AOM

Sun E

SUNFLOWER VITAMIN E:

-FORTIFICATION WITH A CLEAN LABEL -

Vitamin E is one of the most sought-after ingredients in today's nutrition market due to its antioxidant effectiveness. It consists of d-alpha tocopherol, one of four forms of tocopherol produced in nature, and the most effective in protecting the human body from the damaging effects of free radicals and the chronic diseases linked to them, according to numerous clinical studies. As the major fat soluble antioxidant in the human body, it intervenes actively in several protective functions. It cannot be synthesized by the body, and so must be included in the diet via food or in the form of supplements.

Compared to other vegetable oil sources, Sunflowers are rich in d-alpha tocopherol and one of the prime sources of all-natural vitamin E. Unlike other products in the market, Sun E requires no chemical alteration, and the sunflower source ensures Non-GMO status and requires no allergen labelling. It is a completely natural, non-methylated form of Vitamin E.

Natural Vitamin E has become the benchmark for use in leading consumer products: clinical studies have determined that due to its chemical composition, natural Vitamin E is twice as potent as synthetic forms. Growth in its presence is also in response to consumer demand for healthier and more natural products.

Sun E is one of AOM's most distinguished products, produced exclusively from sunflower oil. We believe this is the best way to deliver all the benefits of natural vitamin E, and together with our sunflower-sourced Mixed Tocopherols they guarantee non-GMO origin.

SUN E HIGHLIGHTS

> All-natural d-alpha tocopherol
> Twice as potent as synthetic form
> Purified via physical separation only: non-methylated
> Non-GMO by default due to sunflower source
> No allergen labeling required
> Kosher and Halal certified

The only all-natural source of Vitamin E

Sunflower naturally has a d-alpha tocopherol concentration of over 90% of the total tocopherols, making it the perfect source for high-concentration, all-natural Vitamin E. Unlike other forms of Vitamin E that claim "naturally sourced", Sun E can make a natural claim as it's produced only by physical process.

Natural Vitamin E, or d-alpha tocopherol, is one of four naturally occurring forms of tocopherol. While found in numerous oilseeds, each source exhibits a unique mix of tocopherols.

For commercial purposes, tocopherols are typically sourced from soybean oil. However, d-alpha tocopherol accounts for only 10% of the total tocopherol content in the seed. In order to reach the concentration levels required to qualify as Vitamin E, many products in the market are produced by artificially converting the non-alpha tocopherols (beta, gamma and delta) into alpha-tocopherol. This is done through a chemical process called methylation.

TYPICAL APPLICATIONS

- Nutritional Supplements
- Fortified foods and beverages
- Pet food and feed
- Personal care product

Guaranteed Non-GMO

Sunflower remains a GMO-free crop worldwide, guaranteeing that any product derived from it will not have undergone genetic modification.

Genetically Modified Organisms are crops that have been adapted to improve yields, resistance to pests, and land use. They proliferated dramatically in recent decades in major crops such as maize, cotton and soybean, becoming one of the central themes in global food security.

In recent times, consumers in many developed economies are becoming increasingly opposed to the use of GMO produce in their food, concerned that there may be yet unknown effects on human health. They are demanding their suppliers to limit their ingredients to non-GMO sources.

Allergen-Free Labeling

Products containing Sunflower and its derivatives are more suitable for avoiding allergic reaction, and typically do not require specific allergen labeling, making it the preferred source for several vital ingredients and additives like Vitamin E targeting the broad consumer space.

Food allergy is becoming increasingly diagnosed among urban populations. They occur when the immune system mistakenly identifies food proteins as germs, producing high amounts of antibodies to attack them. The chemicals released in the process trigger the symptoms of an allergic reaction.

The vast majority of food allergies are linked to a small handful of foods: nuts. milk, eggs, wheat, fish, shellfish, and soy. Sunflower is broadly considered safe from the allergy standpoint, showing only rare cases of sensitivity.

Improved bioactivity

α-Tocopherol, the most powerful form of Tocopherols, can present eight different Stereoisomers, depending on the spatial location of the chiral centers. Natural Vitamin E contains only the RRR-form, while synthetic Vitamin E consists of all eight possible stereoisomers.

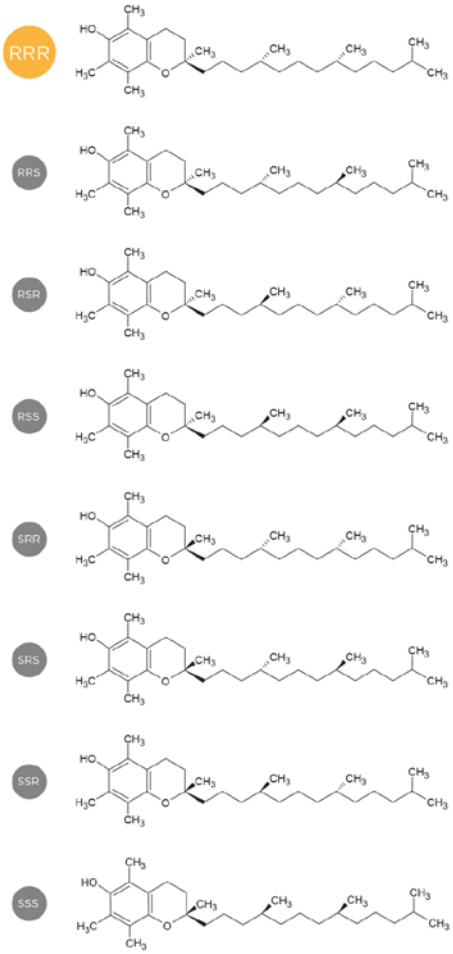
These forms are not bioequivalent: the human body can only process those forms than contain the 2R combination, the rest (2S forms) are not biological active. As a result, RRR-a Tocopherol, or Natural Vitamin E, is most active by a substantial margin.

SUNFLOWER PRODUCTS FROM AOM

- Sun E Range
- Sun E 1000
- Sun E 900
- Sun E 500 PS
- Sun E 450 SD

Different Stereoisomers of α-Tocopherol

NATURAL — Most active



SYNTHETIC

4/8 Less active
3/8 No activity
1/8 Most activity

Higher bioavailability

Natural Vitamin E also exhibits much higher bioavailability than synthetic Vitamin E. Studies have demonstrated that plasma appearance of Tocopherol-which is evidence that it is entering the blood stream-occurs only after passage through the liver, and this is done by the hepatic α -tocopherol transfer protein (α -TTP). α -TTP not only specifically sorts out the α form of all Tocopherols, but also has a reference for RRR-epimer.

Recently bio-efficiency of Sun E has been proved to be at least twice as potent as synthetic Vitamin E. Research also shows greater accumulation of α -tocopherol in all tissues when RRR- form is supplied, and this provides greater health protection.

Thus, Sun E is the preferred source of this important nutrient

About AOM

Advanced Organic Materials is a leading producer of valuable nutritional ingredients and antioxidants derived from natural sources, offering tocopherols from a full range of sources, custom blends for application-specific tocopherol profiles, as well as our range of plant sterols used across multiple industries worldwide.

For more information about our products and solutions, please contact us:

- Pilar, Argentina +54 2304 496 456 info@aom.company
- Toledo, Spain +34 925 107 361 info.eu@aom.company
- Valencia, Spain +34 961 042 330 valencia@aom.company

www.aom.company