



BEVERAGE EMULSIONS

Context

Many consumers perceive cloudy beverages as particularly natural, fruity and high quality. Thanks to hands-on experience in emulsion technology, Cavailes is able to offer you stable, standardized cloud emulsions for a wide range of different beverage applications. In addition, combining cloud emulsions with colouring concentrates or natural colours allows beverages appear even more natural. Use these positive associations for your beverages.

Formula

β-carotene coloured emulsion	0.1%
Sugar syrup 65%B	15.0%
Citric acid	0.3%
Sodium benzoate	0.1%
Water	84.5%
Total	100%

* 1 kg for each trial

Study

Particular advantages

- Excellent cloud stability in various applications
- Strong cloud effect even at low doses
- Ideal solution for cost optimization
- Broad portfolio to support different product positioning

Process

- Disperse the emulsion concentrate into the sugar syrup
- Add Na benzoate and citric acid
- Add antioxidant and (carbonated) water before bottling

Storage

- Store inside, cool and dry and well closed packaging

Analysis

- Dates of analysis: D0, D7, D17, D60 and D90
- Sensory evaluation OK
- Color stability OK
- Phase stability OK



BEVERAGE EMULSIONS

Results

Sensory evaluation

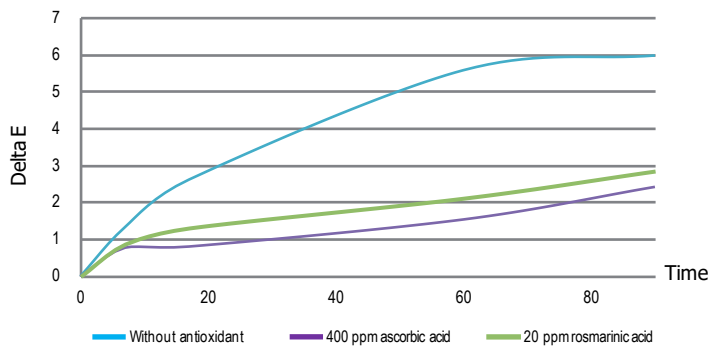
	Colour	Smell	Taste
0.4 g/kg ascorbic acid	✔	✔	✔

Usage

1000 to 1500 ppm of Cavailes Beverage Emulsion is suitable for your beverages and dressings.

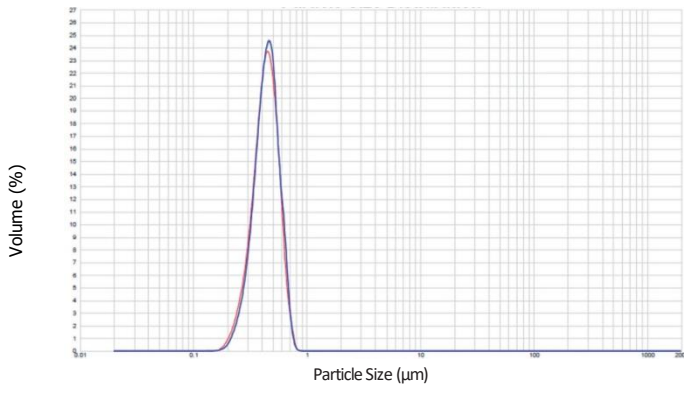
Color stability

Color stability is determined by color measurement in L*a*b* units method (Minolta colorimeter) after 12 weeks at room temperature. Delta-E (dE) is a single mathematical value that relates to the relative color evolution over time. A lower dE value indicates a better protection of the colour.



Particle size distribution

The particle size distribution is notably thin uniform (100% < 1µm), ensuring an optimal stability throughout the storage, and preventing from any risk of coalescence, sedimentation or creaming.



Particle size distribution of oil droplets measured by laser granulometry at M0, M3 months and 1 year

The information in this document has been compiled in accordance with our best knowledge at the date of issue and is based on recent technological and scientific developments. However, this information should not be considered into recommending the use of our product for its fitness for any particular purpose. Prospective purchasers are invited to conduct their own tests and studies and are advised to verify local legislation to determine the fitness of CAVAILES' products for their particular purposes and specific applications. CAVAILES accepts no responsibility for any use of the product, may it be by way of experiment or manufacture nor does CAVAILES accept any responsibility for the used techniques in any application whatsoever. CAVAILES does not warrant against infringement of laws and/or patents of third parties by reason of any use purchasers make of the product.

NATURAL COLORS

Context

Natural colours are derived from agricultural, biological, or mineral sources. Blends are often necessary to achieve a specific strength or hue.

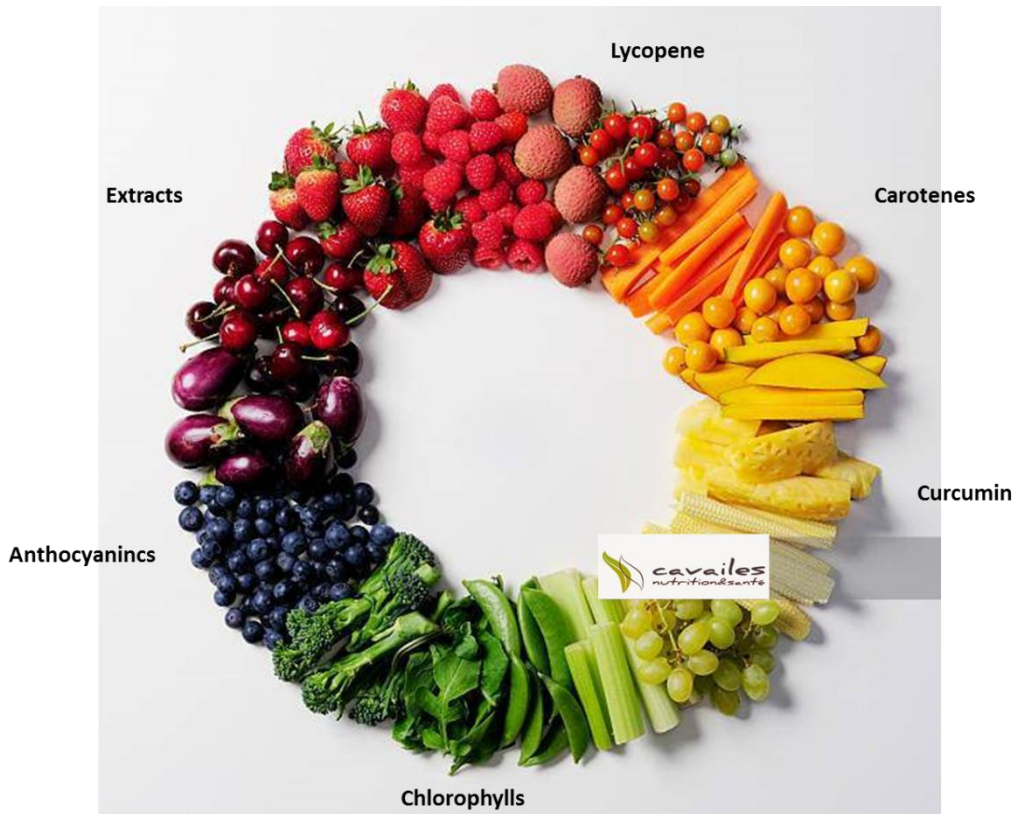
Cavailes offers a complete range of naturally-derived standard products, as well as custom blending expertise to achieve the perfect hue for any application. Our ability to add depth and stability to natural colours gives Cavailes an advantage because we are able to provide unique custom colours.

To create these tailored solutions for a wide range of applications, technical expertise is critical. Cavailes' innovation and application scientists are experts in the field of natural colours and work closely with product developers to recommend specific color solutions with the stability your product needs.

Formula

Natural color (Hibiscus)	0.1%
Sugar syrup 65%B	15.0%
Citric acid	0.3%
Sodium benzoate	0.1%
Water	84.5%
Total	100%

* 1 kg for each trial



Study

Particular advantages

- Clean label declaration
- Excellent ph, light and heat stability
- Consistent high quality
- Excellent cost-in-use
- Outstanding sensory qualities

Process

Disperse the color into the sugar syrup containing Na benzoate and citric acid. Add antioxidant and (carbonated) water before bottling.



NATURAL COLORS



Ema Right LEA Purity



Red Right LEA Purity



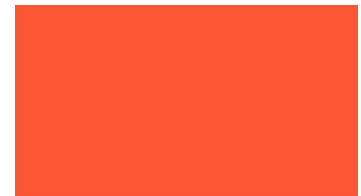
Melo Right LEA Purity



Beta Right ORA Purity



Beta Right LEA Purity



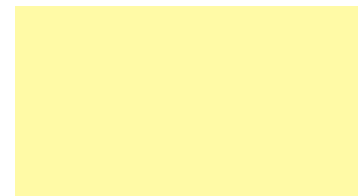
Beta Right MAN Purity



Saff Right LEA Purity



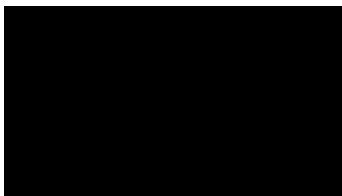
Beta Cam LEA Purity



Beta Right LEM Purity



Chlo Right LEA Purity



Caramel



Snow White AN-27

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BETA CAROTENE 5% WD

Context

Our highly concentrated, readily water dispersible beta-carotene products make it easy to create vivid red-orange products. Beta-carotene is an excellent source of provitamin A and a powerful antioxidant. Cavailes' products have an outstanding bioavailability, effectively delivering health benefits to your consumers. Thanks to hands-on experience in production technology, Cavailes is able to offer you stable, standardized beta carotene for confectionery, cheese, ice cream, dairy, beverages and prepared foods.

Formula

β-carotene	0.01%
Sugar syrup 65%B	15.0%
Citric acid	0.3%
Sodium benzoate	0.1%
Water	84.5%
Total	100%

* 1 kg for each trial

Study

Particular advantages

- Excellent pH, light and heat stability in various applications
- Vivid color effect even at low doses
- Ideal solution for cost optimization
- Broad portfolio to support different product positioning

Storage

Store inside, cool and dry and well closed packaging

Analysis

- Dates of analysis: D0, D7, D17, D60 and D90
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BETA CAROTENE 5% WD

Results

Sensory evaluation

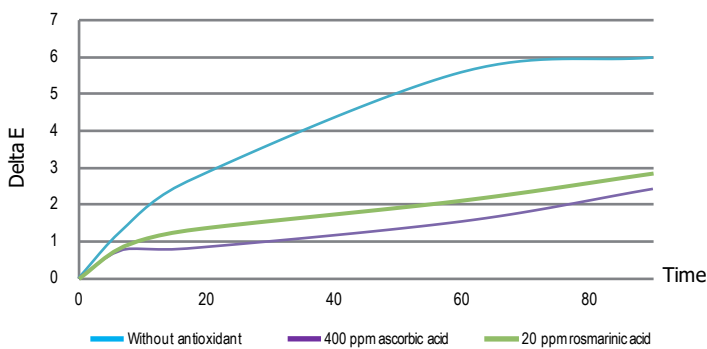
	Colour	Smell	Taste
0.5 g/kg ascorbic acid	✔	✔	✔

Usage

50 to 200 ppm of Cavailes Beta Carotene 5% WD is suitable for your products.

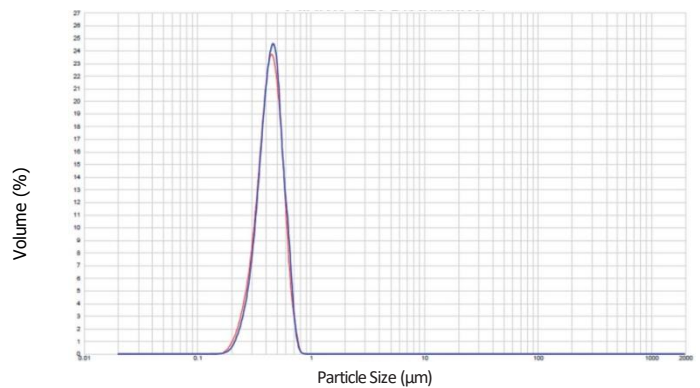
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Particle size distribution

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FLAVOURS FRAGRANCES

Context

When exciting the senses is your business, curiosity is a competitive advantage and we love to explore... Through our willingness to be pioneers, we find and develop ingredients that give our customers the best fragrances from fine beverages to dressings.

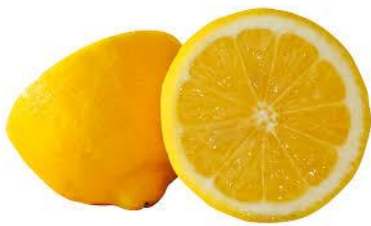
Cavailes solutions are designed for all food and drink applications (dairy products, confectionery, bakery, savoury, and nutrition) and based on consumers' preferences.

Cavailes masters the different flavours, adjusting the formulation to the requirements of customer's processes and market regulations, enhancing consumer's perceptions beyond traditional gustative stimulation with new sense technologies and proprietary solutions.

Formula

Natural citrus flavours	0.01%
Natural color	0.1%
Sugar syrup 65% Bx	15.0%
Citric acid	0.3%
Sodium benzoate	0.1%
Water	84.5%
Total	100%

* 1 kg for each trial



Flavour no 784302



Flavour no 348381



Flavour no 932376



Flavour no 438352



Flavour no 183804



Flavour no 892571

Study

Particular advantages

A broad range of the finest, unique top notes
 Pure and extremely authentic taste
 Ingredients for customized flavour design
 100 % natural

Storage

Store inside, cool, dry and well closed packaging.

REFERENCES

