liner bags.

B. Outside of containers to be labeled with:

1. Product name

2. Lot number

3. National Stabilizers' name and address

4. Net contents/weight

5. Ingredient Statement

6. Only if applicable-Kosher Symbols, Customer Codes, Production Date and/or Expiration Date

Standard Packing: 50 lb. bag in box, 2000- lb. per pallet.

Optional Pack Sizes: 1 lb pouch, 10 lb bag in box

MOQ is flexible

Storage

Store in a cool (60-80 ° F), dry place.

Shelf Life

Shelf Life: 9 months

Ingredients

Guar Gum, Locust Bean Gum, Polysorbate 80, Pectin, Standardized with Dextrose.

Nutritional Information (per 100g)

Parameter	Value	Unit
Calories	480	Kcal
Total Fat	28	g
Saturated Fat	26	g
Trans Fat	0	g
Cholesterol	0	mg
Sodium	15	mg
Total Carbohydrates	60	g
Dietary Fiber	38	g
Total Sugar	7	g
Added Sugar	6	g
Protein	2	g
Vitamin D	0.1	mcg

Calcium	20	mg
Iron	0	mg
Potassium	90	mg
Vitamin A	0	mcg
Vitamin C	0	mg

Usage Levels

Suggested Level: 0.35 % based on total batch weight.

Intended Use: Used in sherbets.

Certifications

Kosher

General:

- A. This material will comply with the requirements of the Federal Food, Drug, and Cosmetic Act and its amendments.
- B. This material will be manufactured under good manufacturing practices as prescribed by F.D.A. regulations.
- C. This material is subject to approval by the Quality Control Laboratory.
- D. This material will conform to specifications contained in the Food Chemicals Codex.