

# SolarCaro<sup>TM</sup> Natural Beta-Carotene

Vita-Solar Biotechnology manufactures and markets a line of Beta-carotinoids products under the brand name SolarCaro<sup>TM</sup>. Our products are derived from all-natural sources and are formulated for use in food, beverages, and dietary supplements.

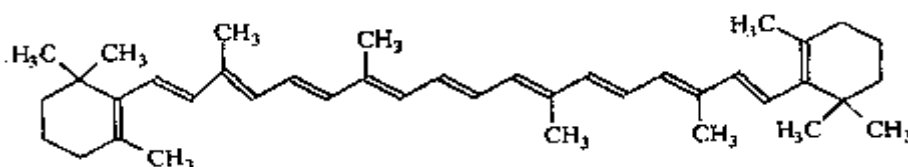
## Product Description:

Natural Beta-carotene, derived from the Latin name for carrot, belongs to a family of natural chemicals known as carotenes or carotenoids. Widely found in plants, carotenes give yellow and orange fruits and vegetables their rich colors. Beta-carotene is also used as a coloring agent for foods such as margarine.

Beta-carotene is converted to vitamin A (retinol) by the body. While excessive amounts of vitamin A in supplement form can be toxic, the body will only convert as much vitamin A from beta-carotene as it needs. This feature makes beta-carotene a safe source of vitamin A.

Like all other carotenoids, beta-carotene is an antioxidant. Consuming foods rich in beta-carotene appears to protect the body from damaging molecules called free radicals. Free radicals cause damage to cells through a process known as oxidation, and over time, such damage can lead to a variety of chronic illnesses. Some studies suggest that dietary intake of beta-carotene may reduce the risk of two types of chronic illness-heart disease and cancer. Supplementation, however, is more controversial; see discussion in the section that follows.

## Chemical Structure



Chemical Formula: C<sub>40</sub>H<sub>56</sub> Molecular Weight: 536.85

CAS Number: 7235-40-7

## Advantages:

- GMO-free and based on non-allergenic ingredients (EC/13/2000)
- High Biological Activity
- Kosher & Halal Certified

## Different SolarCaro™ product forms

Product Code and Name	Application	Benefits
<b>Beta-Carotene Pure</b>	Not used in food directly	
<b>Beta-Carotene Powder&amp; Beadlet CWD</b>	Suitable for coloring food, fast foods, drink, Jelly bears, confectionery products and dairy products	Dispersible in water
<b>Beta-Carotene Powder&amp; Beadlet DC</b>	Used to make tablets or pills.	Good flow characteristics Good compressibility
<b>Beta-Carotene Oil Suspension</b>	A yellowish liquid used in oil applications, such as edible oil, soft capsules and soft drink	Dispersible in oil

## What is Beta-Carotene?

Beta-carotene is one of a group of natural chemicals known as carotenes or carotenoids. Carotenes give color to fruits and vegetables, along with another group of natural chemicals called flavonoids.

Beta carotene is converted in the body to vitamin A. It is an antioxidant, like vitamin E and C.

## Why Do People Use SolarCaro™ Beta-Carotene?

- ◆ Prevention against cancer and heart disease
- ◆ To slow the progression of cataracts
- ◆ To prevent macular degeneration
- ◆ To boost immunity
- ◆ To protect the skin against sunburn
- ◆ Asthma
- ◆ Depression
- ◆ Infertility
- ◆ Parkinson's disease
- ◆ Psoriasis
- ◆ Arthritis
- ◆ High blood pressure
- ◆ Cervical dysplasia
- ◆ Intermittent claudication

## Are SolarCaro™ Beta-Carotene safe?

Beta carotene is relatively safe. There is some concern that high doses of beta-carotene can cause a slight increase in the risk of heart disease and cancer, especially in people who smoke cigarettes and who consume excessive alcohol. Other side effects include diarrhea and a yellowish tinge to the skin, both of which subside when the intake of beta-carotene is lowered