

New colourful and nutritious formulations at work

By **Lars B. Rasmussen, Allied Biotech Corporation**

There are many offers of Beta-carotene powders and emulsions on the market. They typically vary in terms of potency and choice of ingredients. However, it is only very few which can actually meet the increasingly strong quality requirements related to non-ringing and stability set by high quality food and beverage manufacturers.

Additionally, there is a clear trend in the market towards allergen and animal free products i.e. free from pig, bovine and fish gelatine.

New Beta-carotene powder formulations

Allied Biotech Corporation has developed two new formulations for those applications where powdered products are preferred.

Altratene 10% WSC is a highly versatile Beta-carotene formulation, which is used in a large variety of food products. The most well known segment for this product is probably ACE drinks. Contrary to most other Beta-carotene formulations, which provide a yellow colour shade, this new product is formulated to provide a distinct orange colour.

Besides matching the colour shade standard that has been established on the market, competitive studies have also shown that Altratene 10% WSC exhibits superior pH and light stability (See Fig 1).

The traditional formulation of the Beta-carotene 1% powder has a long history in providing a full spectrum of yellow shades to products like beverages, ice cream, soups, condiments, yogurt etc. To further improve on this existing formulation Allied Biotech is now introducing Altratene 5% WSC, which can replace the 1% powders in all applications. As an added benefit it provides significant cost savings for food and beverage manufacturers. This new product also effectively utilizes the experiences gained from the 1% product by incorporating quality improvements in all significant areas like stability, flowability and solubility.

In line with the market trends, both the new powder formulations are GMO-, animal- and allergen-free.



Figure 2: Typical example of ringing in a beverage

pH Stability (pH = 3) - Altratene 10% WSC

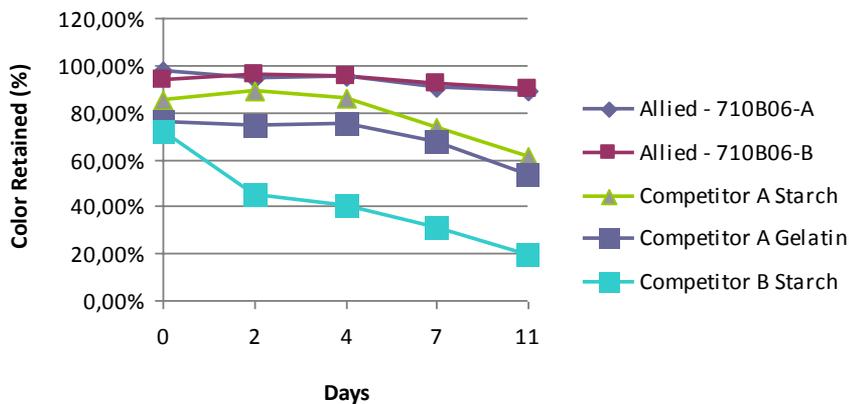


Figure 1: Allied Biotech's new cold water dispersible powder Altratene 10% WSC has superior pH stability.

Company profile

Allied Biotech Corporation is a basic manufacturer of carotenoids. As 'The Carotenoid Company', Allied aims to be the preferred provider of carotenoid solutions to the food, pharma, feed and cosmetic industries. Therefore the key focus is to bring innovative carotenoid formulations to the market, which are unrivalled in terms of quality and stability. At the same time Allied Biotech applies its proprietary formulation technology as a value-add to other nutritional ingredients i.e. Coenzyme Q10 and natural vitamin E.

Allied Biotech Corporation has established a global sales and marketing network, which comprises own offices in Germany, Denmark, US, Brazil, China and Taiwan, and co-operations in several countries with partners specialized in distribution of food additives and ingredients. With this set-up, and due to the high service level and product quality, Allied is now supplying Altratene® carotenoid formulations to important food, feed and supplement companies in more than 50 countries around the world.

New non-ringing Beta-carotene emulsions

For liquid applications Allied Biotech is introducing two revolutionary emulsion formulations Altratene 2% FT-NR and Altratene 3% FT-NR. Manufactured through innovative and proprietary formulation technologies, these products have shown no sign of ring formation in 6 months shelf life studies at a pH of 3. At the same time they have shown remarkable stability towards heat, light and pH exposure. This new line of formulations is an excellent example of how to apply year's of accumulated formulation experience into protecting an inherently instable ingredient like Beta-carotene.

The non-ringing technology is primarily aimed at the beverage industry, who has been struggling for decades with the unpleasant effects of ringing. But other applications like dairy products, soups etc. can also benefit from the properties of the new product line. (Fig 2).

The new Altratene non-ringing product line is easily dispersed in water and incorporated in all kinds of beverages, typically at dosage levels of 3-10 ppm (based on 100% Beta-carotene). In order to secure a homogenous colour distribution it is always recommended to prepare a stock solution of the emulsion and water prior to the addition into the final beverage.

Coenzyme Q10

By applying the accumulated formulation expertise from the carotenoids, it has been possible for Allied Biotech to diversify into other non-carotenoid products.

One of the new products is NanoQ 10% FT, which is an emulsion of Coenzyme Q10. This ingredient is receiving a lot of attention for its role in human energy formation and for its antioxidant properties, which are believed to counter some of the degenerative diseases of the heart, brain and

Altratene 3% FT-NR

(3% Non-Ringing Beta-carotene Emulsion)

Altratene 5% WSC

(5% Beta-carotene Powder)

Altratene 10% WSC

(10% Beta-carotene Powder)

Three new **Beta-carotene** reasons to speak with us today!

The extensive range of Altratene carotenoid formulations are the results of years of accumulated formulation expertise tailored for the food industry.

As a basic manufacturer of carotenoids we maintain full control of the production process to ensure optimal consistency and quality to our valued customers.



Visit www.altratene.com to learn more



Allied Biotech Corporation
The Carotenoid Company

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nervous system.

The formulation is based on solubilised nano grade material, which results in a product with superior bioavailability. The product disperses in water and yields a clear liquid, which makes it perfect for beverage applications without interfering with the turbidity.

Vitamin E

Allied Biotech is also introducing its new Vitamin E 20% EM, which is an emulsion based on mixed tocopherols of natural origin. Vitamin E is an essential nutrient and numerous studies have also praised its properties as a physiological antioxidant.

Vitamin E 20% EM disperses readily in water yielding a stable emulsion. This makes it an excellent candidate for beverages and other food products with a nutritious profile.

Summary

With the introduction of the above mentioned new products, the bar has once again been raised through the application of advanced formulation expertises. At minimal these products can be perceived as improved versions of existing products, which can make life easier and potentially lower the costs. However, to many food and beverage manufacturers they provide an opportunity to expand into new product categories with a nutritious and colourful profile.

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