



National Stabilizers, Inc.



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Good Sensations Frozen Fruit Bar Stabilizer

Product Bulletin

How does Good Sensations Frozen Fruit Bar Stabilizer Blend (Guar and Cellulose Gum) work to improve the body and texture of frozen fruit bars

Good Sensations Frozen Fruit Bar Stabilizer Blend (Guar & Cellulose Gum) is used for body and texture improvement. It is cold water soluble. Suggested usage level is 0.3%

Guar gum and cellulose gum (CMC) are a common combination in frozen fruit bars, and they work together synergistically to improve the product's texture and stability.

Here's how they contribute:

- **Guar Gum:**
 - **Thickening and Body:** Guar gum is excellent at increasing viscosity and providing a smoother, more substantial body to the fruit bar base.
 - **Water Binding:** It helps to bind water, reducing free water content, which helps to control the growth of ice crystals during freezing.
 - **Creamy Mouthfeel:** Guar gum contributes to a softer and more creamy texture.
 - **Flexibility:** Guar gum helps make the frozen fruit bar more flexible and less prone to cracking or becoming brittle.
- **Cellulose Gum (CMC):**
 - **Ice Crystal Control:** CMC helps to prevent the formation of large ice crystals, resulting in a smoother and less icy texture.
 - **Stabilization:** It stabilizes the mixture, preventing the separation of the fruit pulp and liquid components.
 - **Improved Freeze-Thaw Stability:** CMC helps the fruit bars withstand temperature fluctuations without significant textural changes.
 - **Texture Modification:** It contributes to a better mouthfeel and can help to mimic the texture of a higher fat product.

The Synergistic Effect:

- Guar gum provides the viscosity, creaminess, and flexibility, while CMC reinforces ice crystal control, stabilizes the mix, and enhances freeze-thaw stability.
- The combination results in frozen fruit bars with a smoother, creamier texture, reduced iciness, and better overall stability.
- They also help to prevent separation or syneresis (watery layers forming), which is especially important in frozen fruit bars made with fruit purees.

In summary, guar gum and cellulose gum work together to improve the overall quality of frozen fruit bars by controlling ice crystal formation, enhancing texture, preventing separation, and improving their ability to withstand freeze-thaw cycles.

Specification

PHYSICAL/ORGANOLEPTIC

Form: Powder

Color: Off white

Odor: Typical

Flavor: Typical

Chemical

Parameter	Min	Max	Units
Viscosity (1.0%) (RV@100rpm,25°C)	600	1550	CPS
pH (1.0%)	6.0	8.0	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, Cellulose gum, sugar.

Nutritional Information (per 100g)

Parameter	Value	Unit
Calories	350	Kcal
Total Fat	0	g
Saturated Fat	0	g
Trans Fat	0	g
Cholesterol	0	mg
Sodium	1970	mg
Total Carbohydrates	84	g
Dietary Fiber	45	g
Total Sugar	20	g
Added Sugar	20	g
Protein	3	g
Vitamin D	0	mcg
Calcium	20	mg
Iron	0.3	mg
Potassium	90	mg
Vitamin A	0	mcg
Vitamin C	1	mg

Usage Levels

Suggested Level: 0.2% to 0.3% based on total batch weight (dry blended with sugar or other mixed-in solids for proper dispersal).

Intended Use: Popsicles, water ices, sorbets.

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.