

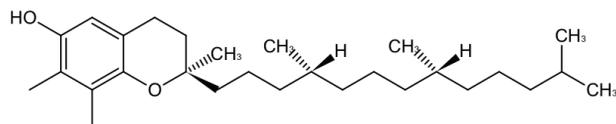
## TC-90 High Gamma Mixed Tocopherols

Product Code: 300089



### Natural Mixed Tocopherols:

- In the Vitamin E family of compounds.
- A full spectrum Natural Vitamin E, consisting of all 4 major natural Vitamin E homologues: d-alpha-, d-beta-, d-delta-, and d-gamma-tocopherol.
- Naturally found in vegetable oils, nuts, fish, and leafy greens.
- Alpha-tocopherols contained in mixed tocopherols are RRR-d- $\alpha$ -tocopherol, widely considered to be the most effective form of Vitamin E.
- Not a synthetically produced vitamin E but a natural extract from oilseeds.
- North American domestic raw material source and production.



d- $\gamma$ -tocopherol

### High-Gamma Mixed Tocopherols:

- Great choice to make a Gamma-Tocopherol label claim for a dietary supplement or functional food.
- High potency d- $\gamma$ -tocopherol formula provides optimal dose of tocopherols without taking up too much space in a formula.
- Good choice for an all-purpose Natural Mixed Tocopherol concentrate.
- Consumption of Gamma Tocopherols have been linked to:
  - Reduction of cancer risk.
  - Reduction of oxidative stress in the brain associated with learning disabilities.
  - Positive effects on blood serum LDL cholesterol.
  - A heart-healthy diet.

### General Usage:

- Prevents oxidation & rancidity in oily or fat-containing foods and supplements.
- Protects sensitive flavor components to preserve taste & freshness. Used in pet treats, cosmetics, animal feeds, certified USDA organic products, essential oils, edible oils, and many oily and fat-containing foods.
- 100% natural solution for protecting against oxidation in foods.
- No regulatory usage limits in foods, unlike synthetic antioxidants such as BHA, BHT, or TBHQ.
- Depending on matrix, usage generally targets between 500-1500ppm of tocopherols.
- GRAS ingredients - Natural Mixed Tocopherols have long been a part of the human diet.
- Allergen-Free ingredients derived from highly refined oils.
- USDA Organic Compliant: Allowed as an ingredient up to 5% in or on processed product labeled as "organic" or "made with organic" under section §205.605 of the USDA National Organic Program.

### About Our Tocopherols:

90% High Gamma Tocopherols produced by Organic Technologies are refined from edible vegetable oils, which are domestically sourced from North American oilseed crushing plants. Our high-gamma tocopherol products are concentrated and separated using chromatography. Our products are made in the heart of the Midwest at our NSF certified for cGMP, Kosher-certified production facility in Coshocton, OH.

**Description:** Clear, yellow to brownish-red viscous oil derived from edible vegetable oils (e.g. soybean, canola, sunflower, corn)

**Uses:** Natural food-grade antioxidant for use in nutritional supplements, edible oils, foods, cosmetics, and animal feeds.

**Storage Conditions:** Store in tightly sealed opaque or translucent containers at ambient temperature. Avoid exposure to oxygen and light. Product can darken when exposed to heat, air and light. Avoid exposure to transition metals, alkali, or oxidizing agents.



## TC-90 High Gamma Mixed Tocopherols

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### Typical Physical & Chemical Properties:

Attribute	Typical Value
Total Tocopherols	900 mg/g min.
Alpha Tocopherol	0-200 mg/g typical
Beta Tocopherol	0-100 mg/g typical
Delta Tocopherol	0-300 mg/g typical
Gamma Tocopherol	700 mg/g
Appearance	Reddish Viscous Oily Liquid
Identification Test (Tocopherol NF Method B)	Pass
Taste & Odor	Bland odor and taste (report as pass/fail)
Acidity	1 ml/g
Specific rotation	+20° min.
Heavy Metals	10 ppm max
Lead	2 ppm max
Arsenic	1 ppm max
Total Microbial Count	<10/g
E. Coli	Neg/10g
Salmonella	Neg/10g
Staphylococci	Neg/10g
Yeast	<10/g
Mold	<10/g
Ingredients:	Natural Mixed Tocopherols (100%)

### Package Sizes Available:

TC-90 300089	180 kg Openhead Lined Steel Drum
TC-90 300089	10 kg HDPE Pail
TC-90 300089	1 kg Aluminum Bottle
TC-90 300089	30 g Sample