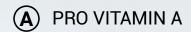


# BETA CARO-GEN® & ULTRA CARO-GEN®















Vegan & Vegetarian



100% Natural



Allergen Free



Dispersible in Cold Water



Stabilized in Oil, Powder & Fmulsion form







NATURAL MIXED CAROTENOIDS

The body generates free radicals or reactive oxygen species (ROS) as the inevitable by-products of turning food into energy. They are also formed after exercising or exposure to external factors such as pollution and sunlight, or internal factors such as inflammation. The body can cope with some free radicals, however, an overload of free radicals over time may become irreversible and may cause oxidative stress.

Carotenoids, such as Alpha Carotene & Beta Carotene, are suggested to play a protective role in a number of ROS-mediated disorders, such as cardiovascular and neurological diseases, as well as photosensitive or eyerelated disorders. Their structure is identical to the retinol molecule and present Vitamin A activity, of which Beta Carotene possesses the highest bioactivity.

Beta Caro-gen® is Natural Beta Carotene produced by the fermentation of the naturally occurring fungus, Blakeslea trispora. Ultra Caro-gen® is a Natural Mixed Carotenoid complex containing Alpha Carotene, Beta Carotene & Xanthophylls.

These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease.









Choose Good Health™



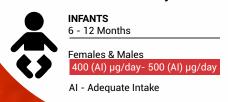
#### NATURAL BETA CAROTENE NATURAL MIXED CAROTENOIDS

Natural Beta Carotene from *Blakeslea trispora* has gathered a lot of attention due to its ability to grow well in standard fermentation of liquid media. It predominantly consists of trans-isomers (>93%) with variable amounts of cis-isomers, and is processed in a closed reactor to produce pure crystals. These crystals are easier to handle & formulate than other sources, and provide the necessary uniformity in the desired delivery system, such as oil suspensions, powders & beadlets and emulsions.

Natural Beta Carotene has been found to be more bioavailable and stable than its cheaper synthetic alternative. Natural Beta Carotene from *Blakeslea trispora* contains a higher amount of trans-isomers than other sources, resulting in stronger pro-vitamin A activity. Both Beta Caro-gen® & Ultra Caro-gen® are available in several formats, making them suitable for various applications such as capsules, tablets, gummies, stick packs, food premixes & beverages.



### Recommended Dietary Allowance (RDA) for Vitamin A<sup>1</sup>

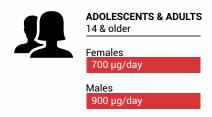




CHILDREN
Females & Males

1-3 Years 4-8 Years
300 µg/day 400 µg/day

9-13 Years
600 µg/day



## CONVERSION OF NATURAL BETA CAROTENE TO VITAMIN A (IU & RAE)

### IN TERMS OF IU

1 IU Retinol = 0.3 μg Retinol

1 IU Beta Carotene = 0.6 µg Beta Carotene

1 IU Retinol = 3 IU Beta Carotene

1 IU Vitamin A = 3 IU Beta Carotene = 1.8 μg of Beta Carotene

Equivalence of Natural Beta Carotene 20% Powder in terms of Vitamin A (IU):

1 mg of Natural Beta Carotene 20% Powder = 200 µg of Natural Beta Carotene = 111.1 IU of Vitamin A

Equivalent of Natural Beta Carotene 30% Oil in terms of Vitamin A (IU):

1 mg of Natural Beta Carotene 30% Oil = 300  $\mu$ g of Natural Beta Carotene = 166.65 IU of Vitamin A

### IN TERMS OF RAE

1 IU Retinol = 0.3 µg RAE

1 IU Beta Carotene from supplements = 0.3 μg RAE

1 IU Beta Carotene = 0.60 µg Beta Carotene

 $= 0.30 \mu g RAE$ 

Equivalence of Natural Beta Carotene 20% Powder in terms of Vitamin A (mcg RAE):

1 mg of Natural Beta Carotene 20% Powder = 200 μg of Natural Beta Carotene = 100 μg RAE

Equivalence of Natural Beta Carotene 30% Oil in terms of Vitamin A (mcg RAE):

1 mg of Natural Beta Carotene 30% Oil = 300 μg of Natural Beta Carotene = 150 μg RAE