



# Formulation Guide 2025





## Introduction to Sisterna® sucrose esters

Safety and mildness are key requirements in today's personal care industry and are increasingly driving formulators to focus their interest on natural and naturally derived raw materials. But just being mild and safe is not enough: today's raw materials should meet an outstanding technological performance as well.

In Sisterna® sucrose esters these requirements are combined. Being based on sucrose and vegetable fatty acids, Sisterna® sucrose esters are a unique range of high quality, non-ionic emulsifiers with exceptional performance and mildness.

Sisterna® sucrose esters can offer other unique benefits to personal care formulations, thus offering formulators many advantages in these times of environmental consciousness.

Sisterna distinguishes itself as a flexible partner that will help to find technical solutions in the development, improvement and process optimising of personal care products.

Further guide formulations are available on request.





















































### Business Partners

Sisterna B.V. is responsible for the supply of Sisterna® sucrose esters in Europe and the Americas and has a network of exclusive distributors in its territory.

Visit our website [www.sisterna.com](http://www.sisterna.com) to find out more about Sisterna® sucrose esters and to find the business partner responsible for your country.

The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication. Nothing herein is to be construed as warranty expressed or implied. In all cases it is the responsibility of users to determine the applicability of such information or the suitability of any products for their own particular purpose.

# Certifications

Grade	Natrue	Ecocert / COSMOS	Natural Certified by NPA	RSPO	Kosher	Suitable for Vegetarians	Suitable for Vegans
PS750-C		 COSMOS APPROVED		 MIXED 2-0123-99-100-00			
L70-C		 COSMOS APPROVED		 CREDITS www.rsponet.org			
SP70-C		 COSMOS APPROVED		 MIXED 2-0123-99-100-00			
SP50-C		 COSMOS APPROVED		 MIXED 2-0123-99-100-00			
SP30-C		 COSMOS APPROVED		 MIXED 2-0123-99-100-00			
SP10-C		 COSMOS APPROVED		 MIXED 2-0123-99-100-00			
SP01-C		 COSMOS APPROVED		 MIXED 2-0123-99-100-00			
A10E-C				 MIXED 2-0123-99-100-00			

# Product range, functionalities & application concepts

Product range	PS750-C	L70-C	SP70-C	SP50-C	SP30-C	SP10-C	SP01-C	A10E-C
INCI-name	Sucrose Palmitate	Aqua (and) Sucrose Laurate (and) Alcohol	Sucrose Stearate	Sucrose Stearate	Sucrose Distearate	Sucrose Polystearate	Sucrose Polystearate	Sucrose Tetraostearate Triacetate
HLB value	16	15	15	11	6	2	<1	-
Physical form	powder	liquid (40%sol)	powder	powder	powder	powder	powder	powder
% mono ester	75	70	70	50	30	10	1	0

## Functionalities


Emulsifier O/W	●		●	●	●			
Co-emulsifier W/O						●	●	
Co-surfactant/ mild cleanser	○	●	○					
Lipidic phase modifier								●
Selective anti- microbial activity		●	●					

## Application concepts

Main emulsifier			●	●	●			
Co-emulsifier O/W and W/O	●		●			●	●	
Cold emulsifier	●		●					
Gel-to-milk	●		●					
Spray/wipe & serum emulsions	●		●					
Mild cleansing	○	●	○					
Anhydrous systems						●	●	●

● First choice


○ Good alternative

1		<b>Sucrose esters as main O/W emulsifier system</b>	ME.019 Light & Soft Body Butter	9
			ME.016 Mild After Sun Cream	11
			ME.017 The LLC Lotion	13
			ME.018 Sun Lotion SPF30	15


2		<b>Sucrose esters as co-emulsifier for O/W and W/O</b>	CoE.008 Las Vegas Protection Cream	19
			CoE.009 Arctic Protection Cream	21
			CoE.010 Moisturising Foundation	23

3		<b>Sucrose esters as cold emulsifier for O/W</b>	CE.007 High Viscous Light Cream	27
			CE.006 Light Cream-to-Oil	29
			CE.005 Serum Foundation	31

4		<b>Sucrose esters for gel-to-milk (concentrated emulsion technology)</b>	GE.006 Good Night Facial Cleanser	35
			GE.014 Purifying Clay-to-Milk Mask	37
			GE.015 Delicate Sandy Scrub	39

5		<b>Sucrose esters for spray/wipe and serum concepts (concentrated emulsion technology)</b>	SE.008 Conditioning Spray	43
			SE.009 Nourishing Body Spray	45
			SE.011 Gel-Lotion Eye Serum	47

6		<b>Sucrose esters for mild cleansing</b>	MC.013 Micellar Cleansing Water	51
			MC.011 Bath Milk	53

7		<b>Sucrose esters in anhydrous systems</b>	AS.006 Stylish Viking Beard Wax	57
			AS.013 Solid Sun Stick SPF20	59
			AS.012 Solid Face Serum	61
			AS.009 Lipstick Milano	63
			AS.004 Natural Cream-to-Powder Blush	65

# Sucrose esters as main O/W emulsifier system





# Sucrose esters as main O/W emulsifier system



Creating natural emulsions with a luxurious skin feel is a challenging task. This can be achieved with Sisterna® sucrose esters, which are excellent natural oil-in-water (O/W) emulsifiers. Furthermore Sisterna® sucrose esters provide an excellent touch and improve smoothness, emolliency and moisture level of the skin.

## O/W emulsions

Sisterna® sucrose esters with a medium to high HLB value are recommended for the development of natural and mild O/W emulsions.

Advised products:

- Sisterna SP30-C/Sisterna SP70-C in a 2/2 ratio for creams
- Sisterna SP30-C/Sisterna SP70-C in a 3/1 ratio for lotions (LLC)
- Sisterna SP50-C

## Benefits of Sisterna® sucrose esters in O/W emulsions

- Show very good emulsification properties with oils of different polarity, including vegetable and mineral oils, medium polarity and silicone oils
- Are suitable emulsifiers for the formation of traditional as well as lamellar liquid crystal type (LLC) emulsions
- Provide an excellent skin feel, largely independent of the oil phase
- Improve skin smoothness, emolliency and moisturisation
- Provide a cooling effect

With a combination of Sisterna SP30-C/SP70-C in a 2/2 ratio cosmetic mousses with a light texture and excellent skin feel can be prepared. An additional aerating step will be required in the production process. For more information, please contact Sisterna.

## FORMULATION INFORMATION

### ME.019 Light & Soft Body Butter

A rich body butter containing more than 20% of butters and waxes. The emulsifiers Sisterna SP30-C & Sisterna SP70-C and the oil thickener Sisterna A10E-C reduce the greasiness of these butters and solids. This also improves the spreadability and gives a lighter skin feel.



# ME.019

## Light & Soft Body Butter

**ID** : Main Emulsifier / ME.019  
**pH-value** : 5.8  
**Viscosity** : 511.000 mPa.s Brookfield DV2T, Spindle 95, 5 rpm  
**Product form** : O/W

	<b>Ingredient</b>	<b>INCI-name</b>	<b>% w/w</b>	<b>Supplier</b>
1	Deionised Water	Aqua	46.60	several
	Glycerin	Glycerin	2.50	several
	Bentone Hydroclay 700	Hectorite, Xanthan Gum	0.75	Elementis
	Euxyl PE9010	Phenoxyethanol, Ethylhexylglycerin	0.90	Ashland
2	LIPEX® SheaSoft TR™	Butyrospermum Parkii (Shea) Butter	15.00	AAK
	Coconut Oil	Cocos Nucifera (Coconut) Oil	7.90	several
	Sunflower Wax	Helianthus Annuus (Sunflower) Seed Wax	8.00	Koster Keunen
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	5.00	Sisterna
	Sisterna SP70-C	Sucrose Stearate	2.00	Sisterna
	Sisterna SP30-C	Sucrose Distearate	2.00	Sisterna
	Caprylic/Capric Triglyceride	Caprylic/Capric Triglyceride	6.00	several
	Tocomix L70-IP	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.05	Jan Dekker
3	CefiraProtect	Betaine, Isomalt, Lactobacillus Ferment Lysate, Kefiran	3.00	CLR
	Touch Of Memories 343956-D	Parfum	0.30	Luzi

### Production method

1. Disperse the Bentone Hydroclay 700 in the glycerin. Add to blend (of water and preservative) and mix with a propeller mixer at 500rpm for 10 minutes.
2. Heat (1) and (2) to 75°C.
3. Add (2) to (1) while homogenising.
4. Cool down to 40°C while continuously stirring and add (3) to (1+2) while homogenising shortly.
5. Cool down to room temperature under continuous stirring and adjust pH with (4) if necessary.

**FORMULATION INFORMATION**  
**ME.016 Mild After Sun Cream**

Sisterna SP30-C and Sisterna SP70-C create a light skin feel and improve skin smoothness, emolliency and moisturisation. Their mildness is key in this formulation.

# ME.016

## Mild After Sun Cream

**ID** : Main Emulsifier / ME.016  
**pH-value** : 5.4  
**Viscosity** : 45.800 mPa.s Brookfield DV2T, Spindle 93, 5 rpm  
**Product form** : O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Glycerin Xilogel HS Actigum VSX 20 Effisin PG Euxyl K 712	Aqua Glycerin Tamarindus Indica Seed Polysaccharide Sclerotium Gum, Xanthan Gum Pentylene Glycol Aqua, Sodium Benzoate, Potassium Sorbate	51.12 3.25 0.25 0.30 3.28 1.00	several several Indena Cargill Ashland Ashland
2	Sistema SP70-C Sistema SP30-C VAB - Vanilla Butter  Coconut Oil Apricot Oil Caprylic/Capric Triglyceride Lipex PreAct Tocomix L70-IP  Vitamin F Forte CLR	Sucrose Stearate Sucrose Distearate Prunus Amygdalus Dulcis (Sweet Almond) Oil, Helianthus Annuus (Sunflower) Seed Oil, Hydrogenated Vegetable Oil, Vanilla Planifolia Fruit Oil Cocos Nucifera (Coconut) Oil Prunus Armeniaca (Apricot) Kernel Oil Caprylic/Capric Triglyceride Canola Oil Tocopherol, Helianthus Annuus (Sunflower) Seed Oil Linoleic Acid, Linolenic Acid	2.00 2.00 9.00  6.05 7.00 5.00 5.00 0.25  1.20	Sistema Sistema EFP Biotek  several several several AAK Jan Dekker  CLR
3	Myramaze  Aqua Luna 357576 Citric Acid 20% solution	Propanediol, Aqua, Myrothamnus Flabellifolia Leaf/Stem Extract, Ascorbic Acid, Citric Acid Parfum Citric Acid	3.00  0.30 qs	Rahn  Luzi several

### Production method

1. Premix the Actigum VSX 20 and Xilogel HS into the glycerin.
2. Add the preservatives and the premix to (1) while homogenising during 20 minutes.
3. Heat (1) to 75°C.
4. Heat (2) to 70°C.
5. Add (2) to (1) while homogenising.
6. Cool down to 40°C while stirring.
7. Add (3) and homogenise shortly until the ingredients are incorporated.
8. Cool down to room temperature while stirring.
9. Adjust pH if necessary.

## FORMULATION INFORMATION

### ME.017 The LLC Lotion

Combining Sisterna SP30-C and Sisterna SP70-C in a 3/1 ratio, gives you the ability to create Lamellar Liquid Crystal (LLC) emulsions. The addition of 2% cetearyl alcohol further enhances the LLC networks. The velvet skin feel created by using sucrose esters is enhanced by the LLC emulsion, also providing a better stability and a controlled release of actives.

# ME.017

## The LLC Lotion

**ID** : Main Emulsifier / ME.017  
**pH-value** : 7.10  
**Viscosity** : 43.200 mPa.s Brookfield DV2T, Spindle 94, 5 rpm  
**Product form** : O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Glycerin 99% Bentone Hydroclay 700	Aqua Glycerin Hectorite, Xanthan Gum	65.50 4.00 1.00	several several Elementis
2	Sisterna SP30-C Sisterna SP70-C Cetearyl Alcohol Sweet Almond Oil  Avocado Oil Jojoba Oil Tocomix L70-IP	Sucrose Distearate Sucrose Stearate Cetearyl Alcohol Prunus Amygdalus Dulcis (Sweet Almond) Oil Persea Gratissima (Avocado) Oil Simmondsia Chinensis (Jojoba) Seed Oil Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	3.00 1.00 2.00 6.50  7.00 6.50 0.05	Sisterna Sisterna several several  several several Jan Dekker
3	Sensiva Go Natural  Soyamine  Vibrant Herbs 261239	Caprylyl Glycol, Glyceryl Caprylate, Propanediol Water, Butylene Glycol, Glycine Soja (Soybean) Germ Extract Parfum	1.15  2.00  0.30	Ashland  TriBeauté  Luzi
4	Citric Acid (20% Aq. Sol.)	Citric Acid, Aqua	q.s.	several

### Production method

1. Disperse the Bentone Hydroclay 700 into the glycerin.
2. Add the premix to (1) with propeller mixing and stir during 20 minutes and heat to 75°C.
3. Heat (2) to 70°C.
4. Add (2) to (1) under stirring and homogenise.
5. Cool down to 40°C and add (3) to (1+2).
6. Adjust pH with (4) if necessary.
7. Cool down to room temperature while stirring.



## FORMULATION INFORMATION

### ME.018 Sun Lotion SPF30

The negative sensation of ingredients on the skin, such as sun filters, is countered by using Sisterna SP70-C and Sisterna SP30-C as the emulsifier system. They improve spreadability, skin softness and the overall after-feel of the formulation in a natural way.

# ME.018

## Sun Lotion SPF30

**ID** : Main Emulsifier / ME.018  
**pH-value** : 7.15  
**Viscosity** : 59.600 mPa.s Brookfield DV2T, Spindle 94, 5 rpm  
**Product form** : O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Glycerin Actigum VSX 20 Sensiva SC80	Aqua Glycerin Sclerotium Gum, Xanthan Gum Propanediol, Caprylyl Glycol, Caprylhydroxamic Acid	50.50 3.00 0.60 1.50	several several Cargill Ashland
2	Sisterna SP70-C Sisterna SP30-C VS - Olive Squalane Lipex PreAct Jojoba Oil VASGel	Sucrose Stearate Sucrose Distearate Squalane Canola Oil Simmondsia Chinensis (Jojoba) Seed Oil Hydrogenated Ethylhexyl Olivat, Hydrogenated Olive Oil Unsaponifiables, Hydrogenated Castor Oil, Sebacic Acid Copolymer	3.00 3.00 6.00 3.00 6.00 3.00	Sisterna Sisterna EFP Biotek AAK several EFP Biotek
3	Xperse 102	Zinc Oxide, Caprylic Capric Triglyceride, Polyhydroxystearic Acid	20.00	Evercare
4	Tocomix L70-IP  Suncare 555828	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil Parfum	0.05  0.35	Jan Dekker  Luzi

### Production method

1. Premix the Actigum VSX20 into the glycerin of (1).
2. Add Sensiva SC80 to the water of (1).
3. Disperse the premix of glycerin into (1) while homogenising during 20 minutes.
4. Heat the water phase to 75°C.
5. Weigh the ingredients of (2) and heat up to 75°C.
6. Weigh the ingredients of (3) and add to the heated oil phase (2), homogenise during 3 minutes until good dispersion is obtained.
7. Add (2+3) to (1) while homogenising continuously.
8. Cool down to 40°C and add (4), homogenise shortly.
9. Adjust pH if necessary.



# Sucrose esters as co-emulsifier for O/W and W/O

2



# Sucrose esters as co-emulsifier for O/W and W/O



Creating natural emulsions with a luxurious skin feel is a challenging task. Sisterna® sucrose esters are excellent natural co-emulsifiers for both oil-in-water (O/W) and water-in-oil (W/O) skin care emulsions. Furthermore Sisterna® sucrose esters provide an excellent touch and improve smoothness, emolliency and moisture level of the skin.

## O/W emulsions

Sisterna® sucrose esters with a high HLB value are recommended for the development of O/W emulsions.

Advised products:

- Sisterna SP70-C as co-emulsifier with a low HLB food emulsifier, such as glycerylstearate citrate or glyceryl monostearate

Benefits of Sisterna® sucrose esters in O/W emulsions:

- Show very good emulsification properties with oils of different polarity, including vegetable and mineral oils, medium polarity and silicone oils
- Are suitable emulsifiers for the formation of traditional as well as lamellar liquid crystal type emulsions
- Provide an excellent skin feel, largely independent of the oil phase
- Improve skin smoothness, emolliency and moisturisation
- Provide a cooling effect

## W/O emulsions

Sisterna® sucrose esters with a low HLB value are recommended for the development of W/O emulsions.

Advised products:

- Sisterna SP01-C or Sisterna SP10-C as co-emulsifier

Benefits of Sisterna® sucrose esters in W/O emulsions:

- Improve the spreading and after skin feel properties of the emulsion
- Eliminate the oily/greasy sensation typical of W/O emulsions

## FORMULATION INFORMATION

### CoE.008 Las Vegas Protection Cream

Sisterna SP70-C can be used as a natural co-emulsifier for O/W emulsions. It improves the skin feel and increases the mildness of a formulation. Dosing Sisterna SP70-C only as a co-emulsifier is also a good way of using the benefits more economically for mass market products.

# CoE.008

## Las Vegas Protection Cream

**ID** : Co-emulsifier / CoE.008  
**pH-value** : 5.5  
**Viscosity** : 46.800 mPa.s Brookfield DV2T, Spindle 93, 5 rpm  
**Product form** : O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Dermosoft MCA Variante	Aqua Dipropylene Glycol, Caprylyl Glycol, Glyceryl Caprylate	70.85 1.00	several Dr. Straetmans
2	Disodium EDTA	Disodium EDTA	0.10	several
3	Carbopol Ultrez-10	Carbomer	0.30	Lubrizol
4	CCT Oil Eusolex HMS Eusolex OCR Eusolex 9020 Amisoft HS-11P(F) Sisterna SP70-C Dermafeel GSC Cetearyl Alcohol Keltrol CG-SFT Dermafeel Toco 70	Caprylic/Capric Triglyceride Homosalate Octocrylene Butyl Methoxydibenzoylmethane Sodium Stearoyl Glutamate Sucrose Stearate Glyceryl Stearate Citrate Cetearyl Alcohol Xanthan Gum Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	8.00 2.00 2.00 2.00 0.15 2.00 2.00 2.00 0.30 0.20	several Merck Merck Merck Ajinomoto Sisterna Dr. Straetmans several CP Kelco Dr. Straetmans
5	NaOH (29% sol.)	Sodium Hydroxide, Water	0.90	several
6	RADICARE-GOLD	Crambe Abyssinica Seed Oil, Beta-Carotene, Xanthophylls, Tocopherol, Helianthus Annuus (Sunflower) Seed Oil, Rosmarinus Officinalis (Rosemary) Leaf Extract	3.00	Rahn
7	Dreams Come True	Parfum	0.20	Luzi

### Production method

- Mix the ingredients of (1).
- Add (2) to (1).
- Add (3) to the surface of (1+2). Wait until the powder is fully hydrated, mix thoroughly until completely dissolved.
- Heat (1+2+3) to 70°C while stirring.
- Mix the ingredients of (4) and heat to 70°C while stirring.
- Add (4) to (1+2+3) and homogenise.
- Cool down to 40°C while stirring gently.
- Add (5, 6, 7) separately.
- Cool down to room temperature while stirring.

## FORMULATION INFORMATION

### CoE.009 Arctic Protection Cream

Dosing Sisterna SP01-C in this heavy duty W/O cream, improves the spreading properties, eliminates the oily or greasy sensation and enhances the after skin feel. It makes the total cream feel like a rich O/W emulsion. The addition of Sisterna A10E-C increases viscosity and improves the sensorial aspect of the final formulation.

# CoE.009

## Arctic Protection Cream

**ID** : Co-emulsifier / CoE.009  
**pH-value** : Not applicable  
**Viscosity** : 371.200 mPa.s Brookfield DV2T, Spindle RV07, 5 rpm  
**Product form** : W/O

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water	Aqua	62.40	several
	Magnesium Sulfate 7H2O	Magnesium Sulfate Heptahydrate	0.70	several
	Glycerin 99%	Glycerin	3.00	several
	Snow Algae Powder	Coenochloris Signiensis Extract, Maltodextrin, Lecithin, Aqua	2.00	Mibelle
	Glycoin Natural	Glyceryl Glucoside, Aqua	1.00	Bitop
2	Sistema SP01-C	Sucrose Polystearate	1.50	Sistema
	Sistema A10E-C	Sucrose Tetrastearate Triacetate	3.00	Sistema
	Arlacel 1690	Sorbitan Isostearate, Polyglyceryl-3 Polyricinoleate	3.00	Croda
	Olive Squalane	Squalane	7.00	EFP Biotek
	Arnica Oil CLR	Glycine Soja (Soybean) Oil, Arnica Montana Flower Extract, Tocopherol	5.00	CLR
	Probarrier CLR	Aqua, Caprylic/Capric Triglyceride, Copernicia Cerifera (Carnauba) Wax, Decyl Glucoside, Pentylene Glycol	3.00	CLR
	Olive Squalene Wax	Olea Europaea (Olive) Oil unsaponifiables	3.00	EFP Biotek
	Dermofeel Toco 70 non GMO	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.50	Dr. Straetmans
	Vegetable Alternative to Lanolin	Butyrospermum Parkii (Shea Butter), Glyceryl Rosinate, Olea Europaea (Olive) Oil unsaponifiables	3.50	EFP Biotek
3	Fragile Green 260906-A	Parfum	0.30	Luzi
	Borealine Protect	Glycerin, Picea Mariana Bark Extract	0.10	Lucas Meyer
	Euxyl K830	Phenoxyethanol, Ethylhexylglycerin, Octenidine HCl	1.00	Ashland

### Production method

1. Heat (1) until 75°C.
2. Heat (2) until 75°C.
3. Add (1) to (2) while homogenising.
4. Cool down while stirring to 35°C-40°C and add (3).
5. Homogenise shortly.
6. Cool down to room temperature while stirring.

**FORMULATION INFORMATION**  
**CoE.010 Moisturising Foundation**

By including Sisterna SP10-C in this formulation, the spreading properties are improved, the oily or greasy sensation is eliminated and the after skin feel is enhanced. It results in a very light feeling W/O foundation.



# CoE.010

## Moisturising Foundation

**ID** : Co-emulsifier / CoE.010  
**pH-value** : Not applicable  
**Viscosity** : 12.000- 15.000 mPa.s Brookfield RVDV 1+, Spindle 05, 20 rpm  
**Product form** : W/O

	<b>Ingredient</b>	<b>INCI-name</b>	<b>% w/w</b>	<b>Supplier</b>
1	Neossance Squalane	Squalane	2.50	Aprinova
	Neossance Hemisqualane	C13-15 AlkaneEmolliente	12.85	Aprinova
	Essachem EH	Octyldoceyl Olivat	3.00	TC USA
	Sistema SP10-C	Sucrose Polystearate	1.00	Sistema
	Vitamin E	Tocopheryl Acetate	0.15	several
	SolAmaze Natural	Diisostearoyl Polyglyceryl-3 Dimer	3.50	Nouryon
	Bentone Luxe XO	Dilinoleate, Caprylic/Capric Triglyceride C13-15 Alkane, Distearidimonium Hectorite, Polyglyceryl-3 Polyricinoleate	7.00	Elementis
2	Bentone Luxe XO	C13-15 Alkane, Distearidimonium Hectorite, Polyglyceryl-3 Polyricinoleate	3.00	Elementis
	Bentone LC V	C9-12 Alkane, Distearidimonium Hectorite, Triethyl Citrate	3.00	Elementis
	Tarox Iron Oxide R-800HP	Iron Oxides C.I. 77491	0.20	Iwase Cosfa
	Tarox Iron Oxide BL-100HP	Iron Oxides C.I. 77499	0.13	Iwase Cosfa
	Tarox Iron Oxide LL-100HP	Iron Oxides C.I. 77492	0.82	Iwase Cosfa
	Hombitan AFDC101	Titanium Dioxide	10.00	Venator
3	Deionised Water	Aqua	45.85	several
	NaCl	Sodium Chloride	1.00	several
	MgsO4	Magnesium Sulfate	1.00	several
	Glycerin	Glycerin	2.00	several
	Euxyl PE 9010	Phenoxyethanol, Ethylhexylglycerin	1.00	Ashland
4	Amaze Nordic Barley	Hordeum Vulgare Seed Flour	2.00	Nouryon

### Production method

1. First mix (1) and then mix (2) until homogenous.
2. Add (2) to (1) and mix until homogeneous. Heat to 70°C.
3. Mix (3), heat to 70°C and add to (+2) and homogenise for 5 minutes with a high shear mixer.
4. Cool down to 35°C while stirring and add (4). Homogenise shortly with a high shear mixer for 1 minute.

# Sucrose esters as cold emulsifier for O/W



# Sucrose esters as cold emulsifier for O/W



Cold process emulsifiers are becoming increasingly popular as a way of reducing costs and obtaining a greener production method. Sisterna® sucrose esters are excellent emulsifiers for cold process oil-in-water (O/W) emulsions. Furthermore Sisterna® sucrose esters provide an excellent touch and improve smoothness, emolliency and moisture level of the skin.

## O/W emulsions

Sisterna® sucrose esters with a high HLB value are recommended for the development of cold process O/W emulsions.

Advised products:

- Sisterna SP70-C
- Sisterna PS750-C

Benefits of Sisterna® sucrose esters in cold process O/W emulsions:

- Show very good emulsification properties with oils of different polarity, including vegetable and mineral oils, medium polarity and silicone oils
- Easy to use
- Safe and mild
- Provide an excellent skin feel, largely independent of the oil phase
- Improve skin smoothness, emolliency and moisturisation
- Provide a cooling effect

## FORMULATION INFORMATION

### CE.007 High Viscous Light Cream

Simple and effective formulation with Sisterna SP70-C, showing the high viscosity you can achieve with this cold production concept. Sucrose esters decrease the oily sensation of oils and therefore up to 60% can be dosed to create the highest viscosity possible. Include a hydrocolloid that gives a good viscosity build up to boost it even more. Tips and tricks to achieve a high viscosity: take a close look at the thinning behaviour of preservatives, actives and perfumes!

# CE.007

## High Viscous Light Cream

**ID** : Cold emulsification / CE.007  
**pH-value** : 5.45  
**Viscosity** : 63.200 mPa.s Brookfield DV2T, Spindle 93, 5 rpm  
**Product form** : O/W – Cold production

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Glycerin Bentone Hydroclay 700 Sensiva SC80	Aqua Glycerin Hectorite, Xanthan Gum Propanediol, Caprylyl Glycol, Caprylhydroxamic Acid	31.50 3.00 1.50 1.00	several several Elementis Ashland
2	CCT Oil Sisterna SP70-C* Sweet Escape 233206-A	Caprylic Capric Triglycerides Sucrose Stearate Parfum	59.70 3.00 0.30	several Sisterna Luzi

\* Alternative grade: [Sisterna PS750-C](#) (INCI: [Sucrose Palmitate](#)). Viscosity: 56.100 mPa.s

### Production method

Cold Production

1. Premix the Bentone Hydroclay 700 into the glycerin of (1).
2. Add Sensiva SC80 to the water of (1).
3. Disperse the premix of glycerin into (1) under paddle missing for 20 minutes.
4. Mix (2) in given order while stirring to homogeneous solution.
5. Add (2) into (1) while homogenising.
6. Adjust pH if necessary.

**FORMULATION INFORMATION**  
**CE.006 Light Cream-to-Oil**

A gentle cream with a high percentage of light oils that gives a balanced oily sensation when applying it. This ensures a long playtime and a nice feeling of skin moisturisation, which is also a result of using Sisterna SP70-C.

# CE.006

## Light Cream-to-Oil

**ID** : Cold emulsification / CE.006  
**pH-value** : 5.41  
**Viscosity** : 16.200 mPa.s Brookfield DV2T, Spindle 93, 5 rpm  
**Product form** : O/W – Cold production

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water	Aqua	30.10	several
	Optiphen BSB-W	Benzyl Alcohol, Aqua, Sodium Benzoate, Potassium Sorbate	1.00	Ashland
	Glycerin	Glycerin	5.00	several
	Clearogel SG	Sclerotium Gum	0.30	MMP
	Keltrol CG-SFT	Xanthan Gum	0.30	CP Kelco
2	VASLight	Undecane, Tridecane, Hydrogenated Olive Oil Unsaponifiables, Coco-Caprylate/Caprate	20.00	EFB Biotek
	Lipex SheaSolve	Shea Butter Ethyl Esters	20.00	AAK
	GSOLight	Vitis Vinifera (Grape) Seed Oil	19.80	EFB Biotek
	Sisterna SP70-C*	Sucrose Stearate	3.00	Sisterna
	Dermofeel Toco 70 Non-Gmo	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.20	Dr. Straetmans
	Argan Infusion (240046)	Parfum	0.30	Luzi
3	Citric Acid (10% Aq. Sol.)	Citric Acid	q.s.	several

\* Alternative grade: [Sisterna PS750-C](#) (INCI: [Sucrose Palmitate](#)). Viscosity: 17.200 mPa.s

### Production method

1. Disperse the Clearogel SG and Xanthan Gum into the glycerin while stirring.
2. Add the dispersion (1) into the water with preservative while stirring with a high shear mixer for 10 minutes.
3. Mix (2) in given order and homogenise until Sisterna SP70-C is well dispersed into the oil.
4. Add (2) into (1) while homogenising.
5. Adjust pH with (3) if necessary.



## FORMULATION INFORMATION

### CE.005 Serum Foundation

A natural, cold process and caring colour cosmetics emulsion which feels gentle and light on the skin. Sisterna® sucrose esters provide skin moisturisation and an excellent skin feel.

# CE.005

## Serum Foundation

**ID** : Cold emulsification / CE.005  
**pH-value** : 5.8  
**Viscosity** : 5.320 mPa.s Brookfield DV2T, Spindle 91, 5 rpm  
**Product form** : O/W – Cold production

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin Xilogel HS Actigum VSX 20	Glycerin Tamarindus Indica Seed Polysaccharide Sclerotium Gum, Xanthan Gum	3.00 0.25 0.30	several Indena Cargill
2	Deionised Water Cutiguard CLR™  Disodium EDTA Euxyl K 712 Effisin PG	Aqua Betaine, Sucrose, Hydrolyzed Rhodophyceae Extract, Aqua Disodium EDTA Aqua, Sodium Benzoate, Potassium Sorbate Pentylene Glycol	59.55 3.00  0.20 1.00 3.28	several CLR  several Ashland Ashland
3	Colorona Oriental Beige	Mica, Titanium Dioxide, Iron Oxide	1.00	Merck
4	Sistema SP70-C Sistema PS750-C Apricot Kernel Oil Dermofeel Toco 70 non GMO  EV - Olive Squalene Lipex PreAct VS - Olive Squalane VAS Light - Veg. Alt. to Highly Volatile Silicone	Sucrose Stearate Sucrose Palmitate Prunus Armeniaca (Apricot) Kernel Oil Tocopherol, Helianthus Annuus (Sunflower) Seed Oil Squalene Canola Oil Squalane Undecane, Tridecane, Hydrogenated Olive Oil Unsaponifiables, Coco-Caprylate/Caprates	4.00 1.00 6.00 0.20  2.50 2.50 5.00 4.00	Sistema Sistema several Evonik  EFP Biotek AAK EFP Biotek EFP Biotek
5	Unipure White LC981 Unipure Yellow LC182 Unipure Red LC381 Unipure Black LC989 Smooth Wildrose 500354-A	CI 77891 CI 77492 CI 77491 CI 77499 Parfum	2.50 0.30 0.10 0.02 0.30	Sensient Sensient Sensient Sensient Luzi

### Production method

1. Premix the Actigum VSX 20 and Xilogel HS into the glycerin (1).
2. Disperse the premix (1) in the aqueous phase (2) while homogenising for 20 minutes.
3. Add the pigment (3) to phase (1+2) and homogenise.
4. Mix the oil phase (4) in given order and homogenise.

# Sucrose esters for gel-to-milk (concentrated emulsion technology)



# Sucrose esters for gel-to-milk concepts (concentrated emulsion technology)



Concentrated emulsion technology for gel-to-milk concepts Sisterna® sucrose esters with a high HLB value are recommended for the development of oil-in-glycerin (O/G) concentrated emulsions, with the aspect of an oil gel turning into milk when diluted with water upon use.

Advised products:

- Sisterna SP70-C
- Sisterna PS750-C
- Sisterna L70-C (in combination with SP70-C or PS750-C)

Additional concept information:

- The optimum ratio of oil/glycerin is between 30/70 and 60/40
- To decrease the viscosity, the oil phase can be reduced to 30% as a maximum
- Combine Sisterna SP70-C or Sisterna PS750-C with Sisterna L70-C as an alternative to decrease viscosity
- Standard homogenisation equipment is used
- Transparent emulsions can be obtained by matching refractive indices of oil and glycerin phase
- Best emulsion stability is obtained with vegetable oils, caprylic/capric triglyceride

## FORMULATION INFORMATION

### GE.006 Good Night Facial Cleanser

A facial cleanser that turns into a milk on the skin when in contact with water. Combining Sisterna SP70-C and Sisterna L70-C gives a lower viscosity which makes it easier to apply on the designated area. Washing of the gel, turning into a milk, gives a velvet-like after feel on the skin.

# GE.006

## Good Night Facial Cleanser

**ID** : Gel-to-milk / GE.006  
**pH-value** : Not Applicable  
**Viscosity** : 35.000 mPa.s Brookfield DV2T, Spindle 95, 5 rpm  
**Water activity ( $a_w$ )** : 0,44  
**Product form** : Gel-to-milk

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99%	Glycerin	31.20	several
	Sisterna SP70-C	Sucrose Stearate	1.00	Sisterna
	Sisterna L70-C	Aqua, Sucrose Laurate, Alcohol	2.50	Sisterna
	Deionised water	Aqua	5.00	several
2	Caprylic/Capric Triglyceride	Caprylic/Capric Triglyceride	60.00	several
	Natural Care (342791-A)	Parfum	0.30	Luzi

### Production method

1. Disperse Sisterna SP70-C into the glycerin. Add other ingredients of (1) in given order.
2. Add (2) to (1) very slowly while homogenising.

Formulation prepared via concentrated emulsification procedure.

## FORMULATION INFORMATION

### GE.014 Purifying Clay-to-Milk Mask

A mask containing 20% of green clay which is easily rinsed off afterwards. The clay mask forms a milk when in contact with water, creating a nice surprise effect. Afterwards a silky soft skin feel will be experienced.



# GE.014

## Purifying Clay-to-Milk Mask

**ID** : Gel-to-milk / GE.014  
**pH-value** : N/A  
**Viscosity** : 651.000 mPa.s Brookfield DV2T, Spindle 95, 5 rpm  
**Product form** : Gel-to-milk

	<b>Ingredient</b>	<b>INCI-name</b>	<b>% w/w</b>	<b>Supplier</b>
1	Glycerin 99% Sisterna SP70-C	Glycerin Sucrose Stearate	38.00 2.00	several Sisterna
2	VS - Olive Squalane Apricot Oil VAL - Vegetable Alternative to Lanolin  Jojoba Oil Tocomix L70-IP	Squalane Prunus Armeniaca (Apricot) Kernel Oil Butyrospermum Parkii (Shea) Butter, Glyceryl Rosinate, Olea Europaea (Olive) Oil Unsaponifiables Simmondsia Chinensis (Jojoba) Seed Oil Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	5.00 12.50 9.00  12.40 0.10	EFB Biotek several EFB Biotek  several Jan Dekker
3	Vibrant Energy 261236-A Green Clay ER	Parfum Illite	1.00 20.00	Luzi Alban Muller

### Production method

1. Disperse Sisterna SP70-C into the glycerin (1) and heat up to 70°C.
2. Mix the ingredients of the oil phase (2) in given order and heat up to 75°C.
3. Add (2) to (1) slowly while homogenising.
4. Cool down to 35°C and add the ingredients of (3) to (1+2) while stirring.

Formulation prepared via concentrated emulsification procedure.

## FORMULATION INFORMATION

### GE.015 Delicate Sandy Scrub

Gel-to-milk formulations with a high viscosity are a perfect basis for an exfoliant scrub. In this case a fine and sand-like scrub particle has been dosed giving a gentle scrub sensation. The combination of the subtle scrub experience and the typical skin feel of a gel-to-milk formulation creates a silky soft after-feel.

# GE.015

## Delicate Sandy Scrub

**ID** : Gel-to-milk / GE.015  
**pH-value** : N/A  
**Viscosity** : 244.400 mPa.s Brookfield DV2T, Spindle 94, 5 rpm  
**Product form** : Gel-to-milk

	<b>Ingredient</b>	<b>INCI-name</b>	<b>% w/w</b>	<b>Supplier</b>
1	Glycerin Sisterna SP70-C	Glycerin Sucrose Stearate	30.00 2.00	several Sisterna
2	VS - Olive Squalane Lipex Preact GSOLight VAS - Vegetable Alternative to Silicone Organic Jojoba Oil Refined	Squalane Canola Oil Vitis Vinifera (Grape) Seed Oil Hydrogenated Ethylhexyl Oliviate, Hydrogenated Olive Oil Unsaponifiables Simmondsia Chinensis (Jojoba) Seed Oil	5.00 12.00 20.00 12.00 12.00	EFB Biotek AAK EFB Biotek EFB Biotek several
3	Matcha Infusion 354261-A Phytpeel Green Rhyolite 300	Parfum Pumice, Shellac, CI 77288	1.00 6.00	Luzi GreenPhyt

### Production method

1. Disperse Sisterna SP70-C into the glycerin (1) and heat up to 70°C.
2. Mix the ingredients of the oil phase (2) in given order and heat up to 75°C.
3. Add (2) to (1) slowly while homogenising.
4. Cool down to 35°C and add the ingredients of (3) to (1+2) while stirring.

Formulation prepared via concentrated emulsification procedure.

# Sucrose esters for spray/wipe and serum concepts (concentrated emulsion technology)



# Sucrose esters for spray/wipe and serum concepts (concentrated emulsion technology)



## Concentrated emulsion technology for spray and wipe concepts

Thin liquid oil-in-water emulsions with very small droplet sizes of 0.3 micrometer can be obtained when producing via a simple intermediate concentrated oil-in-glycerin (O/G) emulsification step. The O/G emulsion is then diluted with water to a final spray or wipe formulation.

Advised products:

- Sisterna SP70-C
- Sisterna PS750-C

Additional concept information:

- The optimum ratio of oil/glycerin is 50/50
- Standard homogenisation equipment is used
- After emulsification the emulsion is diluted with water containing a stabiliser

## Serum formulations

Due to the very small droplet sizes of 0.3 micrometer, this is also an excellent production method for making serums with a high skin penetration. The serums can require a higher viscosity than the spray and wipe concepts.

Additional concept information:

- Equal production method compared to making spray/wipe emulsions
- Increasing the intermediate oil-in-glycerine phase and reducing the water phase increases the viscosity needed for a serum
- By selecting the right hydrocolloids, viscosity can be increased further

## FORMULATION INFORMATION

### SE.008 Conditioning Spray

With an oil-in-glycerin intermediate phase, sprayable formulations can be made without using ethoxylated emulsifiers. Stable emulsions with oil droplets of 0.3 micrometer are made with an oil concentration as low as 5%.

# SE.008

## Conditioning Spray

**ID** : Spray & Wipe / SE.008  
**pH-value** : 5.46  
**Viscosity** : 2.200 mPa.s Brookfield DV2T, Spindle 93, 5 rpm  
**Product form** : O/W Spray

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99% Sisterna SP70-C	Glycerin Sucrose Stearate	5.00 1.50	several Sisterna
2	VAVSLight  Relaxed Music 354053-C Tocomix L70-IP	Dodecane, Hydrogenated Olive Oil Unsaponifiables, Coco-Caprylate/Caprata Parfum Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	5.00  0.30 0.10	EFB Biotek  Luzi Jan Dekker
3	Deionised Water Avicel PC611 Wasabi Flavone	Aqua Microcrystalline Cellulose, Cellulose Gum Butylene Glycol, Wasabia Japonica Leaf Extract	85.10 1.50 0.50	several FMC Biopolymer TriBeauté
4	Euxyl K 712 Citric Acid (10% Aq. Sol.)	Sodium Benzoate, Potassium Sorbate, Aqua Citric Acid	1.00 q.s.	Ashland several

### Production method

1. Disperse Sisterna SP70-C into the glycerine (1).
2. Mix ingredients of (2) in given order.
3. Add (2) to (1) and homogenise with a high shear mixer for 1 minute.
4. Add Avicel PC611 to the water of (3) and shear for 10 minutes with a high shear mixer.
5. Add oil-in-glycerin emulsion (1+2) to (3) while mixing.
6. Add (4) and adjust pH 6,5 with Citric Acid if necessary.

Formulation prepared via concentrated emulsification procedure.

## FORMULATION INFORMATION

### SE.009 Nourishing Body Spray

Sprayable formulations with an oil phase of 12% can be obtained by producing with an oil-in-glycerin intermediate phase. No ethoxylated emulsifiers need to be used and oil droplets of 0.3 micrometer are created. Having a higher oil phase will mean that the lotion will be a little more viscous, but depending on the spray packaging it can be a perfectly sprayable formulation.



# SE.009

## Nourishing Body Spray

**ID** : Spray & Wipe / SE.009  
**pH-value** : 5.41  
**Viscosity** : 3.000 mPa.s Brookfield DV2T, Spindle 91, 5 rpm  
**Product form** : O/W Spray

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99% Sisterna SP70-C	Glycerin Sucrose Stearate	8.00 2.00	several Sisterna
2	Olive Oil	Olea Europaea (Olive) Fruit Oil	4.00	several
	Almond Oil	Prunus Amygdalus Dulcis (Sweet Almond) Oil	4.00	several
	Joboba Oil	Simmondsia Chinensis (Jojoba) Oil	4.00	several
	Dermofeel Toco 70 Non-GMO	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.20	Dr. Straetmans
	CAMOMILE 338572-A	Parfum	0.30	Luzi
3	Deionised Water	Aqua	75.00	several
	Avicel PC611	Microcrystalline Cellulose, Cellulose Gum	1.50	FMC Biopolymer
4	Euxyl PE9010	Phenoxyethanol, Ethylhexylglycerin	1.00	Ashland
	Citric Acid (10% Aq. Sol.)	Citric Acid	q.s.	several

### Production method

1. Disperse Sisterna SP70-C into glycerin (1).
2. Mix ingredients of (2) separately.
3. Add (2) to (1) and homogenise with a high shear mixer for 1 minute.
4. Add Avicel PC611 to the water of (3) and shear for 10 minutes with a high shear mixer.
5. Add oil-in-glycerin emulsion (1+2) to (3) while mixing.
6. Add (4) and adjust pH 6,5 with Citric Acid if necessary.

Formulation prepared via concentrated emulsification procedure.

## FORMULATION INFORMATION

### SE.011 Gel-Lotion Eye Serum

Making an emulsion with an oil-in-glycerin intermediate emulsification step enables the formation of oil droplet sizes of 0.3 micrometer. This production method is excellent for dosing oil actives which will be boosted, enabling a better skin penetration, creating extremely effective serums.

# SE.011

## Gel-Lotion Eye Serum

**ID** : Serum / SE.011  
**pH-value** : 6.13  
**Viscosity** : 20.400 mPa.s Brookfield DV2T, Spindle 94, 5 rpm  
**Product form** : O/W Serum

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99% Sisterna SP70-C*	Glycerin Sucrose Stearate	8.00 2.00	several Sisterna
2	MOT - Maxi Olive 3T-Action	Olea Europaea (Olive) Oil Unsaponifiables, Tocopherol	3.00	EFB Biotek
	Active Lipo Extract Maqui	Helianthus Annuus (Sunflower) Seed Oil, Aristotelia Chilensis Fruit Extract, Tocopherol	3.00	Phenbiox
	Active Lipo Extract Olivo Foglie	Helianthus Annuus (Sunflower) Seed Oil, Olea Europaea Leaf Extract, Tocopherol	3.00	Phenbiox
	Active Lipo Extract The Verde	Helianthus Annuus (Sunflower) Seed Oil, Camellia Sinensis Leaf Extract, Tocopherol	3.00	Phenbiox
	Tocomix L70-IP	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.10	Jan Dekker
3	Deionised Water	Aqua	75.60	several
	Clearogel SG ECO	Sclerotium Gum	1.00	MMP
	Keltrol CG SFT V	Xanthan Gum	0.30	CP Kelco
	Euxyl PE9010	Phenoxyethanol, Ethylhexylglycerin	1.00	Ashland
4	Citric Acid (20%)	Citric Acid	q.s.	several

\* Alternative grade: [Sisterna PS750-C](#) (INCI: [Sucrose Palmitate](#)). Viscosity: +/- 17.000 mPa.s

### Production method

1. Disperse Sisterna SP70-C into the glycerin.
2. Add (2) to (1) and homogenise with a high shear mixer for 1 minute.
3. Slowly add the Clearogel SG ECO and Keltrol CG SFT-V to the blend of water with preservative under medium shear. Then mix at the highest possible shear for 10 minutes.
4. Add oil in glycerin emulsion (1+2) to (3) while mixing.
5. Adjust pH if necessary with (4).

Formulation prepared via concentrated emulsification procedure.

# Sucrose esters for mild cleansing



# Sucrose esters for mild cleansing



## Water based systems

In the development of body and hair cleansing formulations non-ionic surfactants are added to blends of traditional foaming anionic and amphoteric surfactants to improve mildness. Sisterna® sucrose esters are non-ionic and EO-free surfactants and their interesting and innovative properties make them excellent candidates for this type of products.

Advised products:

- Sisterna L70-C
- Alternatively Sisterna PS750-C or Sisterna SP70-C for non-transparent systems

Benefits of Sisterna® sucrose esters in mild cleansing:

- Reduce the irritating properties of anionic surfactants
- Considerably improve the sensorial properties of the formulations, in terms of skin feel and skin mildness
- Emulsify lipids into the cleansing formulation
- Contribute to the conditioning effect in shampoo and conditioners
- Increase viscosity at lower electrolyte concentrations

## FORMULATION INFORMATION

### MC.013 Micellar Cleansing Water

Sisterna L70-C is very mild for the skin and it also reduces the irritation level of other surfactants. Combining it with cocamidopropyl betaine gives good cleansing properties while ensuring skin mildness.

# MC.013

## Micellar Cleansing Water

**ID** : Mild cleansing / MC.013  
**pH-value** : 6.40  
**Viscosity** : 40 mPa.s Brookfield DV2T, Spindle 91, 5 rpm  
**Product form** : EO-free rinse-off

	Ingredient	INCI-name	% w/w	Supplier
1	Sisterna L70-C	Aqua, Sucrose Laurate, Alcohol	4.50	Sisterna
	Exoquat HC47	Cocamidopropyl Betaine	1.00	EOC Surfactants
	Zemea Propanediol	Propanediol	5.00	several
	S&M Phenoxyethanol RHC	Phenoxyethanol	0.90	Ashland
	Deionised Water	Aqua	88.60	several
2	NaOH (10% solution)	Sodium Hydroxide, Aqua	q.s.	several

### Production method

1. Mix ingredients of (1) in given order.
2. Adjust pH with (2) if necessary.

## FORMULATION INFORMATION

### MC.011 Bath Milk

A perfect formulation for making a silky soft milk bath which leaves your skin soft and cleansed.



# MC.011

## Bath Milk

**ID** : Mild cleansing / MC.011  
**pH-value** : 6.5  
**Viscosity** : 2.880 mPa.s Brookfield DV2T, Spindle 91, 5 rpm  
**Product form** : O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin (99%) Sisterna SP70-C	Glycerin Sucrose Stearate	5.00 1.50	several Sisterna
2	Olive Oil Almond Oil Jojoba Oil Dermofeel Toco 70 Non-GMO  CAMOMILE 338572-A	Olea Europaea (Olive) Fruit Oil Prunus Amygdalus Dulcis (Sweet Almond) Oil Simmondsia Chinensis (Jojoba) Oil Tocopherol, Helianthus Annuus (Sunflower) Seed Oil Parfum	2.00 2.00 1.00 0.25  0.30	several several several Dr. Straetmans  Luzi
3	Deionised Water Avicel PC611	Aqua Microcrystalline Cellulose, Cellulose Gum	85.45 1.50	several FMC Biopolymer
4	Euxyl PE9010 Citric Acid (10% Aq. Sol.)	Phenoxyethanol, Ethylhexylglycerin Citric Acid, Aqua	1.00 qs	Ashland several

### Production method

1. Disperse Sisterna SP70-C into the glycerin (1).
2. Mix ingredients of (2) separately.
3. Add (2) to (1) and homogenise with a high shear mixer for 1 minute.
4. Add Avicel PC611 to the water of (3) and shear for 10 minutes with a high shear mixer.
5. Add oil-in-glycerin emulsion (1+2) to (3) while mixing.
6. Add (4) and adjust pH 6,5 with Citric Acid if necessary.

Formulation prepared via concentrated emulsification procedure.

# Sucrose esters in anhydrous systems



## Sucrose esters in anhydrous systems



Sisterna A10E-C is a special sucrose ester grade, obtained by the esterification of sucrose with stearic, palmitic fatty acids and acetic acid. Due to its high degree of esterification, Sisterna A10E-C no longer has surface active properties, resulting in a completely different behaviour compared to all other Sisterna grades. Sisterna A10E-C can be considered as a so called 'sugar wax', which can be used as lipidic phase modifier to influence the rheological and sensorial properties of oils and natural butters.

Advised products:

- Sisterna A10E-C as lipidic phase modifier

Benefits of Sisterna A10E-C in anhydrous systems:

- Thickens or gels many oils as well as silicone oils
- Helps reducing blooming and sweating of sticks when oils that are easily thickened by Sisterna A10E-C are dosed inside the formulation
- Improves the sensorial properties
- Improves cohesion of sticks
- Reduces brittleness of sticks
- Excellent binding properties in compact powders

## FORMULATION INFORMATION

### AS.006 Stylish Viking Beard Wax

A good spreadable wax because of the addition of Sisterna A10E-C which lets the formula melt near skin temperature. It also softens the hair while styling it and is very caring for the scalp.

# AS.006

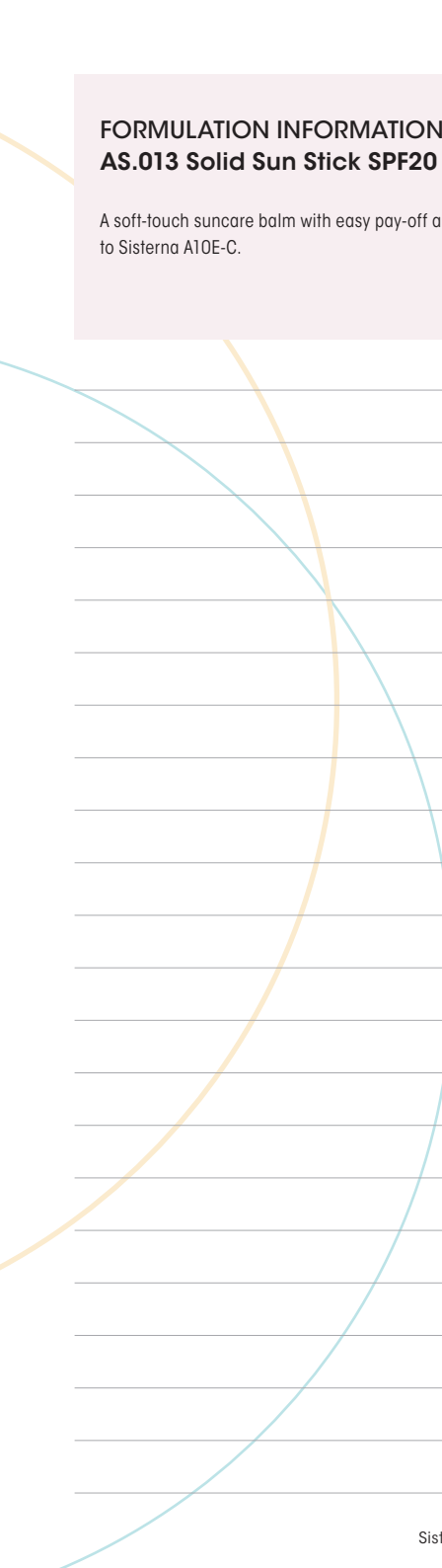
## Stylish Viking Beard Wax

**ID** : Anhydrous / AS.006  
**pH-value** : Not applicable  
**Viscosity** : Wax/Paste  
**Product form** : Anhydrous balm

	<b>Ingredient</b>	<b>INCI-name</b>	<b>% w/w</b>	<b>Supplier</b>
1	Cupuacu Butter Refined	Theobroma Grandiflorum Seed Butter	14.00	Jan Dekker
	Castor Oil Refined	Ricinus Communis (Castor) Seed Oil	45.70	Jan Dekker
	Sisterna A10E-C	Sucrose Tetraesterate Triacetate	5.00	Sisterna
	Kahlwax 8104	Cera Alba	8.00	Kahlwax
	Kahlwax 6720	Shorea Robusta Resin, Helianthus Annuus (Sunflower) Seed Oil, Tocopherol	15.00	Kahlwax
	Octyldodecanol	Octyldodecanol	5.00	BASF
	Dermofeel Toco 70 non-GMO	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.50	Dr. Straetmans
2	St. Johns Worth Oil	Olea Europaea (Olive) Fruit Oil, Hypericum Perforatum Flower/Leaf/Stem Extract, Tocopherol	5.00	CLR
	Eldew PS-203 R	Phytosteryl/Octyldodecyl Lauroyl Glutamate	0.30	Ajinomoto
3	Vanacco (351830-F)	Parfum	1.50	Luzi

### Production method

1. Prepare (1), heat to 80 °C.
2. Add (2) and (3) while stirring.
3. Fill the homogenous oil compound into the final packaging.
4. Cool down to room temperature.



## FORMULATION INFORMATION

### AS.013 Solid Sun Stick SPF20

A soft-touch suncare balm with easy pay-off and excellent oil absorption, providing a non-greasy, dry skin feel thanks to Sisterna A10E-C.

# AS.013

## Solid Sun Stick SPF20

**ID** : Anhydrous / AS.013  
**pH-value** : N/A  
**Viscosity** : N/A  
**Product form** : Anhydrous stick

	<b>Ingredient</b>	<b>INCI-name</b>	<b>% w/w</b>	<b>Supplier</b>
1	Candelilla Wax	Euphorbia Cerifera (Candelilla) Wax	3.50	Koster Keunen
	HSFO - Vegetable	Hydrogenated Sunflower Seed Oil	8.00	EFP Biotek
	Alternative to Beeswax 2			
	VAB - Vanilla Butter	Prunus Amygdalus Dulcis (Sweet Almond) Oil, Helianthus Annuus (Sunflower) Seed Oil, Hydrogenated Vegetable Oil, Vanilla Planifolia Fruit Oil	26.00	EFP Biotek
	Caprylic Capric Triglyceride	Caprylic Capric Triglyceride	20.40	several
	VAS - Vegetable Alternative to Silicone	Hydrogenated Ethylhexyl Oliviate, Hydrogenated Olive Oil Unsaponifiables	15.00	EFP Biotek
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	10.00	Sisterna
	Eusolex T-AVO	Titanium Dioxide, Silica	8.00	Merck
	Ronacare Zinc Oxide	Zinc Oxide	4.00	Merck
	RonaFlair Flawless	Silica, Titanium Dioxide (CI 77891), Iron Oxides (CI 77491)	5.00	Merck
	Dermofeel Toco 70 Non-GMO	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.10	Dr. Straetmans

### Production method

1. Mix the ingredients at 75°C in the listed order.
2. Heat until completely transparent and homogeneous.
3. Pour directly into suitable packaging while molten.
4. Cool down slowly to room temperature. Final viscosity will be built up after 48h.

## FORMULATION INFORMATION

### AS.012 Solid Face Serum

Silky soft waterless serum with a good pay-off and oil absorption, providing a well-liked and dry skin feel. A perfect system for dosing oil actives and creating a long lasting anhydrous serum.



# AS.012

## Solid Face Serum

**ID** : Anhydrous / AS.012  
**pH-value** : N/A  
**Viscosity** : N/A  
**Product form** : Anhydrous stick

	Ingredient	INCI-name	% w/w	Supplier
1	Jasmin Butter	Prunus Amygdalus Dulcis (Sweet Almond) Oil, Hydrogenated Vegetable Oil, Jasminum Officinale (Jasmine) Oil	27.00	EFP Biotek
	Candelilla Wax	Euphorbia Cerifera (Candelilla) Wax	2.50	Koster Keunen
	Vegetable Alternative to Beeswax #2	Hydrogenated Sunflower Seed Oil	7.40	EFP Biotek
	Caprylic Capric Triglyceride	Caprylic Capric Triglyceride	35.00	several
	VAS - Vegetable	Hydrogenated Ethylhexyl Olivat	15.00	EFP Biotek
	Alternative to Silicone	Hydrogenated Olive Oil Unsaponifiables		
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	10.00	Sisterna
	Dermofeel Toco 70 Non-GMO	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.10	Dr. Straetmans
	Cutibiome CLR	Octyldodecanol, Leptospermum Scoparium Branch/Leaf Oil, Piper Nigrum (Pepper) See Extract, Magnolia Officinalis Bark Extract	3.00	CLR

### Production method

1. Mix the ingredients at 80°C in the listed order.
2. Heat until completely transparent and homogeneous.
3. Pour directly into a suitable packaging while molten.
4. Cool down slowly to room temperature. Final viscosity will be built up after 48h.

## FORMULATION INFORMATION

### AS.009 Lipstick Milano

Sisterna A10E-C makes the lipstick stronger but also more bendable, making it less easy to break. The amount of waxes with a high melting point can be reduced and sensorial properties are improved. It also improves the spreadability, because Sisterna A10E-C enables the formula to melt near skin temperature. Furthermore it helps reducing blooming and sweating of sticks. Sisterna SP10-C provides more gloss and creaminess.

# AS.009

## Lipstick Milano

**ID** : Anhydrous / AS.009  
**pH-value** : -  
**Viscosity** : -  
**Product form** : Anhydrous stick

	<b>Ingredient</b>	<b>INCI-name</b>	<b>% w/w</b>	<b>Supplier</b>
1	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	10.00	Sisterna
	Sisterna SP10-C	Sucrose Polystearate	1.00	Sisterna
	Candelilla Wax	Euphorbia Cerifera (Candelilla) Wax	4.50	Koster Keunen
	Carnauba Wax T1	Copernicia Cerifera (Carnauba) Wax	2.00	Koster Keunen
	Permulgin 3280	Ozokerite	4.50	Koster Keunen
	Kesterwax K82 P	Synthetic Beeswax	3.00	Koster Keunen
	Sunflower Wax	Helianthus Annuus (Sunflower) Seed Wax	4.20	Koster Keunen
	Witarix MCT 60-40	Caprylic/Capric Triglyceride	25.15	IOI Oleo
	Isostearyl Isostearate	Isostearyl Isostearate	25.00	several
	TeCero-Wachs®30332cs	Hydrogenated Microcrystalline Wax, Synthetic Wax	6.29	TH.C.TROMM
2	Dermofeel Toco 70	Tocopherol	0.10	Dr. Straetmans
	COD 8001	Castor (Ricinus Communis) Oil, CI 15850	2.45	Sun Chemical
	COD 8003	Castor (Ricinus Communis) Oil, CI 15850	0.55	Sun Chemical
	COD 8009	Castor (Ricinus Communis) Oil, CI 19140	3.40	Sun Chemical
	COD 8008	Castor (Ricinus Communis) Oil, CI 77891	7.60	Sun Chemical
3	Berry Lips 503980	Parfum	0.25	Luzi

### Production method

1. Before starting: spray silicone release spray in mould and put in oven at 45°C.
2. Weigh (1) in beaker and put in water bath to melt to 85°C.
3. Add (2) into (1) and homogenise.
4. Then add (3) and stir for 1 minute.
5. Take mould out of the oven and pour the mixture into the mould.
6. Allow to cool down for 20 minutes at room temperature.
7. Take the top part of the mixture out of the mould with the scraping spatula.
8. Put the mould in the freezer for 20 minutes.
9. Put the lipsticks in the cases.



## FORMULATION INFORMATION

### AS.004 Natural Cream-to-Powder Blush

Sisterna A10E-C makes the balm stronger but also more bendable, making it less easy to break. The amount of waxes with a high melting point can be reduced and sensorial properties are improved. It also improves the spreadability, because Sisterna A10E-C enables the formula to melt near skin temperature. Furthermore it helps reducing blooming and sweating of sticks.

# AS.004

## Natural Cream-to-Powder Blush

**ID** : Anhydrous / AS.004  
**pH-value** : Not applicable  
**Viscosity** : Wax  
**Product form** : Anhydrous stick

	Ingredient	INCI-name	% w/w	Supplier
1	Biophytosebum Organic	Decyl Olive Oil Esters (and) Squalene	31.50	Sophim
	Cetiol Ultimate	Undecane (and) Tridecane	9.00	BASF
	Dermofeel Sensolv	Isoamyl Laurate	12.50	Dr. Straetmans
	Silica Microbead P 1500	Silica	5.00	Kowa
	Candelilla Wax	Euphorbia Cerifera (Candelilla) Wax	10.00	Koster Keunen
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	10.00	Sisterna
2	Hombitan AFDC	Titanium Dioxide	11.40	Huntsman
	Unipure Red LC388	CI 77491	1.00	Sensient
	Unipure Pink LC583	CI 77742	3.80	Sensient
	Unipure Pink LC589	CI 77007	3.80	Sensient
3	Dermofeel Toco 70 Non-GMO	Tocopherol, Helianthus Annuus (Sunflower)	1.00	Dr. Straetmans
	352300 PURPLE LILIES	Seed Oil Parfum	1.00	several

### Production method

1. Weigh (1) in beaker and put in water bath to melt to 85°C.
2. Add (2) into (1) and homogenise.
3. Then add (3) and stir for 1 minute.
4. Pour the mixture into the packaging.
5. Allow to cool down to room temperature.



[www.sisterna.com](http://www.sisterna.com)

[info@sisterna.com](mailto:info@sisterna.com)