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Good Sensations Ice Cream Stabilizer

Product Bulletin

How does Good Sensations Ice Cream Stabilizer Blend work to improve the texture of Ice Cream

Good Sensations Ice Cream Stabilizer blend is used to stabilize and improve the texture of ice cream. Must be pasteurized and homogenized for full effectiveness. Suggested usage level: 0.3%

The ingredients are: Mono-diglycerides, guar gum, polysorbate 80, cellulose gum, locust bean gum, carrageenan

Okay, let's break down how this specific blend of stabilizers and emulsifiers works together to create a smoother, creamier, and more stable ice cream:

1. Mono- and Diglycerides (Emulsifier):

- **Fat Emulsification:** Mono- and diglycerides (DMG) are the key emulsifiers in this blend. They help disperse fat globules finely and evenly throughout the ice cream mix.
- **Air Incorporation:** DMG improves the ability of the mix to incorporate and retain air during churning (overrun).
- **Smoothness and Creaminess:** DMG enhances the overall smoothness, creaminess, and texture of the ice cream.

2. Guar Gum and Locust Bean Gum (Thickeners and Stabilizers):

- **Water Binding:** Both gums are excellent at binding water, reducing the amount of free water available to form large ice crystals.
- **Increased Viscosity:** Guar gum and LBG increase the viscosity of the ice cream mix, giving it a richer, more full-bodied mouthfeel.
- **Ice Crystal Control:** They help to reduce ice crystal size, leading to a smoother texture.

3. Polysorbate 80 (Emulsifier and Stabilizer):

- **Emulsification:** Polysorbate 80 is a powerful emulsifier, helping to stabilize the fat emulsion further and prevent separation.
- **Freeze-Thaw Stability:** It improves the ice cream's ability to withstand temperature fluctuations during storage and handling without significant textural changes.
- **Improved Wetting Properties:** It can improve the wetting properties of the mix, making it easier to churn and fill into containers.

4. Cellulose Gum (CMC) (Stabilizer and Ice Crystal Control):

- **Water Binding:** CMC binds water, preventing the formation of large ice crystals.
- **Thickening:** CMC also thickens the ice cream base, increasing viscosity.
- **Freeze-Thaw Stability:** It contributes to freeze-thaw stability.

5. Carrageenan (Stabilizer and Texture Modifier):

- **Gel Formation (Kappa):** Depending on the type, carrageenan can form weak gels that improve the body and mouthfeel.
- **Protein Stabilization:** In dairy applications, carrageenan reacts with milk proteins to stabilize the mix.
- **Prevents Syneresis (Wheying-Off):** It can help prevent separation of liquid (wheying off) from the ice cream.

How They Work Together:

- **Multi-Faceted Stabilization:** This blend combines emulsification (DMG, Polysorbate 80) with water binding and viscosity enhancement (guar, LBG, CMC) to address all the critical challenges in ice cream production.
- **Optimal Texture:** The gums and carrageenan help create a smooth, creamy texture and mouthfeel.

- Freeze-Thaw Stability: Polysorbate 80 and CMC improve the ice cream's resistance to temperature fluctuations.
- Prevents Separation: The blend works synergistically to maintain a stable emulsion, preventing separation and improving overall quality.

In summary, this complex blend of emulsifiers and stabilizers creates a well-balanced ice cream base with excellent texture, body, stability, and resistance to temperature fluctuations. This leads to a premium ice cream with superior quality and a desirable eating experience.

Specifications:

PHYSICAL/ORGANOLEPTIC

Form: Powder
 Color: Off white
 Odor: No odor
 Flavor: No Flavor

Chemical

Parameter	Min	Max	Units
Viscosity (1.5%) (RV@100rpm,25°C)	300	1100	CPS
pH (1.5%)	6.0	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 cardboard boxes with poly bag liner.

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

Mono- and Diglycerides, Guar gum, Polysorbate 80, Cellulose gum, Locust bean gum, and Carrageenan.

Nutritional Information (per 100g)

Parameter	Value	Unit
Calories	530	Kcal
Total Fat	33	g
Saturated Fat	0	g
Trans Fat	0	g
Cholesterol	0	mg
Sodium	420	mg
Total Carbohydrates	57	g
Dietary Fiber	32	g
Total Sugar	1	g
Added Sugar	1	g
Protein	2	g
Vitamin D	0.1	mcg
Calcium	60	mg
Iron	0.1	mg
Potassium	150	mg
Vitamin A	0	mcg
Vitamin C	0	mg

Usage Levels

Suggested Level: 0.3% per total batch weight

Intended Use: Ice cream products.

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.