

Microencapsulated Products

Developed through extensive research and design optimization, our proprietary microencapsulation process surrounds active particles with a protective coating shell, improving target nutrient characteristics. This technology delivers extraordinary tangible improvements to the performance, stability, taste and appearance, resulting in a superior finished product.

Expertise

- Tap into a staff of 90+ R&D and product engineers specializing in microencapsulation
- In-house pilot facility for product development and scale up
- Four dedicated production lines
- Vertically integrated supply chain
- Experience in Food, Beverage, Dietary Supplement, Bakery, Confectionary

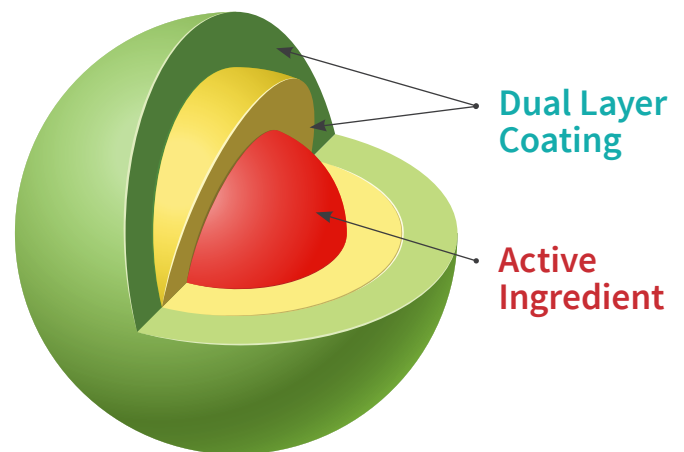
Quality

- CNAS Certified Laboratory
- NSF cGMP, ISO, HACCP Certified facility
- Six-Sigma Management Certified
- Kosher, Halal

Features & Benefits

- **Protection & Stability:** Maximize your shelf life while avoiding unwanted ingredient interactions and reducing overall exposure to oxygen, light, moisture, acids and temperature.
- **Precision dosing:** reduce costly overages from stability issues and delivers accurate and desired nutrient content consistently time and again.
- **Taste & Odor Masking:** minimize the effects of off-notes or unpleasant tastes that a nutrient might give off.
- **Effectiveness:** improve product performance, consistency and efficacy characteristics such as stability, release time, and bioavailability.
- **Superior Handling:** gain better control of products by converting liquids and oils into a dry, dustless, free-flowing powder.
- **Active & Coating Flexibility:** customized nutrient payloads and protective coating materials provide formulation flexibility based on the desired goals of the application.
- **Sustained & Time Release:** particles can be developed to protect, control and deliver the target active ingredient at precise times, under certain temperatures, or during specific digestion stages.

Superior
Nutrition
Systems



Shanghai Freeman has developed a strategic partnership with INNOBIO to bring you some of the most innovative microencapsulated solutions on the market. The INNOBIO platform provides comprehensive solutions by combining customization and flexibility to meet the most challenging formulation requirements.

Finished Forms

Our microencapsulated products are available in 3 different forms, each designed to meet specific needs.

CWS, CWD, WDP (tablet, pre-mixes, beverage)

- Proprietary nano-emulsion technology for true water-soluble powder
- Superior wetting speed and self-dispersion within 15 seconds of contact
- pH stable powder allows for flexible beverage fortification

Beadlet (tablet, gummy, capsule, food, beverage)

- Force resistance equal to 4000N per 1 cm²
- Flexible payload abilities, low surface oil content
- Gelatin free, vegetarian

Oil, Oil Suspension (soft-gel, food)

- Proprietary micro-milling technology guarantees <10um
- Industry best viscosity characteristics ensure a smooth free flowing liquid and precision soft-gel dosing
- Guaranteed three-year shelf life

Carotenoids	CWS, CWD, WDP	Beadlet	O, OS
Astaxanthin	✓	✓	✓
Lutein	✓	✓	✓
Lutein Esters	✓	✓	✓
Natural Beta-carotene	✓	✓	✓
Natural Lycopene	✓	✓	✓
Zeaxanthin	✓	✓	✓
Fatty Acids	CWS, CWD, WDP	Beadlet	O, OS
ALA	✓		✓
CLA	✓		✓
GLA	✓		✓
Instantized -BCAAs	CWS, CWD, WDP	Beadlet	O, OS
Customized I-BCAA	✓		
Instantized BCAA Powder (2:1:1)	✓		
Instantized L-Leucine Powder	✓		
Vegan I-BCAA Powder (2:1:1)	✓		
Vegan Instantized L-Leucine Powder	✓		
Oil Powders	CWS, CWD, WDP	Beadlet	O, OS
Borage Oil Powder	✓		
Coconut Oil Powder	✓		
Evening Primrose Oil Powder	✓		
Flaxseed Oil Powder	✓		
High Oleic Sunflower Oil Powder	✓		
Medium Chain Triglyceride Powder	✓		
Perilla Oil Powder	✓		
Safflower Oil Powder	✓		
Sunflower Oil Powder	✓		