

PRODUCT DATA SHEET

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Refined Iota Carrageenan

INS 407 | E 407 | CAS 11114-20-8

CAG-Iota™ 200

1. PRODUCT DESCRIPTION

CAG-Iota™ 200 is a high-purity refined iota carrageenan extracted from selected red seaweed (*Eucheuma denticulatum*). It is designed for applications requiring soft, elastic gel texture, superior freeze-thaw stability, and clean label performance. The product forms smooth, cohesive, non-brittle gels in the presence of calcium ions and provides excellent suspension and emulsion stability across a wide range of formulations.

2. KEY FEATURES & BENEFITS

- ◆ Soft & Elastic Gel Texture
- ◆ Excellent Freeze-Thaw Stability (No Syneresis)
- ◆ Clean, Clear Gel Appearance
- ◆ Strong Milk Protein Reactivity
- ◆ Shear-Thinning & Easy Processing
- ◆ Consistent Batch-to-Batch Performance
- ◆ Suitable for Food, Pharma & Personal Care

3. TYPICAL APPLICATIONS

Application	Function	Usage Level
Dairy Desserts	Soft creamy gel, prevent syneresis	0.1–0.5%
Ice Cream	Ice crystal control, melt resistance	0.02–0.05%
Chocolate Milk	Cocoa suspension	0.01–0.03%
Yogurt	Whey separation control	0.02–0.05%
Infant Formula	Emulsion stabilization	0.01–0.03%
Pet Food	Elastic loaf structure	0.2–0.8%
Processed Meat	Water binding & texture	0.1–0.5%
Sauces & Dressings	Viscosity & suspension	0.1–0.5%
Toothpaste	Rheology control	0.3–1.0%

4. PRODUCT SPECIFICATIONS

Parameter	Specification
Appearance	White to off-white powder
Particle Size	≥95% through 120 mesh

Parameter	Specification
Loss on Drying	≤12%
Total Sulfate	25–34% (Iota typical)
Acid-Insoluble Matter	≤2%
pH (1.5%)	7.0–11.0
Heavy Metals	Meets international standards
Microbiological	Food grade compliant

Full specification sheet available upon request.

5. REGULATORY COMPLIANCE

CAGCAR™ 500 complies with: • JECFA (INS 407) • EU Regulation (E 407) • FCC • GB 1886.169-2016

Certifications available: ISO 9001 | ISO 22000 / FSSC 22000 | HACCP
Halal | Kosher (Pareve) | Non-GMO | Allergen-Free | Vegan Suitable

6. PACKAGING

Inner Packaging: Food-grade PE liner (50-80 µm thickness)

Outer Packaging: Multilayer kraft paper bag, plastic woven bag, or fiber drum

Net Weight: 25 kg / bag (standard), 20 kg / carton (for food service), 500 kg / jumbo bag (bulk orders)

Pallet Configuration: 40 bags per pallet (1000 kg net)

Container Loading: Approximately 20,000 kg per 20' FCL

Custom Packaging: Available upon request (custom weights, labeling)

7. STORAGE CONDITIONS & SHELF LIFE

Storage Conditions: Store in a cool, dry place away from direct sunlight, heat sources, and strong odors. Temperature: < 25°C recommended (optimal 10-20°C), Relative Humidity: < 60%

Shelf Life: 24 months from date of manufacture when stored under recommended conditions

Transport: Strictly prohibit transport with poisonous materials; protect from moisture and contamination

For detailed technical data, samples, or customized grades, please contact CAG.

This product data sheet provides typical technical data and should be used for initial product evaluation. Specifications are based on JECFA (FAO/WHO), EU Commission Regulation for E 407, GB 1886.169-2016, and FCC standards. Actual values may vary slightly depending on the specific grade, seaweed source (harvest season, farming location), and production batch. For specific formulation assistance or custom grade requirements, please contact our technical support team.