dr. straetmans®

Product Information

dermofeel® PA-3

The Product: dermofeel® PA-3

This natural chelating agent effectively inactivates metal ions by forming a complex between the chelator and the metal. Metal ions can enter a cosmetic formulation through the production equipment, as impurities from ingredients (e.g. extracts, pigments) and through process water. In cosmetic products, these ions can promote oxidation reactions, may cause discoloration, or impair the foaming properties of surfactants.

CHARACTERISTICS

- INCI: Sodium Phytate; Aqua; Alcohol
- Appearance: Colorless to brownish liquid (at 20°C)
- 100% naturally derived, already ECOCERT/COSMOS approved and compliant with other standards for natural cosmetic, please contact us for further information

- Readily biodegradable, no environmental risk

- Combination with other antioxidants (tocopherol, ascorbyl palmitate) is recommended
- Protects valuable ingredients from oxidation (e.g. unsaturated oils, fragrance components)
- In rinse-off products:
    - Maintains foaming properties in presence of hard water
    - Prevents precipitation of insoluble salts of fatty acids in soaps

- Better performance at higher pH (~ 6)

- pH of the raw material: 3

DOSAGE

Product Concept	Dosage
O/W-emulsions	0.05 – 2.0 %
Rinse-off products	0.1 – 0.2 %

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How to work with dermofeel® PA-3

MANUFACTURING PROCEDURE (LABORATORY SCALE)

dermofeel® PA-3 can be added to the water phase during every step in the production phase.
Note the low pH of 3 of **dermofeel® PA-3**:
For working with acid-sensitive raw materials, it is recommended to solve **dermofeel® PA-3** in water first, then to add the respective substances.

Easy to use and completely water soluble!

FORMULATION ADVICE

Boost performance	Combine with other antioxidants (e.g. **dermofeel® Toco 70 non GMO**, **dermofeel® AP MB**)
Please consider	Divalent ions are complexed and inactivated (therefore not recommended for W/O-emulsions)
	Pink discoloration with iron ions (e.g. in presence of Avobenzone)

APPLICATION IDEAS

Perfectly suitable for all kinds of emulsions, rinse-off products and tonics.

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

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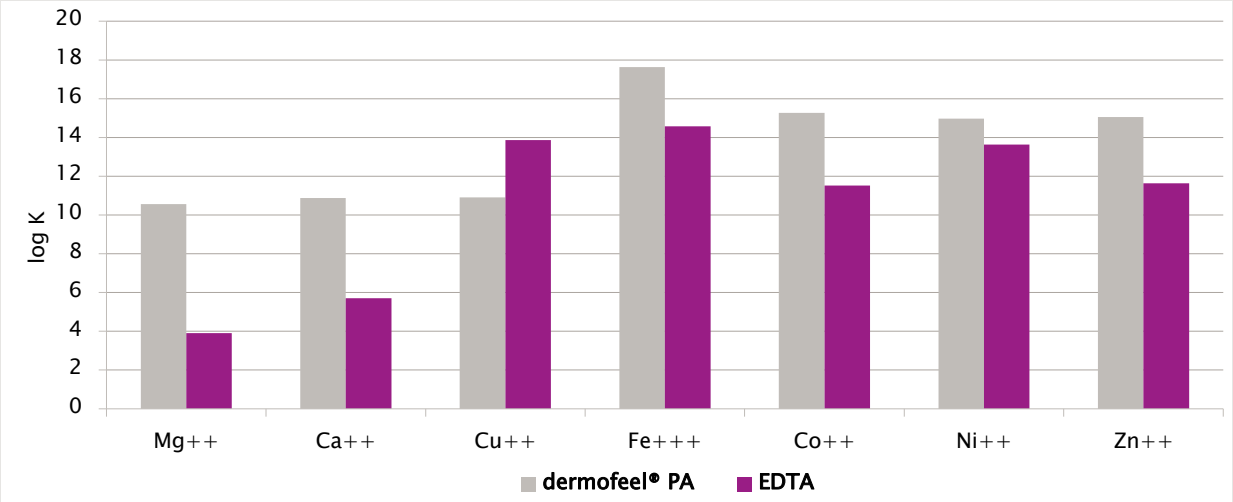
Proof of Performance

CHELATING ABILITY OF DERMOFEEL® PA

Comparison of stability constants for complexes at pH 6 between **dermofeel® PA** (INCI: Phytic Acid, Aqua) and EDTA.
dermofeel® PA-3 is the stabilized solution of **dermofeel® PA** and therefore representative for its activity.



The chelating efficacy of **dermofeel® PA/PA-3** is mostly comparable to the chelating activity of the commonly used EDTA. However, EDTA is not suitable for natural cosmetics.

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Trade Information

International Approval*	EU, USA, Australia, China, Japan
Packaging	10 kg
Shelf life (stored in original container)	36 months [1] [2]

* 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.

[1] Due to its chelating properties, do not store dermofeel® PA-3 in steel containers.
[2] The color of the raw material might change during storage without consequences for the product quality.

For further information, please contact:
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Product specification

Material **DERMOFEEL PA-3**
Spec.Code **K00 STANDARD**

Inspection Characteristics	Method	Limits	Units	Z
Appearance		OK		C
Sodium phytate content		48.0-52.0	%	X
Sodium		8.35-9.05	%	X
Chloride content		<=0.04	%	C
Sulphate		<=0.071	%	C
Heavy Metals as Pb		<=20	ppm	C
Arsenoxide As2O3		<=2	ppm	C
Total Phosphorus content		11.20-12.20	%	X

Appearance	at 20°C colorless to brownish liquid

Report on inspection certificate: X = specific/actual value, C = unspecific value/conformity, T = not reported

This document is computer printed and therefore valid without signature.
All warranty claims in respect of the conformity of our product are subject to our General Terms and Conditions of Sale and Delivery. The data listed above reflects the criteria for our internal quality tests. We do not hereby make any express or implied warranty, whether for specific properties or for fitness for any particular application or purpose. All values are valid for the product when despatched from the works.

The Standard Test Methods can be obtained from specialized publishers. Evonik's test methods are available on request.

Edition 5
18 October 2019

dermofeel® PA-3

Product Data Record (PDR)

1. General Information

1.1 Supplier

Evonik Nutrition & Care GmbH
Business Line Care Solutions
Goldschmidtstrasse 100
D-45127 Essen / Germany
personal-care@evonik.com
http://www.evonik.com/personal-care

1.2 Product Description

Dermofeel® PA-3 is in fully compliance with current cosmetic regulation (EC) No. 1223/2009.

1.2.1 Raw Material Category/Function

Chelating Agent

1.2.2 INCI Declaration

Sodium Phytate; Aqua; Alcohol

1.2.3 Composition

Components (INCI)	Source	Percentage
Sodium Phytate	Vegetable	50 %

This composition information serves for information of our customers only.
It is neither relevant for the composition listing according to Regulation (EC) No 1223/2009, nor does it reflect the chemical composition according to the different chemical regulations in the world which is disclosed in the table "information on ingredients/hazardous components" in the relevant parts of the respective (Material) Safety Data Sheets.

1.2.4 Additives

INCI EU/US	CAS No. / REACH Reg. No.	EINECS / EC No.	Content	Function
Aqua/Water	7732-18-5/ Exempt Annex IV REACH Reg.	231-791-2	49 %	Solvent
Alcohol (Vegetable origin)	64-17-5/ exempt < 1t/year	200-578-6	1 %	Head space preservation

Unless mentioned in our PDR under section 2.2 (By products) or 2.3 (CMR), no components which are listed in Annex II of the Regulation (EC) No 1223/2009 and its modifications and updates are added to and are not to be expected in the above mentioned product due to the raw materials used and the production process.

2. Production Process

2.1 General Information on the Production Process

dermofeel® PA-3 is obtained by extraction from rice bran with diluted mineral acid subsequently neutralized.

Irridation: dermofeel® PA-3 is not irradiated with γ-rays.

dermofeel® PA-3 is produced in the absence of any animal derived material of any type.
Based on the information on the manufacturing process and production site no contamination with BSE/ TSE risk materials is to be expected.

Residual plant based source (dominant origin of main constituents): rice

CITES: dermofeel® PA-3 is not based on raw materials from species listed in CITES appendices.

GMO-Status:
The item contains moieties from rice (including oils and other refined ingredients). During the production no GMOs and derivatives from GMOs are used. All reasonable measures have been taken to avoid cross-contamination with GMOs or derivatives from GMOs.

2.2 By-Product/Impurities

Potentially occurring by – products are not added intentionally. Impurities e.g. residual solvents are technically unavoidable.

Residual organic solvents	not applicable
Free amines	not applicable
Nitrosamines	not applicable
Monochloroacetic acid	not applicable
Dichloroacetic acid	not applicable
Pesticides	meets the valid regulatory requirements for limits on agricultural pesticides
Total heavy metals	max. 20 ppm
As (calc. as As2O3)	< 1.5 ppm (corresponds to < 2 ppm As2O3)
Latex	not to be expected in the product due to the raw materials used and the production process
VOC	< 3 % according to SR (Swiss Right) 814.018

2.3 CMR Substances

According to Cosmetic Regulation 1223/2009 the use of substances classified as CMR (**C**arcinogenic, **M**utagenic or **R**eprotoxic) substances of category 1A or 1B or 2, under Part 3 of Annex VI to Regulation (EC) No 1272/2008 in cosmetic products shall be prohibited.

Some of the CMR substances mentioned below and listed in Annex VI to Regulation (EC) 1272/2008 may be used as starting materials or solvents for the production of our cosmetic raw materials and may require reporting under California Proposition 65 or the California Safe Cosmetics Act, SB 484.

The presence of these substances has to be seen as non-intended and it is technically unavoidable in good manufacturing practice. Traces of CMR substances can derive from impurities of the starting materials or the manufacturing process.

CMR Substance	CAS Nr.	Starting material	Max. concentration/ Remark
Ethylene Oxide	75-21-8	no	
Propylene Oxide	75-56-9	no	
Octamethylcyclotetrasiloxane (D4)	556-67-2	no	
2-Ethylhexanoic Acid	149-57-5	no	
n-Hexane	110-54-3	no	
Methyl Chloride	74-87-3	no	
Dimethyl Sulphate	77-78-1	no	
1,4-Dioxane	123-91-1	no	
Formaldehyde	50-00-0	no	For more information on formaldehyde please refer to our factsheet available via our IntoBeauty website. https://intobeauty.evonik.com/

2.4 "Allergens" according to the Regulation (EC) No 1223/2009

The presence of substances, the mentioning of which is required under the column 'Other' in Annex III, shall be indicated in the list of ingredients in addition to the terms perfume or aroma.

None of those substances have been intentionally added to our cosmetic ingredients or are formed during the manufacturing process according to our knowledge of the chemistry. An analytical proof for the absence of traces of those substances is not performed in our cosmetic ingredients.

2.5 Food Ingredients listed in Annex II of Regulation (EU) No 1169/2011

None of these substances have been intentionally added to our cosmetic raw materials or are formed during the manufacturing process according to our knowledge of the chemistry.

2.6 Nanomaterial

The product is not a nanomaterial according to the definition given by Cosmetics Regulation (EC) No 1223/2009, the Commission Recommendation 2011/696/EU and the French Decree No. 2012-232. For details, a separate statement is available on request.

2.7 Substances of Very High Concern (SVHC)

The candidate list of substances of very high concern is regularly updated and published by ECHA. If applicable, the information on the substance/s from the candidate list, contained in our product in reportable amounts, is included in section 3 of the product related Safety Data Sheet (SDS).

2.8 Country of Origin

Dermofeel® PA-3 is manufactured in Japan

3. Animal Testing

We hereby confirm that we have never conducted any animal tests with our product dermofeel® PA-3 nor that we have ordered such tests at third parties or third parties have conducted such tests with our knowledge and acceptance to fulfil the requirements of Cosmetic Regulation 1223/2009.

Therefore dermofeel® PA-3 is in fully compliance with Cosmetic Regulation 1223/2009.

4. Microbiological Status

Total Viable Count	max. 100 cfu/g
Pathogens*	absent/g

*Pathogens are: Enterobacteria, Pseudomonas, Enterococci, Candida albicans, Staphylococci

5. Shelf Life / Storage Conditions

1080 days after production (unopened original packaging)

The color of the raw material might change during storage without consequences for the product quality

6. Regulatory Status

6.1 HS-Code: 291990

EU-CN-Code 29199000

6.2 Regulatory Status (Chemical Regulations)

Europe

Components Chemical Name/ INCI	REACH Status	CAS No.	EINECS / EC No.
Esters of sodium hydrogen phosphate with myo- Inositol, plant-derived / Sodium Phytate	REACH Reg. no: 01-2120795381-48	14306-25-3	238-242-6
Water/ Aqua	Exempt, Annex IV	7732-18-5	231-791-2
Ethanol/ Alcohol	Exempt <1t/y	64-17-5	200-578-6

Other Countries/Regions

Country		Yes / No	Remark
Sodium Phytate			
Australia	AICS:	Yes	
China	IECSC:	Yes	
Canada	DSL: NDSL:	No No	
Taiwan	TCSI:	Yes	

Country		Yes / No	Remark
Alcohol			
Australia	AICS:	Yes	
China	IECSC:	Yes	
Canada	DSL: NDSL:	Yes N.a.	
Taiwan	TCSI:	Yes	

In the following countries the relevant authorities currently do not request pre-market approval for cosmetic raw materials:

Brazil, Japan, South Korea, Philippines, USA

6.2.1 Regulatory Status (Cosmetic Regulations)

Country		yes / no	Remark
Sodium Phytate			
China	CFDA:	yes	IECIC No.08594
Japan	JSQI: JCIA:	No yes	 JCIA No. 559718
Alcohol			
China	CFDA:	yes	IECIC No.07676
Japan	JSQI: JCIA:	No Yes	JSQI No: 001075, but specification is not controlled JCIA No. 550003

7. Toxicology and Ecotoxicology

Refer to our document: “Summary of Toxicological and Ecotoxicological Data”

8. Packaging

10 kg cardboard box