

BREAKTHROUGH BEVERAGES START WITH

Q-NATURALE™ emulsifier



Transform your beverage emulsification capabilities and efficiencies, naturally

The beverage revolution is happening all around us, with consumers demanding more from their favorite drinks, including fun refreshment, exotic flavors, added nutrition, an energy boost and, increasingly, an all-natural, clean label.

Q-NATURALE™ high-efficiency emulsifier helps you meet all these trends head on. We've perfected this revolutionary ingredient to give you unique and renewable solutions for emulsifying weighted and non-weighted beverages—even clear, fortified or alcoholic beverages.



- Emulsifies sparkling and still beverages with actives, intense flavours and vibrant colours.
- Enables a high oil load with brilliant clarity, even in alcoholic beverages.
- Helps you to achieve manufacturing and supply chain efficiencies that save you money.
- Offers sustainability and environmental benefits throughout the supply chain.
- Stabilises emulsions and beverages for up to one year.

BROAD RANGE OF USAGE LEVELS

EMULSIFIER	Q-NATURALE™	GUM ARABIC	OSA STARCH
OIL-TO-EMULSIFIER RATIO	4:1	1:1.5	1:1
OIL LEVEL	8-50%	8-12%	8-12%
DISSOLUTION OR HYDRATION TIME	none	1 day	1 day
MEAN PARTICLE SIZE (MICRON)	0.25	0.35	0.28

Q-NATURALE™ emulsifier offers the same stability as traditional emulsifiers at a broad range of usage levels and with less hydration time.

UNPARALLELED HIGH OIL LOAD

	12% OIL	30% OIL	40% OIL	50% OIL
Preservative	1.5	1.5	1.5	1.5
Q-NATURALE™ emulsifier	30.0	75.0	100.0	125.0
Water	849.0	639.0	519.0	398.5
Oil phase	120.0	300.0	400.0	500.0
TOTAL	1000.0	1000.0	1000.0	1000.0
Mean PS	0.25	0.32	0.35	0.35
Emulsion stability (over 1 year)	Stable	Stable	Stable	Stable
Beverage stability	No ringing	No ringing	No ringing	No ringing
Beverage turbidity fresh (NTU)	250.0	276.0	308.0	318.0

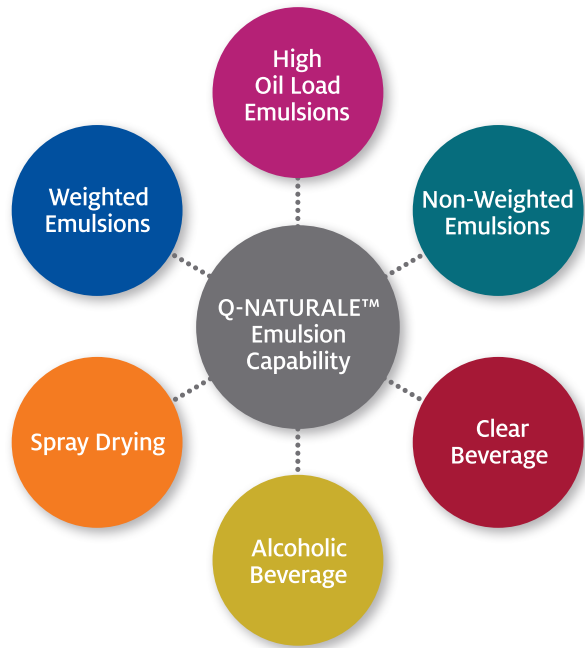
No other emulsifier can deliver up to a 50% oil load for processing and manufacturing efficiencies—and exactly the beverage transparency or opacity you want.

Q-NATURALE™ emulsifier carries three to four times the oil load of traditional systems, such as gum arabic, enabling you to achieve significant efficiencies in production, warehousing and shipping. What's more, it comes in a solution-ready liquid, allowing you to improve manufacturing efficiency by eliminating time-consuming hydration.

With its ability to create a fine particle-size emulsion, Q-NATURALE™ emulsifier offers stability across a broad range of pH levels and temperatures. You even can eliminate weighting agents in many applications, saving you more money.

Get extraordinary results with Q-NATURALE™ emulsifier

THE POWER OF Q-NATURALE™ EMULSIONS



Extracted by a natural process, Q-NATURALE™ is a highly efficient emulsifier for a wide range of beverage applications. Emulsions and beverages made with Q-NATURALE™ are stable up to one year.

A trusted, sustainable supply chain

Free from price and supply chain pressures currently associated with gum arabic, Q-NATURALE™ emulsifier is derived from the quillaja tree and grown in Chile using sustainable agriculture practices certified by the Forest Stewardship Council. Quillaja plantations can provide enough product to replace the world's supply of gum arabic used in beverages. Our exclusive partnership with Chilean growers of quillaja means formulators can have access to a secure and cost-effective alternative to gum arabic.



Q-NATURALE™ high-efficiency emulsifier gives you what you need

Natural, sustainable Q-NATURALE™ emulsifier helps you produce on-trend, clean label beverages at higher margins.

Dramatic efficiencies

- High oil load—up to four times higher than traditional systems—for lower usage levels
- Concentrated emulsion reduces inventory/warehousing, shipping and labour costs
- Solution-ready liquid for easy dispersion
- Ability to eliminate costly weighting agents in some applications.

Superior attributes

- Great alternative to gum arabic
- Can be labeled as part of the flavour system for a clean label
- Fine particle-size emulsion for greater stability
- Secure and cost-effective supply
- FDA approved/GRAS/FEMA 2973/organic certified/ Kasher/ Halal
- Certified by Forest Stewardship Council.

Unique applications

- Helps produce clear and alcoholic beverages
- Delivers tough-to-formulate actives, such as Omega 3s, conjugated linoleic acid (CLA), vitamins and more, in weighted and non-weighted systems
- Delivers challenging colours such as beta-carotene.

Satisfy consumer demands naturally and efficiently with **Q-NATURALE™** emulsifier



Use Q-NATURALE™ emulsifier to deliver oils, colors and actives in these applications:

- Carbonated beverages
- Fruit and vegetable juice drinks
- Energy drinks
- Sports drinks
- Fortified waters
- Ready-to-drink teas
- Clear and cloudy beverages
- Flavoured alcoholic beverages

Engage the beverage innovation experts at Ingredion in your next project:

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