

DSM's House of Naturals

Surprisingly natural

January, 2022

People seek naturally derived beauty products

- The natural and organic personal care market is estimated to continue growing at a rate of around 8% (consumer products retail sales)
- The highest growth is expected in Skin Care and Bath & Shower, followed by Hair Care and Sun Care*

* Source: Euromonitor The broadening Meaning of Green Beauty - 2017

IN THE UK

50%

of consumers who bought beauty products in the last 12 months **looked for products** made with natural ingredients

IN THE US

31%

of consumers using facial skincare **purchased products** that use natural ingredients; this increases to 49% for 18-34-year-olds

IN CHINA

45%

of female consumers using facial skincare **plan to use products** made from natural ingredients or herbs to improve their skin

Source: UK & US: Lightspeed/Mintel; China: KuRunData/Mintel

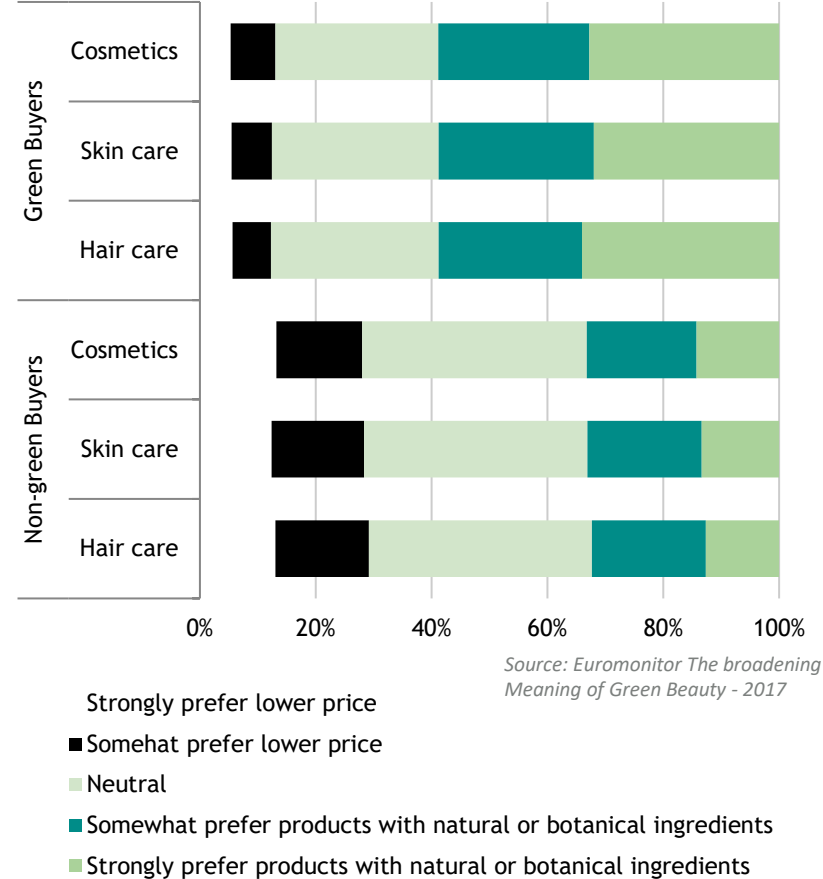
Base: 1,622 UK internet users aged 16+ who have purchased beauty products in the last 12 months; 1,747 internet users aged 18+ who use facial skincare products; 1,350 Chinese women who used facial skincare products in China

MINTEL



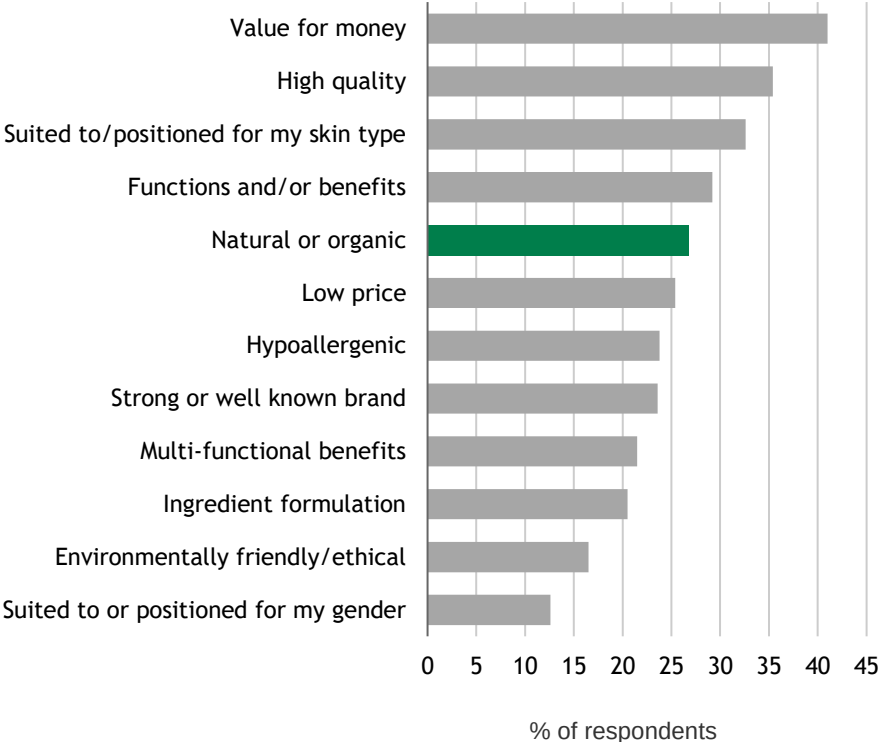
Consumers show willingness to pay a bit more for products with natural or botanical ingredients

Trade-off Decisions for Natural Features vs Price



- Claimed interest in the face of price *trade-offs* is a better predictor of purchase behaviours, as opposed to simple “interest in natural products”
- Between preferring “Lower Price” and “Natural or botanical ingredients”, in a Global Survey, on average around 40% of consumers choose “Natural or Organic ingredients”
- Natural or Organic product features are among the most desired by consumers

Skin Care: Most Desired Product Features - Global



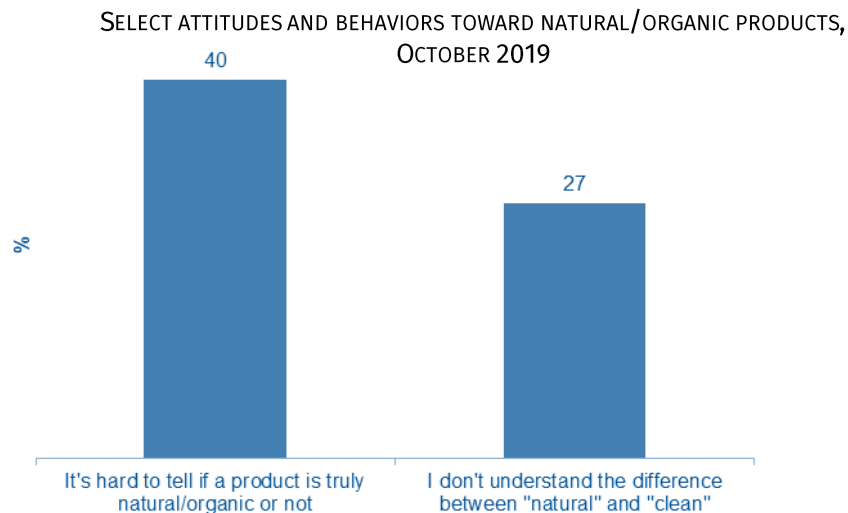
More clarity is needed within the natural

Consumers are confused about what «natural or organic» really means

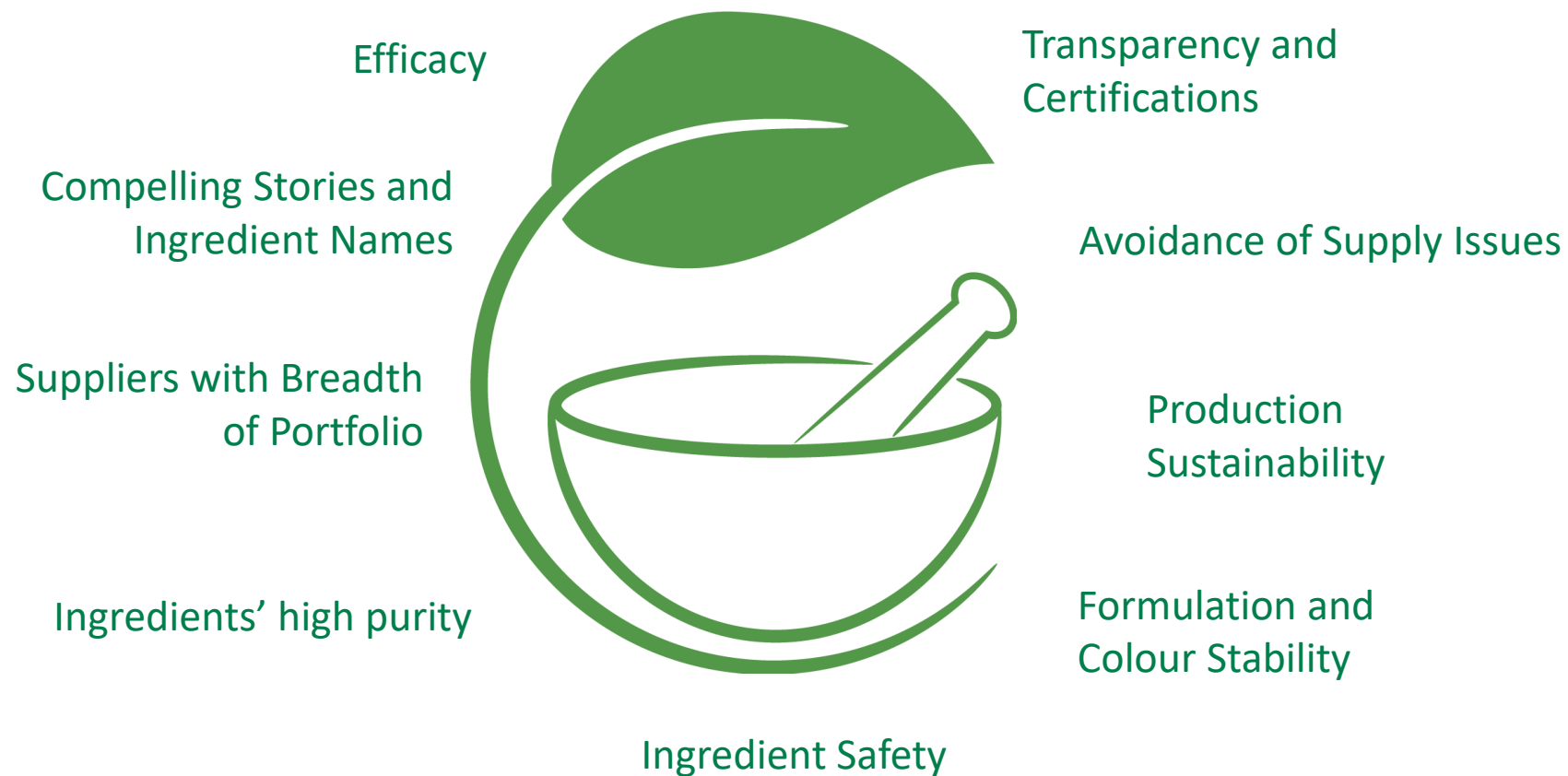
- 40% say it's hard to tell if a product is truly natural/organic or not
- The **lack of regulation** around clean and natural products leads to confusion among consumers
- The **inconsistent messaging for natural** can lead some consumers to question the integrity and honesty of natural beauty and personal care products, underscoring the need for more industry consensus.

28% think there should be **stricter regulations** regarding natural and organic claims and **24%** are **confused** about what certain natural **certifications mean**

Natural and organic personal care consumer, US - Mintel



Most relevant customer needs concerning Natural ingredients



Source: DSM mini-customer survey 2017, top 40 manufacturers with natural marketing claims on finished products packaging

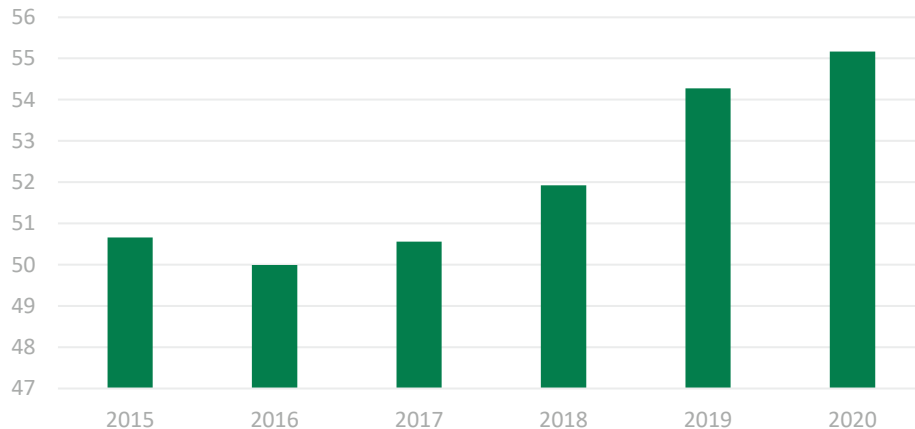


Consumer Products Companies invest in natural products

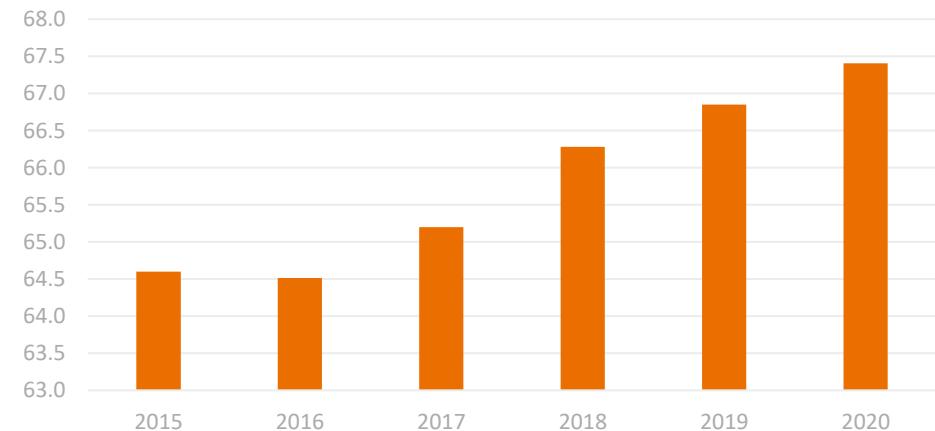
- Growing number of products launched with natural claims**
- More than 65% of all skin care launches since 2016 carried natural on-pack claim*

Number of Global product launches with natural claims on pack**

% launches with natural claim vs total BPC launches



% launches with Natural claim vs total skin care launches



* Source: Mintel GNPD,

** Products (BPC without fragrances) with claims All Natural Product, Botanical/Herbal, Organic

Welcome to our DSM Naturals range



The DSM House of Naturals is a portfolio of products that are of natural origin*

- More than 55 ingredients
- Representing more than 45% of DSM's Personal Care Portfolio

* : according to ISO 16128 standard

DSM House of Naturals



The DSM House of Naturals includes products that are having a natural origin score of 60% or above:

- Calculation according to the ISO 16128 standard “Guidelines on technical definitions and criteria for natural and organic cosmetic ingredients and products- parts 1 and 2”
- Calculation giving a content above 60% for mixes and an index above 0.6 for pure compound

We voluntarily discard from the DSM House of Naturals the following products even if they are compliant with the above definition:

- Any ingredients containing extracts of animal part
- Any ingredients where the active part is not of natural origin

The DSM House of Naturals



The DSM House of Naturals
is a portfolio of products
that are of natural origin





Edible
Vegetables



naturals
from DSM

- Well-known, safe ingredients, used also topically since centuries
- Rice, soy and wheat germs deliver beneficial natural protein and/or natural peptide content



EXAMPLES

PEPHA®-PROTECT, extract of *Citrullus lanatus*, a species of **watermelon** that originates from Kalahari desert.

In order to survive, it synthesizes tough defensive compounds, so-called compatible solutes - to protect important cellular structures such as DNA. Strengthens skin's own cell regeneration ability and helps to protect from DNA damage.

PENTAVITIN®, a 100% plant derived active from **maize kernels**.

It binds to the skin like a magnet. Brings tired, dry skin back to life. Ensures instant deep moisturization for 72 hours.

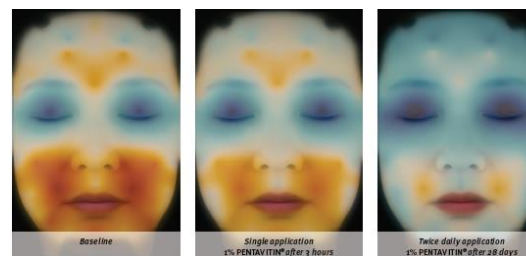
- Visible facial hydration after 3 hours and 28 days with 1% PENTAVITIN®
- Used for 28 days, 1% PENTAVITIN brings tired, dry skin back to life.



naturals
from DSM



naturals
from DSM





Herbs



- Our herbs extracts offer high performing organic bioactives cultivated at high altitude in the Swiss Mountains.



EXAMPLES

ALPAFLOR® EDELWEISS CB

Carefully selected variety of **Edelweiss flowers** having high content of skin actives like leontopodic acid

A powerful antioxidant and a potent skin barrier enhancer, without any preservative

ALPAFLOR® GIGAWHITE CB

Organic solution based on the extract of 7 **alpine herbs**

Illuminates the skin in a natural way, without any preservative

ALPAFLOR® SCUTELLARIA CB

Extracted from the leaves, stems and flowers of Scutellaria Alpina

Wellness for illuminating happy skin, softens the sensitive skin, relieves unpleasant skin sensation, without any preservative





Oils



naturals
from DSM

- Argan, sunflower, soy and sesame oils are some of the most traditional and well-known sources of beneficial compounds like unsaturated fatty acids and unsaponifiables.



EXAMPLES

Mixed Tocopherols 95 Soy-derived, natural-origin Vitamin E

Strong antioxidant, capturing free oxygen radicals generated by exposure to UV-light or pollution and preventing further damage.

REGU®-SEB Obtained from *Argan tree, sesame, saw palmetto*

Effective long term regulation and control of sebum production, based on 5 α -reductase inhibition.





Marine / Algae



naturals
from DSM



- More than 70% of the earth is covered by water. This provides many unique environments and rich resources that have great potential to produce bioactive compounds that can be used as pharmaceuticals, nutraceuticals and cosmeceuticals.

EXAMPLES

PEPHA®-AGE CB Produced from the green freshwater *microalgae* *Scenedesmus rubescens*.

Thanks to its unique composition of valuable components including algal monosaccharides, trace elements, and vitamins it stimulates skin's own defense against sunlight and helps to minimize the signs of aging caused by exposure to sunlight.

PEPHA®-CTIVE CB *Microalgae* extract (*Dunaliella salina*)

Protects and stimulates mitochondria by increasing ATP levels. Improves skin radiance.

PEPHA®-TIGHT CB Based on highly purified microalgae *Nannochloropsis occulata*.

Excellent skin tightening. Long-term firming and protection properties





Milk and Silk



naturals
from DSM

- Milk is widely known for incomparable skin benefits. Bathing in milk has been a popular beauty regimen among women for thousands of years
- Traditional and precious Silk-derived cocoon protein Sericin enhances skin with a shimmering, silk-like appearance and also offers smoothing and moisturizing benefits.



EXAMPLES

SERICIN Sericin from *silk*, improves skin relief and decreases TEWL.

Smoothing and moisturizing activity, film-forming persists even after washing. Leads to a silky skin touch.

LACTOMIDE Liposomal dispersion obtained from *milk* fermentation

Compensates loss of lipids in permeability barrier, reduces TEWL.





Yeast & Fermentation

- Preparations from yeast have long been used for cosmetic and pharmaceutical purposes
- Fermentation is perhaps the most ancient process mankind has ever used, as it unleashes many different compounds, some of which are very beneficial to the skin.



EXAMPLES

ERYTHRULOSE Produced via fermentation, gives a new dimension to your self-tanning products.

Leads to a deep, even and natural long-lasting tan without streaks, while avoiding skin dryness.

TILAMAR PDO with NØØVISTA™.

Multifunctional ingredient combining naturality, sustainability, conscious beauty, and high performance in only one product

Designed to reduce formulation complexity by acting as a preservative booster, a skin humectant, sensory enhancer and actives carrier..





Minerals



- Silica and Titanium Dioxide are minerals found in nature, used as versatile ingredients and as filters for UV protection



EXAMPLES

VALVANCE™ Look 100 Silica and Titanium dioxide

Provides subtle and light coverage that hides chromatic disorders for a flawless skin tone. Blurring effect on fine lines and wrinkles.

PARSOL® TX Rutile-type titanium dioxide (TiO₂) core with a very tight double coating of silica and dimethicone, for easy formulation and optimized sensory.

UVB filter providing a very good SPF performance as well as a significant contribution to UVA protection. It also offers high transparency in formulations, and is compatible with acrylate thickeners.



naturals
from DSM



naturals
from DSM

Making natural ingredients naturally simple to understand through the lens of three clear definitions



Certified organic.
Certified Organic according to Cosmos / Natrue standards.



Verified natural.
Conform to Ecocert, Cosmos or Natrue standards.



Natural origin.
Ingredients with a ISO 16128 natural origin score of 60%* or above.

* content above 60% for mixes and index above 0.6 for single molecules

DSM House of Natural: How it all plays out - Examples

Product Name DSM Code	Origin	INCI Name (Active)
 Edible Vegetables		
CEPHALIPIN NP 2 5033438 	Wheat	Cephalins
IRICALMIN PF* 5038293 	Wheat/ yeast	Triticum Vulgare (Wheat) Germ Extract, Saccharomyces Cerevisiae Extract, Sodium Hyaluronate, Panthenol
PENTAVITIN® 5033152  F H	Maize	Saccharide Isomerate
PHYTALURONATE® PF 5033527 	Carob	Ceratonia Siliqua Gum
 Herbs		
ALPAFLOR® EDELWEISS B. 5037123  H	Edelweiss	Leontopodium Alpinum Flower/Leaf Extract



CEPHALIPIN NP2's origin is from *Edible vegetables*, specifically Wheat. This product is from Natural Origin, as it has at least a 60% score on natural origin, as per ISO 12168



PENTAVITIN® is from *Edible Vegetables*, specifically Maize Kernels. This product is classified as Verified Natural (it complies with Ecocert, Cosmos and Natrue standards)



ALPAFLOR® EDELWEISS CB is from *Herbs*, specifically Edelweiss. This product is classified as Certified Organic (it is certified Ecocert, Cosmos and Natrue)





Edible vegetables



Herbs



Oils



	APPEARANCE			SENSATION	PHOTO-PROTECTION AND SENSORY BENEFITS
	SKIN AGEING PREVENTION & REJUVENATION	SKIN REVITALIZATION & CONTOUR REMODELING	SKIN TONE, SHINE CONTROL & PORE REFINEMENT	SKIN BARRIER PROTECTION, SENSITIVITY&COMFORT AND MOISTURIZING	
Edible vegetables	COLHIBIN PF - rice ELHIBIN® PF - soy PEPHA®-PROTECT - watermelon REGU®-AGE PF - rice/soy/yeast PREREGEN® PF - soy/yeast	REGU®-SLIM - guarana PENTACARE-NA-PF- wheat/carob		PENTAVITIN® - maize kernels PHYTALURONATE® PF - carob CEPHALIPIN NP2 - wheat IRICALMIN® PF* - wheat/yeast	
Herbs	ALPAFLOR® ARTEMISIA AO - genepi ALPAFLOR® BUDDLEJA AO - buddleja ALPAFLOR® IMPERATORIA AO - masterwort ALPAFLOR® SAMBUCUS AO - elderflower		ALPAFLOR® GIGAWHITE CB - mix 7 plants ALPAFLOR® ALP-SEBUM CB - alpine willow herb	ALPAFLOR® LINUM AO - alpine flax ALPAFLOR® MALVA AO - mallow ALPAFLOR® MARRUBIUM AO - horehound ALPAFLOR® SCUTELLARIA CB - alpine skullcap ALPAFLOR® EDELWEISS CB - edelweiss ALPAFLOR® NECTAPURE PF - thyme/buddleja	
Oils	D-alpha-TOCOPHERYL ACETATE soy MIXED TOCOPHEROLS 95 - soy Life's GLA™'10 n-6 Oil - evening primrose Life's GLA™'25 n-6 Oil - borage	BEAUACTIVE® - sunflower	BEAUACTIVE® - sunflower REGU®-SEB - argan tree, sesame, saw palmetto	STIMU-TEX® AS - barley/argan tree /shea butter ARGAN OIL - argan tree	



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* content above 60% for mixes and index above 0.6 for single molecules



	APPEARANCE			SENSATION	PHOTO-PROTECTION AND SENSORY BENEFITS AND MULTIFUNCTIONAL
	SKIN AGEING PREVENTION & REJUVENATION	SKIN REVITALIZATION & CONTOUR REMODELING	SKIN TONE, SHINE CONTROL & PORE REFINEMENT	SKIN BARRIER PROTECTION, SENSITIVITY&COMFORT AND MOISTURIZING	
 Marine / Algae	PEPHA®-AGE CB - Scenedesmus Rubescens algae	PEPHA®-CTIVE CB - Dunaliella salina algae PEPHA®-TIGHT CB - Nannochloropsis oculata algae			
 Silk & Milk				SERICIN - silk SETAKOL® PF - silk LACTOMIDE - milk/fermentation	
 Yeast & Fermentation	DISMUTIN PF - yeast REGU®-AGE PF- rice/soy/yeast PREREGEN® PF* - soy/yeast ASCORBIC ACID- corn STAY-C® 50- corn	OXY 229-PF - yeast REVITALIN® PF - yeast	ERYTHRULOSE - fermentation STAY-C® 50- corn	HYALURONIC ACID-BT - bacteria HYA-ACT™ M/S/XS - bacteria HYASOL-PF - bacteria IRICALMIN® PF - wheat/yeast LACTOMIDE - milk / fermentation LIPOGARD - yeast Vitamin B12 cryst - corn	TILAMAR® PDO with NOOVISTA™- rapeseed
 Minerals					PARSOL® TX - titanium dioxide PARSOL® ZX - zinc oxide VALVANCE® Look 100 - silica/titanium dioxide VALVANCE® Touch 250 - silica VALVANCE® Touch 210 - silica



Natural origin PC ingredients: Recognized by ISO 16128

Products (52) from DSM House of Naturals having a natural origin above 90%

100% NATURAL ORIGIN			98-99.9% NATURAL ORIGIN		90-97.9% NATURAL ORIGIN
ARGAN OIL	HYA-ACT™ M/S/XS	PEPHA®-TIGHT CB	ALPAFLOR® AO ACTIVES (7)	PENTACARE-NA PF	CEPHALIN NP ₂
ALPAFLOR® ALP-SEBUM CB	HYALURONIC ACID-BT	STAY-C® 50 *	ASCORBIC ACID	PHYTALURONATE® PF	DISMUTIN® PF
ALPAFLOR® EDELWEISS CB	<i>lifesGLA</i> ™10'n-6-oil	STIMU-TEX® AS	COLHIBIN PF	PREREGEN® PF	LACTOMIDE
ALPAFLOR® GIGAWHITE CB	<i>lifesGLA</i> ™25'n-6-oil	TILAMAR® PDO with NØØVISTA	ELHIBIN® PF	REGU®-AGE PF	LIPOGARD
ALPAFLOR® NECTAPURE PF	Mixed TOCOPHEROLS 95	VALVANCE® Touch 210	HYASOL PF	REVITALIN® PF	REGU®-SEB
ALPAFLOR® SCUTELLARIA CB	PENTAVITIN®	VALVANCE® Look 100	OXY 229 PF	SERICIN	PARSOL® ZX
BEAUACTIVE®	PEPHA®-AGE CB		PARSOL® TX	SETAKOL® PF	VALVANCE® Touch 250
ERYTHRULOSE	PEPHA®-CTIVE CB		PEPHA®-PROTECT		

* Based on Carbon method

According to ISO 16128, a natural origin index and a natural index can be provided, as soon as the **natural part** of the ingredient/molecule is **higher than 50%**. This table lists DSM's best-in-class personal care ingredients.

60 - 90% NATURAL ORIGIN

CEPHALIN NP₂

Vitamin B12 cryst

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