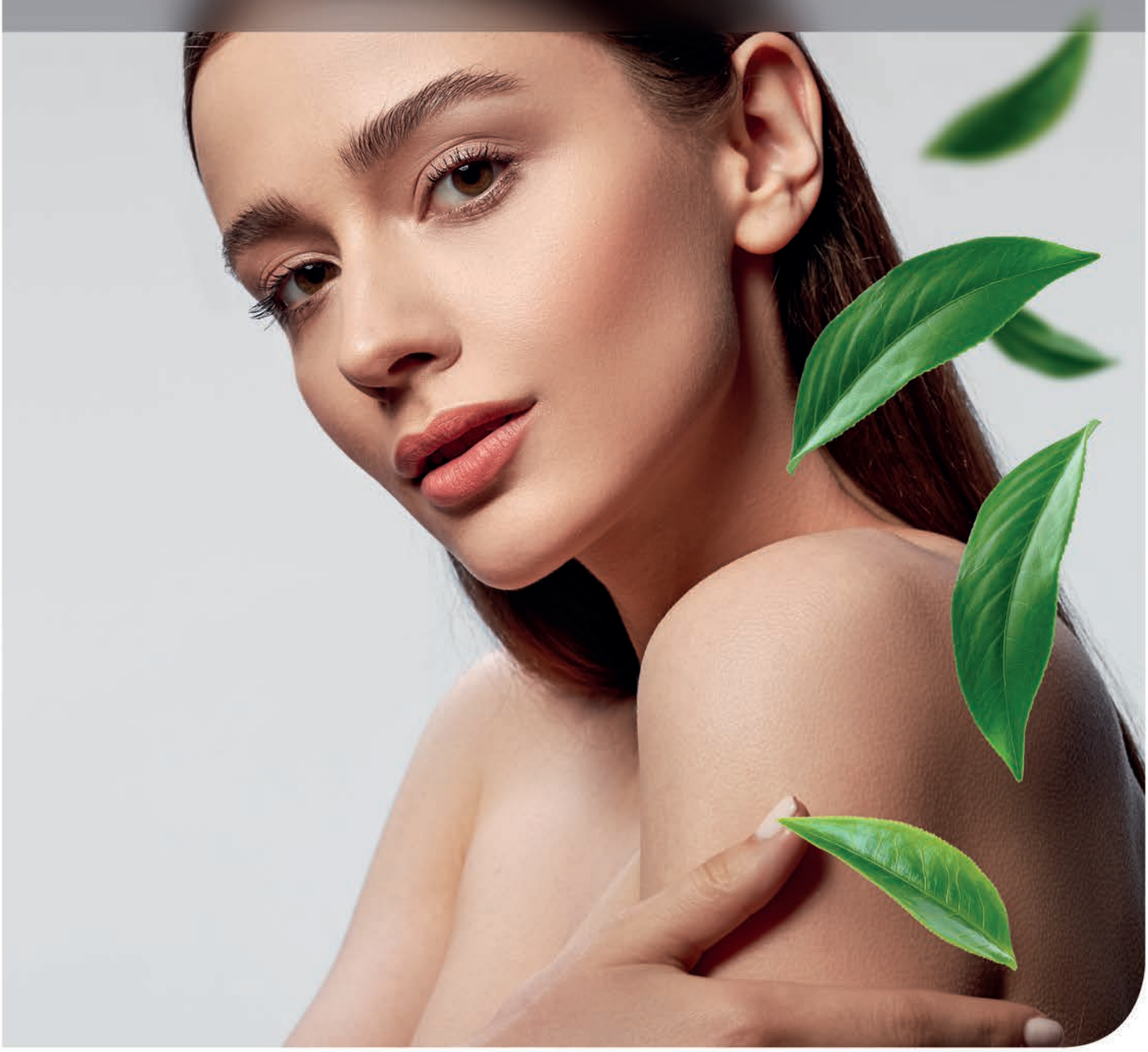
BioROKAMINA **K30B**

Coco Betaine

PCC Greenline®



PCC Exol

BioROKAMINA K30B

GMO FREE · BIO RAW MATERIALS · PRODUCT OF NATURAL ORIGIN · PARABEN FREE

Coco betaine

BioROKAMINA K30B is a very high purity, colourless amphoteric surfactant, with a content of about 30% of the active substance, belonging to the betaine group. This specific product is produced using a unique raw material of natural origin, which is a monochloroacetic acid called Greenline MCAA 80% UP Solution with the highest available purity. The raw material is based on natural acetic acid obtained in the fermentation process of plants. Thanks to the production with Greenline MCAA, the index of natural origin (in accordance with ISO 16128) of BioROKAMINA K30B is increased (manufacturer's declaration available on customer's request). Therefore, BioROKAMINA K30B is an ecological raw material, is more environmentally friendly, and can be used as an ingredient of natural cosmetic products with the highest index of natural origin. Another ingredient included in the composition of BioROKAMINA K30B is a derivative Palm Kernel Oil, otherwise known as African oil palm (Elaeis guineensis Jacq.). The high index of natural origin of this product, determined by its unique composition, means that it is very often used as a component of natural, ecological and vegan cosmetic formulations, for example, very mild washing preparations to remove impurities from the surface of the skin and hair of infants, children and adults.

BioROKAMINA K30B version also availiable as RSPO Mass Balance (MB)

CERTIFIED SUSTAINABLE PALM OIL RSPO
RSPO-4-1132-19-000-00

BioROKAIMNA K30B is a natural amphoteric surfactant which, in combination with anionic surfactants of the SLS and SLES type, causes a synergistic increase in the volume of foam produced. In formulations, this product also significantly improves their stability. An important advantage of this BIO betaine is also a high level of stability in solutions with a high salinity content. These features significantly improve performance by reducing the use of surfactants in cosmetics and other products. In addition to all its advantages, BioROKAMINA K30B has a very good ability to smooth and soften hair and skin. It also alleviates the irritating effect of other ingredients on the skin, especially those from the group of anionic surfactants, which is very desirable in cleansing cosmetic formulations.

Since betaines belong to the compounds reducing static charges that often appear on the surface of the hair, BioROKAMINA K30B is also antistatic, preventing static electricity of the hair. In this way, it conditions, i.e. softens and smooths the hair. As a result, it becomes sleek, soft and gains a beautiful and well-groomed appearance. In addition, BioROKAMINA K30B also has excellent hydrotropic properties, i.e. those that improve the clarity of the finished cosmetic product, affecting its quality.

BioROKAMINA K30B is one of the most effective rheology modifiers of preparations containing anionic surfactants in the presence of electrolytes. It is also characterised by much better thickening properties in the presence of electrolytes in comparison to amphoteric surfactants from the cocamidopropyl betaine group. Compared to standard ingredients from the surfactant group, BioROKAMINA K30B, when used as a component of personal care products, significantly reduces the undesirable irritating and sensitising properties of the finished product. Due to its natural origin and very gentle action on the skin and hair, this surfactant is recommended as the main raw material for production of cosmetics dedicated to sensitive skin prone to irritation and allergies. BioROKAMINA K30B is also perfect for care products for children because it is safe and friendly to their delicate skin.

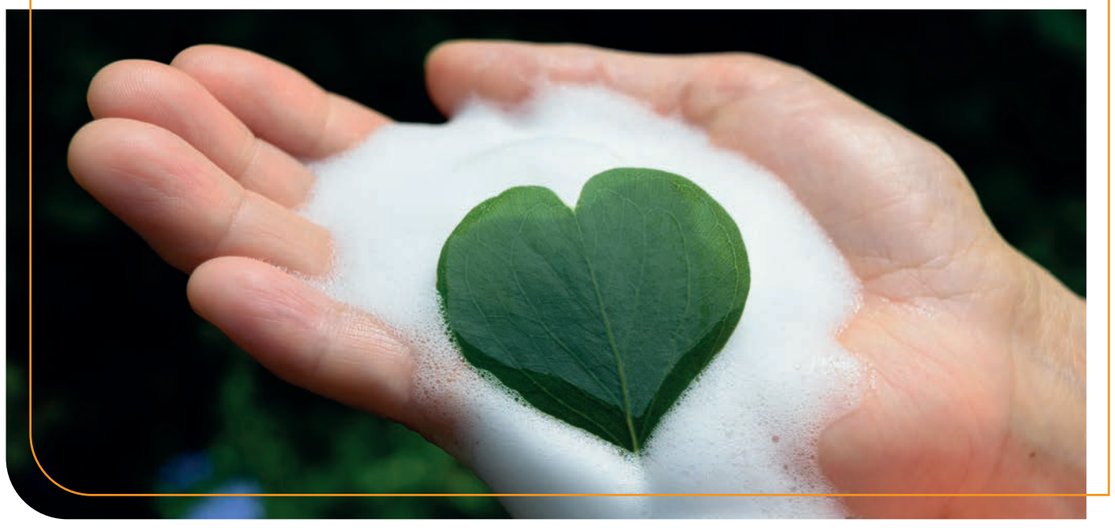
Advantages of the product:

- product made from natural raw materials (palm kernel oil derivatives and the unique **Greenline MCAA 80% UP**),
- excellent foaming properties,
- produces dense and stable foam in cleansing cosmetics,
- reduces the irritating effect of other ingredients contained in cosmetic formulations,
- has a very mild effect on the skin,
- especially recommended as an ingredient in cosmetics for sensitive skin prone to allergies and irritations,
- recommended for the production of care cosmetics for children,
- very good thickening properties in a wide range of pH and water hardness levels,
- excellent thickening properties in the presence of electrolytes (even better than, for example, cocamidopropyl betaine containing a higher concentration of the active substance),
- has an antistatic effect,
- manufactured on installations certified with the federal GMP EFfCI certificate (Good Manufacturing Practices implemented in accordance with the European Federation for Cosmetic Ingredients standard).

BioROKAMINA K30B

Coco Betaine

TECHNICAL REQUIREMENTS	
Appearance at temperature (20÷25)°C	light yellow liquid
Colour (Hazen units) at (20÷25)°C	max 150 (ASTM D1209-05(2019), spectrophotometric method)
pH of 5% solution	6.0 ÷ 8.0 (PN-EN 1262:2004, solution B at 20°C)
Active substance, %(m/m)	29.0 ÷ 33.0 Calculated: 100% - (water % + chlorides calculated as NaCl %)
Water content, %(m/m)	60 ÷ 64 (PN-ISO 760:2001, external dissolution method)
Chlorides calculated as NaCl, %(m/m)	6.5 ÷ 7.5 (LA/2152)
Total alkalinity, (meq/m)	1.15 ÷ 1.30 (LA/2150)
INFORMATIVE DATA*	
Solubility in water	infinite
Density at 25°C, g/mL	approx. 1.04
Solidification point, °C	below -10,0
Odour	weak, characteristic
Preservatives	none



BioROKAMINA K30B MB

Coco Betaine

TECHNICAL REQUIREMENTS	
Appearance at temperature (20÷25)°C	light yellow liquid
Colour (Hazen units) at (20÷25)°C	max 150 (ASTM D1209-05(2019), spectrophotometric method)
pH of 5% solution	6.0 ÷ 8.0 (PN-EN 1262:2004, solution B at 20°C)
Active substance, %(m/m)	29.0 ÷ 33.0 (Calculated: 100% - (water % + chlorides calculated as NaCl %)
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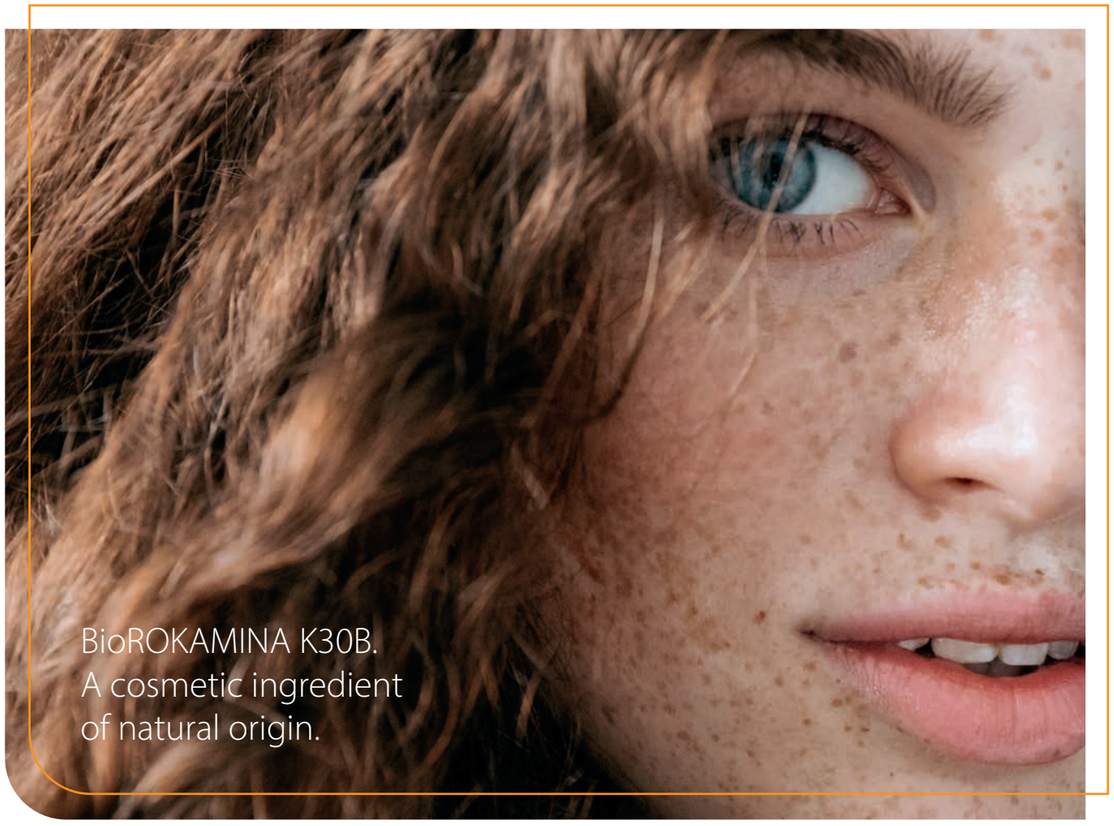
Total alkalinity, (meq/m)	1.15 ÷ 1.30 (LA/2150)
INFORMATIVE DATA*	
Solubility in water	infinite
Density at 25°C, g/mL	approx. 1.04
Solidification point, °C	below -10.0
Odour	weak, characteristic
Preservatives	none

It can be safely used in Eco, Organic, Vegan, Paraben Free and GMO Free products.

Applications

- cosmetics for adults and children
- shampoos (especially very mild shampoos for children and colouring shampoos)
- gentle care cosmetics for children
- cosmetics for sensitive skin prone to irritation
- hair conditioners
- shaving foams
- bubble bath
- hand soaps and shower gels
- face cleansing products
- oral hygiene products



LIQUID SOAP (KD-204)

Phase	INCI name	Brand name	Concentration [%]	Function
A	Aqua		up to 100	solvent
	Hydroxypropyl Methylcellulose		1.00	thickener
	Mica, CI 77891		0.10	colorant
	Maris Aqua		0.20	solvent/ activ
B	**Potassium Cocoate**	**EXOsoft PC35**	**8.00**	**surfactant**
C	**Coco Betaine**	**BioROKAMINA K30B**	**2.00**	**surfactant**
	Parfum		q.s.	fragrance

APPEARANCE	visual method	white liquid
pH		11.0 – 11.5

1. In a main vessel combine ingredients from phase A. Mix until uniform.

2. Add EXOsoft PC35 while mixing. Mix until uniform.

3. Add slowly BioROKAMINA K30B and Parfum while mixing. Mix until uniform.

GEL FOR INTIMATE HYGIENE (KD-208)

Phase	INCI name	Brand name	Concentration [%]	Function
A	Aqua		to 100.00	solvent
	Sodium Benzoate, Potassium Sorbate		0.50	preservative
	Betaine		2.00	active
	Glycerin		1.00	moisturising agent
	Lactic Acid		0.70	active/ pH adjuster
	Sodium Chloride		0.40	thickener
B	**Sodium Lauryl Sulfate**	**ROSULfan L/PH**	**18.00**	**surfactant**
C	**Coco Betaine**	**BioROKAMINA K30B**	**10.00**	**surfactant**

APPEARANCE	visual method	transparent gel
pH		4.0 – 4.5
VISCOSITY [cP]	Brookfield LV, spindle 34, speed 6.0 RPM, T: 25°C	1500 – 5000

1. In a main vessel combine ingredients from phase A. Mix until uniform.

2. Add Rosulfan L/PH while mixing. Mix until uniform.

3. Add slowly BioROKAMINA K30B while mixing. Mix until uniform.

PCC EXOL SA
Sustainable technologies for new generations

PCC EXOL SA combines innovative technologies with experience in designing, producing and selling surfactants and chemical formulations

PCC EXOL SA is a company that combines cutting-edge technologies with rich experience in production of surfactants (surface active agents). The company is located in Brzeg Dolny (Poland), where anionic, nonionic and amphoteric surfactant production plants have been launched. Due to the flexible production processes, the company offers a wide spectrum of surfactants and industrial formulations, which are often suited for the individual customers operating in plenty of various industry sectors. As one of the leading surfactant manufacturers, PCC EXOL SA carries out new investment projects and implements innovative technologies based on the global sustainability trends.

PCC EXOL SA portfolio includes surfactants with a broad range of applications. Besides of the mass production for personal care and detregents industry, the substances produced by PCC EXOL SA also include specialized products used in various branches, such as textile, agrochemical, metal cleaning, oil drilling, building & construction, paints & coatings, paper industry, extraction & drilling, and many others.
The company comprehensive portfolio is continuously enriched with new innovative products, which meet even the strictest market requirements and adapt to the individual needs of customers. This is possible due to the dynamic development of the research facilities, flexible production, knowledge as well as experienced personnel.

PCC EXOL SA has the key competence necessary for a worldwide production of surfactants. The ongoing projects will soon bring the new opportunities for the company's further development and expansion into new markets. The company offers not only a wide portfolio and professional servicing but most of all flexible production and comprehensive system solutions that meet individual customer demands. The strategic PCC EXOL SA investor is PCC SE, operating on international markets of the chemical raw materials, transport, energy, coal, coke, petrol, plastics and metallurgy. PCC SE includes 80 companies operating in 39 different locations in 17 countries.

In accordance with our environmental concerns, this publication from the PCC Group was printed on Cocoon Silk - ecological double-sided-coated matt paper. This paper is made of 100% waste paper using an environmentally friendly technology. The FSC® Certificate confirms that the raw materials used in the paper production process come from well-managed forests or other certified and controlled sources.

TEXT PAGES	
Brand	Cocoon Silk
Grammage	150
Number of pages	12

COVER PAGES	
Brand	Cocoon Silk
Grammage	250
Number of pages	4

PUBLICATION	
Size (cm)	21 x 29.7
Quantity	100

By using Cocoon Silk rather than non-recycled paper, the environmental impact was reduced by:

11 kg of landfill

1 kg CO_2 and greenhouse gases

15 km in an average European car

447 litres of water

24 kWh of energy

18 kg of wood

Carbon footprint data evaluated by Labelia Conseil in accordance with the Bilan Carbone® methodology. Calculations are based on a comparison between recycled paper versus virgin fibre paper - according to the latest European BREF data (virgin fibre paper) available.

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