

Product Information

dermofeel® TocoBalance**The Product: dermofeel® TocoBalance**

This natural antioxidant with multifunctional properties is fully based on vegetable sources and suitable for certified natural cosmetics. It is sourced from non-GMO rapeseed oil and shows a balanced content of mixed tocopherols. **dermofeel® TocoBalance** effectively protects valuable ingredients in cosmetics formulations from oxidation. Additionally, thanks to the balanced content of tocopherols with different activity, it provides the added benefit of antioxidative protection for the skin.

CHARACTERISTICS

- INCI: Tocopherol; Helianthus Annuus (Sunflower) Seed Oil
- Appearance: Clear brownish viscous liquid, mild odor
- 100% naturally derived; COSMOS approved and compliant with other standards for natural cosmetic; please contact us for further information

Cosmetic functions

- Dual function:
 - Protecting lipophilic ingredients from rancidity due to oxidation processes
 - Antioxidative skin protection (Vitamin E) (¹ see Literature last page)
- Non-Allergen
- Total tocopherol content: ~ 70 % (diluted in ~ 30% organic sunflower oil)
- Can be added to the oil phase before homogenization
- In order to elongate the lifecycle of this antioxidant ingredient, combine with chelating agents, e.g. **dermofeel® PA-3**
- Ideal in emulsions and oil based products

DOSAGE

Product Concept	Dosage
Emulsions and oil based products	0.05 – 1.5 %

How to work with dermofeel® TocoBalance

MANUFACTURING PROCEDURE (LABORATORY SCALE)

For emulsions:

- **dermofeel® TocoBalance** can be added to the oil phase at any step of the process
- Especially when sensitive ingredients are present, **dermofeel® TocoBalance** should be added before heating the oil phase, thus a protection during process is given
- Can be used in hot or cold process

FORMULATION ADVICE

Solubility	Soluble in oil
	Sparingly soluble in ethanol
	Miscible with organic solvents

APPLICATION IDEAS

Perfectly suitable for emulsions and oil based products with the benefit of skin protection (e.g. sun care formulations)

For more formulation ideas visit us at:
<https://www.dr-straetmans.de/en/products>

Proof of Performance

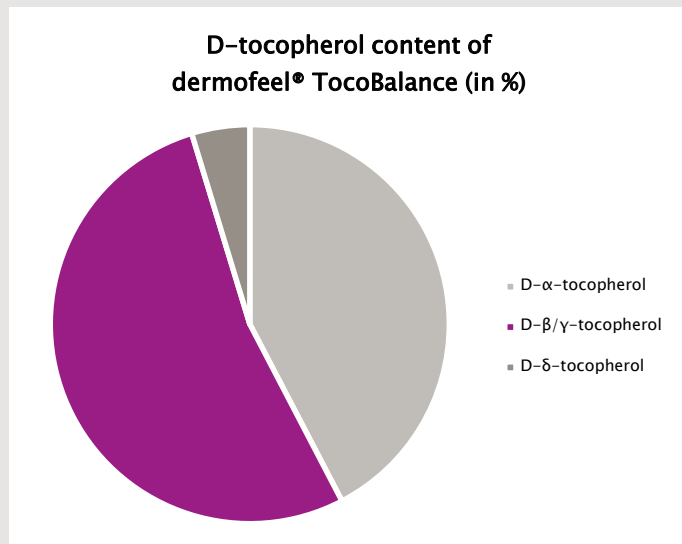
ANTIOXIDANT ACTIVITY IN THE PHYSIOLOGICAL AND FORMULATION ENVIRONMENT

The term tocopherol describes a group of substances that differ slightly regarding the configuration of the molecule. Depending on the type of tocopherol, the activity is different.

Type of Tocopherol	Biological activity (IU/mg) in the physiological environment (with D-α-tocopherol as 1)	Antioxidant activity (with D-α-tocopherol as 1) in a O/W-emulsion
D-α-tocopherol	1.0	1.0
D-β-tocopherol	0.5	1.3
D-γ-tocopherol	0.1	2.0
D-δ-tocopherol	0.07	4.0

In the physiological environment of the skin **D-α-tocopherol** has the highest antioxidant efficacy. At the interface of an O/W- emulsion, **D-γ and δ-tocopherol** have the highest antioxidant efficacy.

THE D-TOCOPHEROL PROFILE OF DERMOFEEL® TOCOBALANCE



Based on 70% total tocopherol concentration.

Rapeseed oil naturally contains a balanced content of D-tocopherols. Therefore, the multifunctional antioxidant **dermofeel® TocoBalance** offers product protection as well as protection for skin at the same time.

Trade Information

International Approval*	EU, USA, Canada, Australia, China, Japan, South Korea
Packaging	18 kg
Shelf life (<i>stored in original container</i>)	18 months

* Information is based on our best knowledge and reviewed for the most requested regions only. We recommend to check current regulatory requirements in individual target countries. For more information contact our regulatory department or refer to our regulatory status statement.

Literature

¹ Gesellschaft Deutscher Chemiker, Arbeitsgruppe kosmetische Mittel – Müller, Dr. R. Vitamin E. Datenblätter zur Bewertung der Wirksamkeit von Wirkstoffen in kosmetischen Mitteln, Status June 2019, www.gdch.de.

For further information, please contact:
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