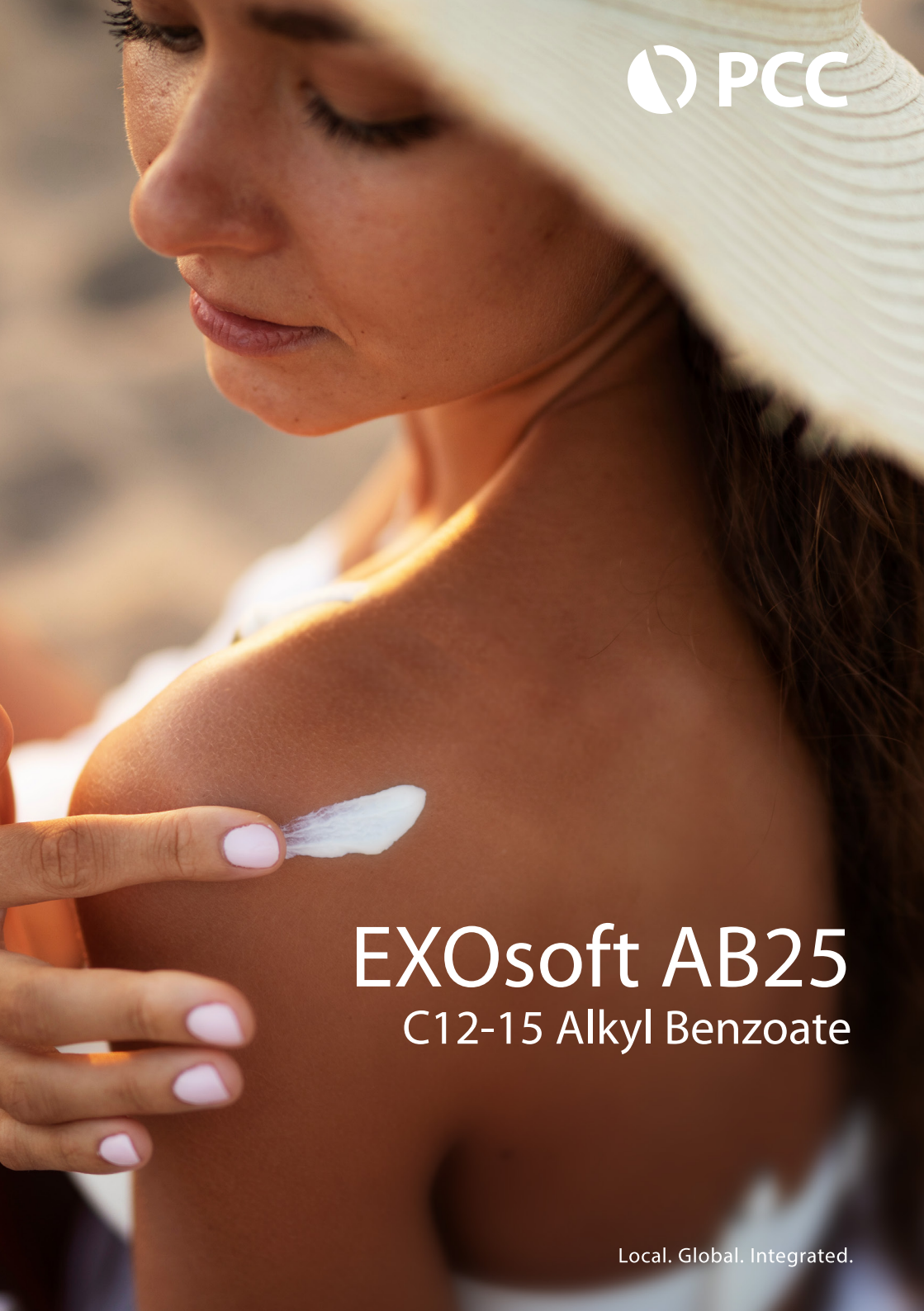


EXOsoft AB25

C12-15 Alkyl Benzoate

Local. Global. Integrated.

Description

EXOsoft AB25 is an ester of benzoic acid and C12-15 alcohols. It is an oily, clear liquid. It has light consistency and low viscosity. It is insoluble in water but is very well soluble in fats. EXOsoft AB25 regulates the epidermal microflora and has an antimicrobial effect. It inhibits the growth and development of microorganisms and prevents them from surviving in the product. In addition, it protects the skin from environmental pollutants and UV radiation. Its main area of application is the production of cosmetics, including personal hygiene products.

Advantages of the product

- milder effect on the skin compared to SLS and SLES,
- better solubility in oils compared to sodium salt,
- can be thickened with sodium chloride,
- solvent for oil soluble UV filters,
- solvent for other lipophilic active ingredients,
- creates a more stable foam compared to sodium salt,
- excellent emollient creating an occlusive layer on the skin,
- prevents water loss,
- reduces the reproduction of pathogens in cosmetics,
- very good emulsifying properties,
- makes the skin soft and smooth,
- facilitates cosmetic application,
- improves the properties of the cosmetic, which becomes lighter and less greasy,
- in antiperspirants, prevents skin whitening,
- does not contain allergens.

Application

- baby and child care products,
- make-up removers (milks, lotions),
- shower gels and bubble baths,
- face and body scrubs,
- face washing gels,
- face creams and masks,
- body lotions,
- sunscreens,
- coloured cosmetics,
- hand and foot creams,
- hair shampoos and conditioners,
- hair removal products.

in line with cosmetic trends

guarantee the consumer satisfaction

improvement of Personal Care formulations

innovative product

value for money

EXOsoft AB25

C12-15 Alkyl Benzoate

Chemical name	Benzoic acid, C12-15 alkyl esters	
INCI name	C12-15 Alkyl Benzoate	
CAS number	68411-27-8	
Function	Emollient	
Technical requirements	Appearance at temperature (20÷25)°C	clear liquid
	Colour (Hazen units) at (20÷25)°C	max 30
	Acid value, mg KOH/g	max 0.5
	Saponification number, mg KOH/g	176 ÷ 185
	Refractive index in temperature 20°C	1.483 ÷ 1.487
	Iodine value, g I2/100 g	max 1
Informative data	Molecular weight, g/mol	approx. 304
	Solubility in water	insoluble
	Other solvents	chloroform, hexane
	Density at 20°C, g/mL	approx. 0.96
	Odour	characteristic

Sunscreen SPF 15*

Phase	INCI name	Brand name	Concentration [%]	Function
A	Diethylamino Hydroxybenzoyl Hexyl Benzoate	–	5.0	UVA filter
A	Ethylhexyl Methoxycinnamate	–	5.0	UVB filter
A	Glyceryl Stearate Citrate	–	1.5	emulsifier
A	**Cetearyl Alcohol**	**EXOalc 1618**	**2.5**	**emulsion stabilizer**
A/C	**C12-15 Alkyl Benzoate**	**EXOsoft AB25**	**16.0**	**emollient**
B	Sclerotium gum (and) Xanthan Gum	–	0.1	rhelogy modifier
B	Aqua	–	66.8	solvent
B	Glycerin	–	2.0	solvent
C	Sodium Polyacrylate	–	0.3	rhelogy modifier
D	Phenoxyethanol, Ethylhexylglycerin	–	0.8	preservative

Appearance	visual method	yellowish paste
pH		5.0-6.0
Stability	1 month in 5°C, 20°C, 40°C	confirmed

Procedure:

1. Mix phase A, use 14% of EXOsoft AB25. Heat up to 80°C.
2. In a beaker mix Sclerotium and Xanthan Gum with Glycerin.
3. In main vessel combine Aqua with preservatives. Add Glycerin with Sclerotium and Xanthan Gum. Mix and heat up to 75-80°C.
4. Add phase A to phase B and homogenize for 40 sec.
5. Cool the batch down to 50°C while mixing.
6. Mix Sodium Polyacrylate with 2% of EXOsoft AB25 (phase C).
7. Add phase C to main vessel and homogenize for 40 sec.
8. Cool the batch down to 25°C while mixing, add preservative.

* theoretical value

Kids body mousse

Phase	INCI name	Brand name	Concentration [%]	Function
A	Sodium Cocoyl Isethionate	–	12.00	surfactant
A	Aqua	–	44.20	solvent
B	Sorbitol	–	10.00	active
B	Sodium Benzoate	–	0.50	preservative
B	Potassium Sorbate	–	0.30	preservative
C	Glycerin	–	25.00	active
C	Panthenol	–	1.00	active
D	**Sodium Lauroyl Sarcosinate**	**ROKAtend LS**	**4.50**	**surfactant**
D	**C12-15 Alkyl Benzoate**	**EXOsoft AB25**	**1.00**	**emollient**
D	Lactic Acid	–	0.30	pH adjuster
E	**Coco Betaine**	**ROKamina K30B**	**1.00**	**surfactant**
F	Parfum	–	0.20	fragrance
F	CI 16184	–	q.s.	dye

Appearance	visual method	pink paste
pH		5.0-5.5
Stability	1 month in 5°C, 20°C, 40°C	confirmed

Procedure:

1. Add Sodium Cocoyl Isethionate to warm water (50-55°C), homogenize.
2. Cool the batch down to at least 35°C.
3. Add Sorbitol and homogenize.
4. Add Sodium Benzoate and Potassium Sorbate, homogenize until uniform.
5. Next add Glycerin and Panthenol (phase C), homogenize.
6. Add ROKAtend LS, EXOsoft AB25 and Lactic Acid (phase D), homogenize until uniform.
7. Next add ROKAmina K30B and homogenize.
8. Add Parfum and dye.
9. Check pH, if necessary, add more lactic acid to 5.0-5.5.

After shave lotion

Phase	INCI name	Brand name	Concentration [%]	Function
A	Aqua	–	89.90	solvent
A	Allantoin	–	0.20	active
A	Carbomer	–	0.25	rheology modifier
B	**Polysorbate 80**	**ROKwinol 80**	**1.50**	**emulsifier**
B	**C12-15 Alkyl Benzoate**	**EXOsoft AB25**	**2.00**	**emollient**
C	**PPG-15 Stearyl Ether**	**ROKAnol SP15L MB**	**1.50**	**emollient**
D	Sodium Hydroxide	–	0.35	pH adjuster
D	Phenoxyethanol, Ethylhexylglycerin	–	0.80	preservative
D	Parfum	–	0.50	fragrance
E	Alcohol Denat	–	3.00	solvent

Appearance	visual method	white emulsion
pH		5.0-7.0
Stability	1 month in 5°C, 20°C, 40°C	confirmed

Procedure:

1. In separatly vessel combine ingredients from phase A and B.
2. Add phase B to phase A while mixing. Homogenize 60-90 sec.
3. Add ROKAnol SP15L MB while mixing. Homogenize with 2500-3500 RPM, 45 sec.
4. Add phase D while mixing. Homogenize with 2500-3000 RPM, 45 sec.
5. Add Alcohol Denat and mix.

Body lotion

Phase	INCI name	Brand name	Concentration [%]	Function
A	Aqua	–	86.50	solvent
A	Sodium Benzoate, Potassium Sorbate	–	1.00	preservative
B	**Cetearyl Alcohol, Ceteareth-25**	**EXOcare TE25 Flakes MB**	**2.00**	**emulsifier**
B	**PPG-15 Stearyl Ether**	**ROKAnol SP15L MB**	**2.00**	**emollient**
B	**C12-15 Alkyl Benzoate**	**EXOsoft AB25**	**4.00**	**emollient**
B	**Glycereth-26**	**ROKAnol G26**	**1.00**	**emollient**
B	Glyceryl Stearate, PEG-100 Stearate	–	3.00	emulsifier
C	Parfum	–	0.50	fragrance
D	Lactic Acid	–	for pH ~ 5	pH adjuster

Appearance	visual method	white emulsion
pH		5.0-5.5
Stability	1 month in 5°C, 20°C, 40°C	confirmed

Procedure:

1. Formulation should be prepared in vaacum homogenizer.
2. In a baker combine part of the water (~20%) with Sodium Benzoate and Potassium Sorbate.
3. In main vessel mix phase B with rest of the water. Heat up to 75-80°C and homogenize under vacuum.
4. Cool the batch down to 30°C while mixing. Add Parfum and water with preservatives.
5. Cool the batch down to 20-25°C while mixing.
6. Check pH, if necessary, add Lactic Acid to 5.0-5.5.

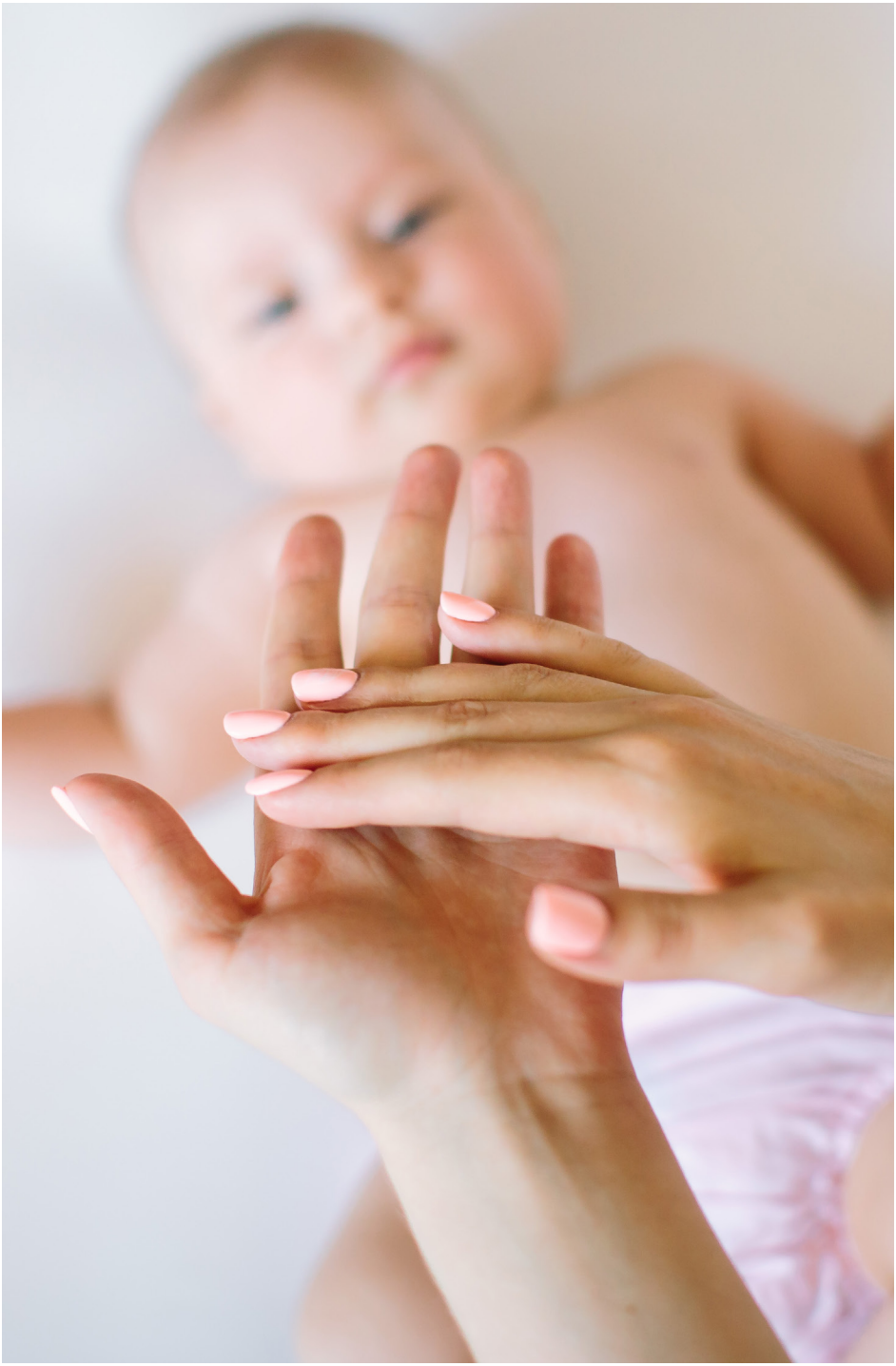
Mild body wash emulsion

Phase	INCI name	Brand name	Concentration [%]	Function
A	Sclerotium gum (and) Xanthan Gum	–	0.30	rhelogy modifier
A	Glycerin	–	2.00	solvent
B	**Ceteareth-25**	**ROKAnol T25**	**2.00**	**emulsifier**
B	**Cetearyl Alcohol**	**EXOalc 1618 flakes**	**3.00**	**emulsion stabilizer**
B	**C12-15 Alkyl Benzoate**	**EXOsoft AB25**	**2.00**	**emollient**
B	Aqua	–	73.15	solvent
B	Helianthus Annuus Seed Oil	–	8.00	emolient
B	Methylparaben	–	0.20	preservative
B	Ethylparaben	–	0.20	preservative
B	Stearic Acid	–	1.00	rhelogy modifier
C	**MIPA Laureth Sulfate and Propylene Glycol**	**SULFOROKAnol L290/1M**	**2.00**	**emollient**
C	**Sodium Lauroyl Sarcosinate**	**ROKAtend LS**	**5.00**	**surfactant**
C	Parfum	–	1.00	fragrance
C	Lactic Acid	–	0.15	pH adjuster

Appearance	visual method	white emulsion
pH		5.0-6.0
Stability	1 month in 5°C, 20°C, 40°C	confirmed

Procedure:

1. Formulation should be prepared in vaacum homogenizer.
2. In a beaker mix Sclerotium and Xanthan Gum with Glycerin (phase A).
3. In main vessel combine ingredients from phase B.
4. Mix phase A with phase B, heat to 70°C and homogenize under vacuum.
5. Cool the batch down to 50°C.
6. Add ingredients from phase C and mix slowly.
7. Cool the batch down to 25°C.
8. Check pH, if necessary, add more lactic acid to 5.0-6.0.



PCC Exol SA
Sienkiewicza 4
56-120 Brzeg Dolny, Poland
products@pcc.eu

Please visit our capital group business platform:
www.products.pcc.eu

April 2025