

# Vitolio

GENUINE RICHNESS FROM NATURE

A natural source of  
beta-carotene

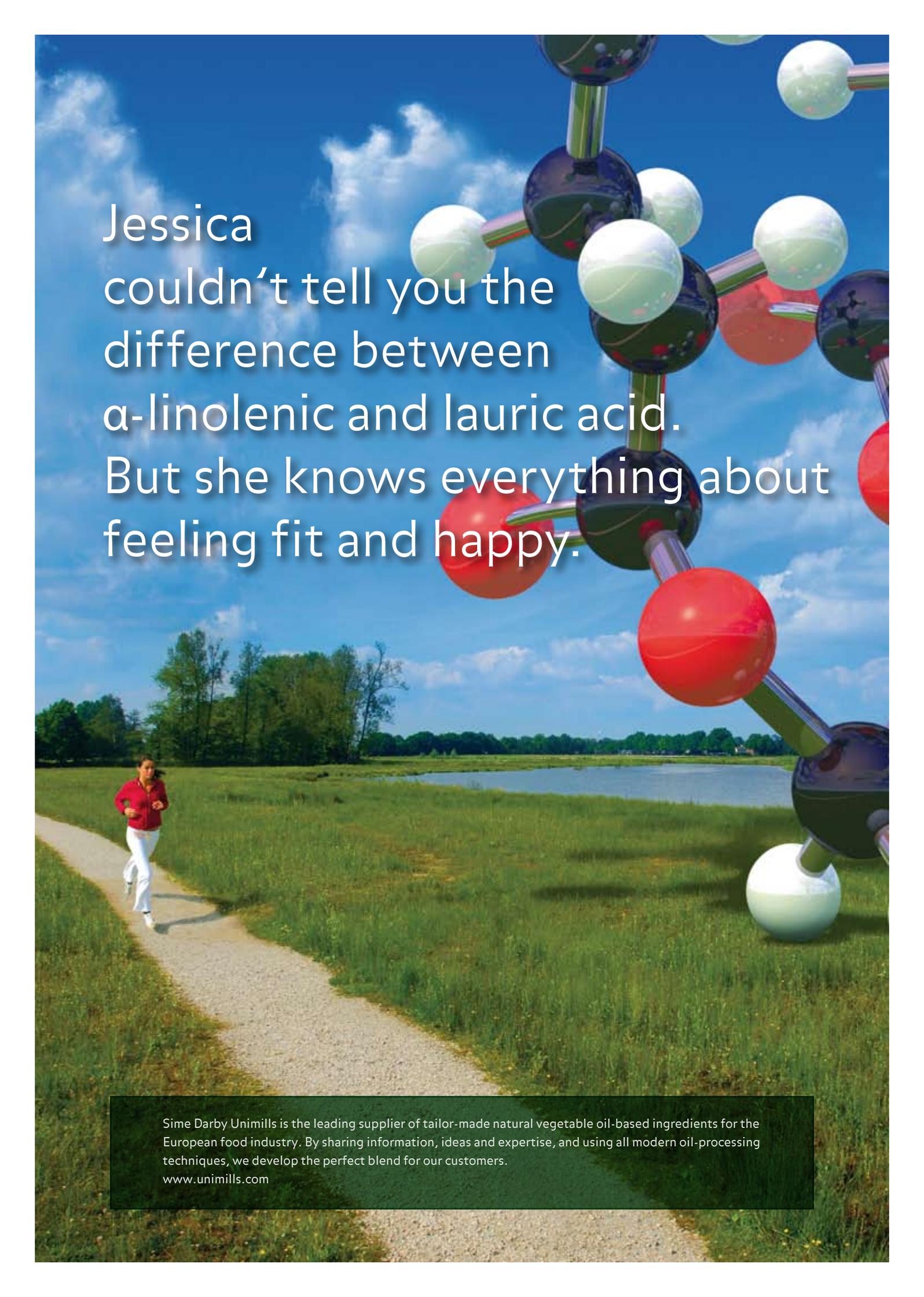


**NATURAL OIL  
INGREDIENTS**



**UNI MILLS**  
*Innovative partner. Vital to food.*

A Sime Darby Plantation Company

A woman in a red jacket and white pants is jogging on a gravel path in a lush green park. In the background, there is a body of water and a line of trees under a blue sky with scattered clouds. A large, semi-transparent molecular model is overlaid on the right side of the image, featuring black, white, and red spheres connected by metallic rods.

Jessica  
couldn't tell you the  
difference between  
 $\alpha$ -linolenic and lauric acid.  
But she knows everything about  
feeling fit and happy.

Sime Darby Unimills is the leading supplier of tailor-made natural vegetable oil-based ingredients for the European food industry. By sharing information, ideas and expertise, and using all modern oil-processing techniques, we develop the perfect blend for our customers.  
[www.unimills.com](http://www.unimills.com)

## Vitolio® Natural oil ingredients

Vitolio® is our brand of unique natural vegetable oil ingredients, giving exceptional added value to food products. The Vitolio® selection enhances food products and meets consumer demand for genuine and natural food ingredients. It comprises a range of natural oils with nutritional values and colouring qualities. One of the unique natural oils in this range is Vitolio® 150, containing natural beta-carotene which is used to colour foods such as margarine, mayonnaise, snacks, cheese, and bakery products. Added to food products, it can add a yellow to red colour. Vitolio® 150 contains natural antioxidants to improve shelf life and adds natural nutritional value to a finished product.



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How do Vitolio® natural oils deliver genuine natural richness? One of the unique natural oils we use is Vitolio® 150, prepared from mildly refined palm oil and containing natural beta-carotene, used to colour foods such as margarine, mayonnaise, snacks, cheese, and bakery products.

Vitolio® 150 is produced by our parent company, Sime Darby in Malaysia. Only the best palm bunches are selected for further treatment and production. Through a special mild refining process, Sime Darby ensures that the oil remains rich in natural carotenoids, such as betacarotene.

Through a stringently supervised Quality Assurance system, the quality of the oils is kept consistent at all times. We are part of an integrated supply chain within Sime Darby, so we have the ability to monitor the oils from the tree to consumers' tables, ensuring they only receive products made with the freshest and highest quality raw materials.





Jessica enjoys her healthy lifestyle with healthy food she trusts.

## Making the right selection

Ingredient selection is key to producing high quality products. The trend is for natural ingredients rather than artificial or synthetic types. This has encouraged many food manufacturers to constantly search for ways to improve the nutritional value, appearance and quality of their products and to replace synthetics with natural colour additives when they colour food.

Vitolio® 150 is very suitable as a food colouring, has additional beneficial natural antioxidant properties, and adds nutritional value, such as pro-vitamin A and vitamin E, to the finished product.

### Nutritional information of Vitolio® 150

Free Fatty Acid	0.10% max
Moisture and Impurities	0.10% max
Iodine Value	60 min
Melting point (deg. C)	19 max
Tocopherols and Tocotrienols	800 ppm min
Carotenes	500 ppm min

### Vitolio® 150 properties

- Natural vegetable liquid oil
- Bright red colour
- Natural beta-carotene
- Pro-vitamin A and vitamin E
- Kosher

### Vitolio® 150 benefits

- Clean labelling
- Enhances food presentation
- Adds nutritional value to foodstuffs
- Improves product shelf life
- Easy dosing and mixing



Adding Vitolio® 150 to a margarine blend and it will give the margarine that golden appearance.

Vitolio® is our brand of unique natural vegetable oil ingredients, allowing customers to give both a natural colour and enhance oxidation stability to food products. The Vitolio® 150 selection enhances food products and meets consumer demand for genuine and natural food ingredients.  
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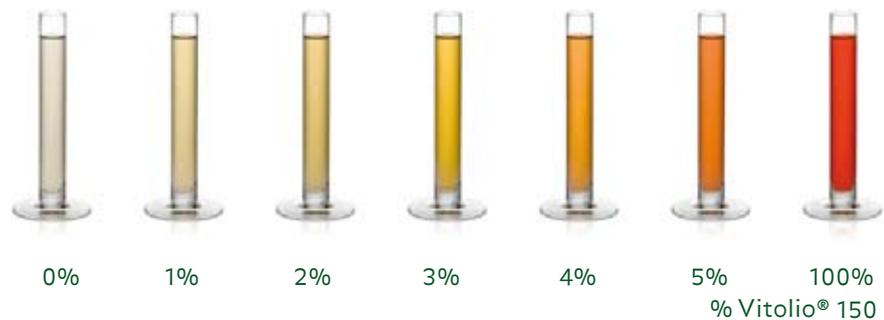
## A natural source of beta carotene to colour food

It's no secret that the visual appeal of food has an effect on our appetite. Food producers rely on these taste associations to enhance their products, and use food colourings in many products such as consumer and industrial margarine, mayonnaise, snacks, cheese, and bakery products.

With growing consumer awareness around health and food safety, there is increasing demand for the use of natural food colourings. Vitolio® 150 is rich in natural carotenoids, one of the most important groups of natural pigments used as food colouring.

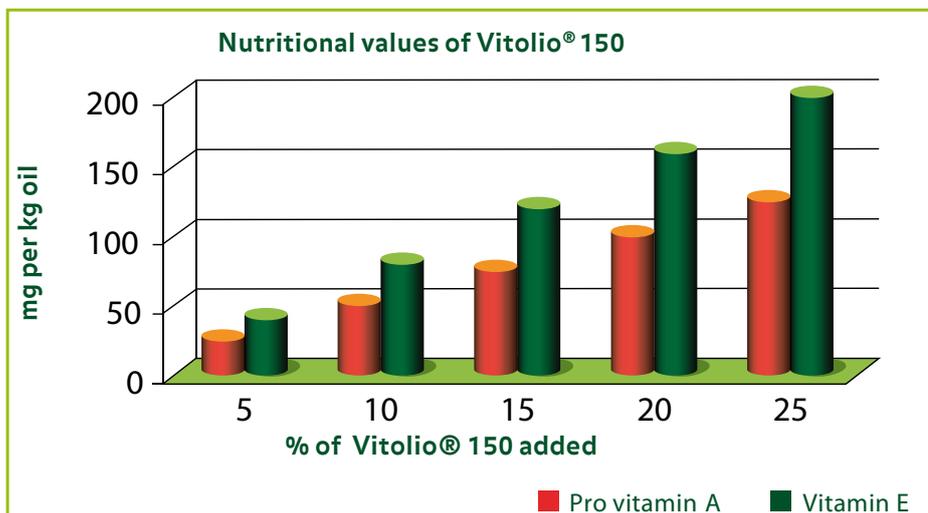
When Vitolio® 150 is added to food products, it produces a yellow to red colour. Your product will have a tasty and fresh appearance. Vitolio® 150 is easy to use and mixes well with all oil-based products. Unlike many other food colours, there is no need for pre-blending before mixing it with the main product during manufacture.

### Visual impact of Vitolio® 150 in a refined vegetable oil blend



## A natural source of nutritional values

Vitolio® 150 adds natural nutritional value to the finished product. Sime Darby uses a unique mild refining process to keep all essential nutrients in the oil, and Vitolio® 150 is therefore a rich natural source of tocotrienols. Tocotrienols are members of the vitamin E family, an essential nutrient for the human body. Carotenes such as beta- and alpha-carotene are a source of pro-vitamin A, which is converted into vitamin A in the human body in the presence of fats.

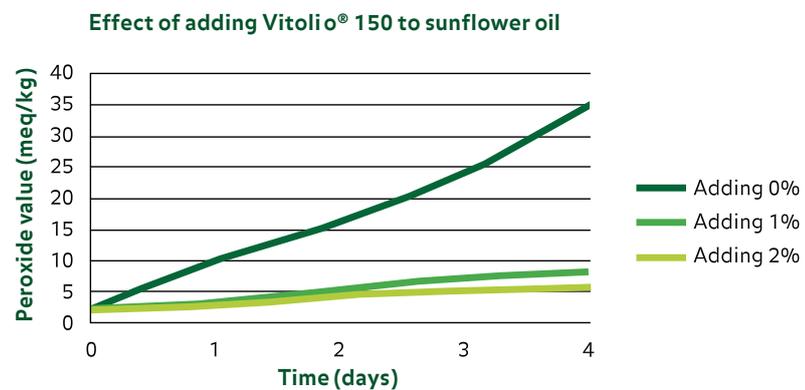




## A natural source of antioxidant

Tocotrienols are known for their natural antioxidant properties in food products. These natural antioxidants slow down the degradation of food products. Adding Vitolio® 150 to your food product will improve its shelf life.

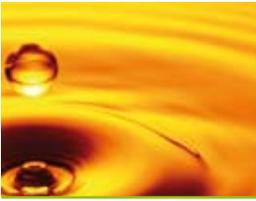
Vitolio® 150 is also excellent for frying. Deep-fat frying produces desirable or undesirable flavour compounds and changes the flavor stability and quality of the oil. Adding Vitolio® 150 to the oil increases the stability of the oil against oxidation, as can be seen by following the peroxide number in time.



Effect of Vitolio®150 addition on the peroxide value as a measure for the amount of oxidation. Sunflower oil stored in the dark at 60°C.

### Clean labelling

E-numbers used on food labels refer to additives such as colours and preservatives. Today's consumers are highly concerned about these additives, and pay close attention to the list of ingredients on food packages. This is encouraging many food manufacturers to replace synthetics with natural colour additives. Vitolio® 150 is a natural source of betacarotene for colouring purposes and does not need to be listed on food packaging in Europe.



## Our approach

Our reputation for high-quality natural oil ingredients is based on our in-depth knowledge and experience of processing oils and fats gained over almost 100 years. We believe that the best products are created through an approach of transparency and partnership. Transparency is a key element of success with the aim to innovate and manufacture ingredients effectively and responsibly.

At our site in Zwijndrecht, The Netherlands, we have all modern oil-processing techniques such as interesterification, double-fractionation and enzymatic re-arrangement. We are a leading producer of lecithin products modified by enzymatic hydrolysis or alcohol fractionation. We can add lecithin, flavours or natural colourants to the final oil blend. Sharing information, ideas and expertise, allows us to develop the perfect blend or recipe for our customers with shorter lead times and higher success rates.



Our responsibility is to ensure that each step from palm seedling to your product is sustainable.

## Strategic thrusts

First and foremost, consumers look for products they enjoy. However, today's consumers are increasingly aware of health and environmental issues. Their enjoyment of a product increasingly depends on the knowledge that the product has been produced in an ethical, environmentally friendly and sustainable way. They want to eat good food and feel good about the choices they make. The Vitolio® range delivers on this desire.

Most of our tropical raw materials come from sustainable sources: the estates of our Sime Darby plantations in Malaysia and Indonesia. Sime Darby, our parent company, is a founding member of the Roundtable on Sustainable Palm Oil (RSPO). We see it as our responsibility to source our raw materials from sustainable sources and to help all our customers to switch over to sustainable palm oil based products. As a company we believe that we can only have a successful future if we make sure it's a sustainable one.

We adhere to strict quality assurance standards, from raw material sources to final products. We have adopted various food standards such as HACCP, ISO, BRC and IFS.

Our strategic thrusts of Innovation and Responsibility are embedded in Vitolio® oil formulations. By applying these thrusts to every aspect of our work, we are committed to meeting your needs and the needs of your customers, the consumers.



*Developing  
Sustainable  
Futures*

## Contact

If you would like to learn more about how you could use our expertise to successfully co-develop your products, please contact our sales department or product development experts:

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