VITAMIN E TPGS

VITAMIN E TPGS comes from the esterification of Vitamin E succinate with PEG 1000. It’s a multirole excipient for drug delivery formulations.

**CHEMICAL STRUCTURE**

**Chemical Name:** D-α tocopheryl polyethylene glycol 1000 succinate  
**Synonym/acronym:** TPGS, Tocophersolan, Tocofersolan

**PROPERTIES OF VITAMIN E TPGS**

**Oral delivery Applications**
- Improves Drug Bioavailability
- Surfactant, enhances solubilization of poorly water soluble drug
- Enhances solubilization of poorly permeable drugs that are water soluble
- Enhances drug permeability by P-glycoprotein efflux inhibition
- Vitamin E bioavailability enhancer
- Controlled delivery application

**Non oral Applications**
- Nasal/pulmonary application
- Ophthalmic
- Parenteral
- Dermal (carrier for wound care treatment, reducing drug sensitivity on skin or tissues)

*Functional ingredient in self-emulsifying formulations*

*Thermal binder in granulation/extrusion processing*

**OTHER REGULATORY STATEMENTS AVAILABLE**

- GMO, BSE, TSE and other certificates available upon request
- BSE / TSE
- Others certificates available upon request
  (Residual solvents, elemental impurities ...)*
**PHYSICAL AND CHEMICAL PROPERTIES**

**Chemical Abstract Index Name**  
Poly(oxy-1,2-ethanediyl), α-[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-dioxobutyl]-ω-hydroxy-

**Empirical Formula:** $C_{33}O_5H_{54}(CH_2CH_2O)n$

**CAS:** 9002-96-4

**Molecular weight:** ~1.5 kDa

**Melting Point:** 36-42 °C

**Physical form:** waxy solid with low melting point

**Color:** white to light tan

**Vitamin E content (D-α-tocopherol):** 25 % minimum weight basis; standard range 25-30 %

**SEQENS UNIQUE OFFER**

Active DMFs i.e. US type IV (Excipients)  
Produced in Europe (Lahr, Germany)  
GMP compliant (EU, USFDA)  
NF compliant (USP)

**MORE ABOUT VITAMIN E TPGS**

**Application & Properties References**


**Safety Studies References**
