Vitamin E TPGS

NEW AT UETIKON

TPGS
Vitamin E Polyethylene Glycol Succinate is a mixture formed by the esterification of d-\(\alpha\)-tocopheryl acid succinate and polyethylene glycol. The ester mixture consists primarily of mono-esterified polyethylene glycol and a small amount of di-esterified polyethylene glycol. It contains NLT ~ 25% of d-\(\alpha\)-tocopherol.

NF Official Monography

**VITAMIN E TPGS**

Vitamin E TPGS is a surfactant which can be used as emulsifier, drug solubilizer, absorption enhancer, and as a vehicle for lipid-based drug delivery formulations.

- **Improving Drug Bioavailability**
  - Surfactant properties enhance solubilization of poorly water soluble drugs
  - Stabilization of amorphous drug
  - Enhances drug permeability by P-glycoprotein efflux inhibition.
- **Emulsion vehicle**
- **Functional Ingredient in self-emulsifying formulations**
- **Thermal binder** in melt granulation/extrusion processing
- **Reducing drug sensitivity on skin or tissues**
- **Carrier for wound care and treatment**
- **Water soluble source of Vitamin E**

**APPLICATION FIELD OF VITAMIN E TPGS**

Due to its properties, Vitamin E TPGS is used for various applications:

- Pharmaceutical
- Nutraceuticals
- Food & Beverage
- Cosmetic & Personal Care
- Animal Nutrition

**INDUSTRIAL FORMULATION:**

- Oral
- Parenteral
- Topical

**SYNONYM**

- TPGS
- Tocophersolan
- Tocofersolan

**D-\(\alpha\)-TOCOPHERYL POLYETHYLENE GLYCOL 1000 SUCCINATE**

**VITAMIN E TPGS**

- Chemical Abstract Index name: \(\alpha\)-(4-[[2R]-3,4-dihydro-2,5,7,8-tetramethyl-2-[4R,8R]-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl][oxy]1,4-dioxobuty]-\(\omega\)-hydroxy-poly(oxy-1,2-ethanediyl)
- CAS: 9002-96-4
- Empirical Formula: \(\text{C}_{33}\text{H}_{54}\text{O}_{5}\)
- Molecular Weight: ~1513
- Physical form: waxy solid with low melting point:
- 36 - 42 °C
- Color: White to light tan
- Vitamin E content (d-\(\alpha\)-tocopherol) 25% minimum weight basis; standard range 25-30%
MORE ABOUT VITAMIN E TPGS

Applications & Properties

On Safety:

Owned by Novacap Group, Uetikon is a well established European chemical and pharmaceutical producer. Uetikon has developed an unique expertise to manufacture generic and innovative Active Pharmaceutical Ingredients (APIs) and complex custom fine chemicals for the pharmaceutical industry. We are globally active, serving hundreds of customers with a solid track record of manufacturing in state-of-the-art production facilities under cGMP including a 25 year history of successful FDA inspections.