



TECHNICAL DATA SHEET

1. Product Information

Item	Specification
Product Name	Mixed Tocopherols Concentrate
Product Code	M90%
Specification	90%
Test Standard	FCC, USP-NF 2026
Appearance	Brown red to light yellow clear oily liquid
Form	Oily liquid

2. Product Description

Mixed Tocopherols Concentrate 90% is a concentrated mixture of tocopherols in an oily liquid form. It is characterized by a high total tocopherol content and a high proportion of d-(β + γ + δ)-tocopherols.

The product conforms to the requirements of **FCC and USP-NF 2026**.

3. Technical Specifications

Test Item	Specification
Appearance	Brown red to light yellow clear oily liquid. It may show a slight presence of waxlike constituents in microcrystalline form.
Identification – Color Reaction	Positive
Identification – Retention Time	The principal peak in the chromatogram obtained with the test solution is similar in retention time and size to the principal peak in the chromatogram obtained with reference solution.
Acidity	≤ 1.0 ml
Specific Rotation $[\alpha]_{D^{25}}$	$\geq +20^{\circ}$
Assay	$\geq 90.0\%$
d-(β + γ + δ)-tocopherols in total tocopherols	$\geq 80.0\%$
Lead	≤ 1 mg/kg

Test Item	Specification
Arsenic	$\leq 1 \text{ mg/kg}$
Cadmium	$\leq 1 \text{ mg/kg}$
Mercury	$\leq 0.1 \text{ mg/kg}$
Solvent Residue – Ethanol	$\leq 5000 \text{ ppm}$
Benzo(a)Pyrene	$\leq 2 \text{ ppb}$
Aerobic Plate Count	$\leq 1000 \text{ cfu/g}$
Yeast and Molds	$\leq 100 \text{ cfu/g}$
Escherichia Coli	Negative/g
Salmonella	Negative/25g
Staphylococcus Aureus	Negative/25g

4. Typical Applications

Mixed Tocopherols Concentrate 90% can be used as a source of mixed tocopherols in applications such as:

- Food and nutritional products
- Dietary supplements
- Nutraceutical formulations
- Food and feed formulations
- Antioxidant applications
- Other applications requiring concentrated mixed tocopherols

5. Quality & Compliance

The product is manufactured and tested according to the applicable requirements of:

- FCC
- USP-NF 2026

The product specification includes identification, assay, physical characteristics, heavy metals, solvent residue, Benzo(a)Pyrene and microbiological requirements.

6. Storage

Store in a **cool, dry place**, protected from direct sunlight and excessive heat. Keep the container tightly closed when not in use.

7. Shelf Life

24 months from the manufacturing date when stored under recommended conditions.

8. Packaging

Standard packaging can be provided according to customer requirements.