# Formulations 2023 Inspiration Guide



#### 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** to find out more about Sisterna<sup>®</sup> 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	CONTEND.	Aspo 2.0123-09-100-00		Q	$\bigotimes$
L70-C		COSMOS APPROVED	A CONTRACTOR OF	Aspo Aspo Meso		Q	$\bigotimes$
SP70-C		COSMOS	CONTEND.	<b>ASPO</b> 2 0123 09 100 00		${\bf i}$	${\bf i}$
SP50-C		COSMOS APPROVED	CONTEND.	<b>Aller</b> <b>Aspo</b> <b>MIXED</b> 2.0123-09-100-00		Ø	${\bf i}$
SP30-C		COSMOS	CONTEND.	<b>Alline</b> <b>Aspo</b> <b>MIXED</b> 2:0123:09-100:00		${\bf i}$	${\bf \bigotimes}$
SP10-C		COSMOS APPROVED	CONTROL OF	<b>Aller</b> <b>Aspo</b> <b>MIXED</b> 2.0123-09-100-00		Q	${\bf i}$
SP01-C		COSMOS APPROVED	CONTEND.	123 09-100 00		${ { {                                $	$\bigotimes$
A10E-C				400 TAInag, 70 100 100 100 100 100 100 100 1		${\bf i}$	$\bigotimes$

### 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 Tetrastearate 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	0		•	•	•			
Co-emulsifier W/O								
Co-surfactant/ mild cleanser	0	•	0					
Lipidic phase modifier								•
Selective anti- microbial activity			•					
Application con	cepts							
Main emulsifier			•	٠				
Co-emulsifier O/W and W/O	0		•			•	•	
Cold emulsifier	0		•					
Gel-to-milk	0							
Spray/wipe & serum emulsions	0		•					
Mild cleansing	0		0					
Anhydrous systems						•	•	•

• First choice

O Good alternative



Sucrose esters as main O/W emulsifier system

ME.010 Thai Wellness Body Butter ME.012 African Nourishing Lotion ME.015 ZnO Sun Cream SPF30 ME.016 Mild After Sun Cream



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

CoE.008 Las Vegas Protection Cream CoE.009 Arctic Protection Cream



Sucrose esters as cold emulsifier for O/W

CE.003 Lagom Lotion Sweden CE.004 Cold Process Moisturising Cream CE.005 Serum Foundation



Sucrose esters for gelto-milk (concentrated emulsion technology)

GE.011 Hamam Argan Oil Gel GE.013 Oil-Gel to Milk Cleanser



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

SE.006 Spanish Eyes Serum SE.007 Moisturising Spray



Sucrose esters for mild cleansing

MC.006 Traveller Cleansing Powder MC.008 Siberian Cleansing Cream MC.010 2-Phase Shower Foam MC.011 Bath Milk



Sucrose esters in anhydrous systems AS.004 Natural Cream-to-Powder Blush AS.009 Lipstick Milano AS.010 Californian Gold Rush Eye Shadow AS.006 Stylish Viking Beard Wax AS.012 Solid Face Serum AS.013 Solid Sun Stick SPF20

# 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 silicon 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.010 Thai Wellness Body Butter

A rich body butter which contains more than 20% of butters and other solid ingredients. Sisterna SP30-C and Sisterna SP70-C will help to remove the greasiness of these butters and solids. This also increases the spreadability and gives a lighter skin feel.

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# ME.010 Thai Wellness Body Butter

ID	: Main Emulsifier / ME.010
pH-value	: 5.3
Viscosity	: 83.000 mPa.s Brookfield DV2T, Spindle 93, 5 rpm
Product form	: O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Glycerin 99% Keltrol CG-SFT Amigel Fruitliquid Pineapple PB	Aqua Glycerin Xanthan Gum Sclerotium Gum Glycerin, Aqua, Ananas Sativus Fruit Extract	46.85 2.50 0.30 0.50 2.00	several several CP Kelco Alban Muller Crodarom
2	Sisterna SP70-C Sisterna SP30-C Jasmine Butter Lime Butter Coconut Oil Caprylic/Capric Triglyceride Rice Serum Cetearyl Alcohol Tocomix L70-IP VP 67	Sucrose Stearate Sucrose Distearate Prunus Amygdalus Dulcis (Sweet Almond) Oil, Hydrogenated Vegetable Oil, Jasminum Officinale Oil Citrus Aurantifolia (Lime) Seed Oil, Hydrogenated Vegetable Oil Cocos Nucifera (Coconut) Oil Caprylic/Capric Triglyceride Oryza Sativa (Rice) Bran Oil, Phytosterols, Olea Europaea (Olive) Oil Unsaponifiables, Tocopherol Cetearyl Alcohol Tocopherol, Helianthus Annuus Seed Oil Ricinus Communis (Castor) Seed Oil, Hydrogenated Castor Oil, Copernicia Cerifera (Carnauba) Wax	2.00 2.00 9.00 6.00 6.00 7.50 3.00 0.05 2.00	Sisterna Sisterna EFP Biotek EFP Biote several EFP Biotek several Jan Dekker EFP Biotek
3	Euxyl K 830 Malaysian Longan	Phenoxyethanol, Ethylhexylglycerin, Octenidine HCl Parfum	1.00 0.30	Schülke Luzi
4	Citric Acid (20% Aq. Sol.)	Citric Acid, Aqua	q.s.	several

#### **Production method**

- 1. Add the Amigel and Keltrol CG-SFT to (1) while stirring. Hydrate for 10 minutes until fully incorporated.
- 2. Heat (1) and (2) to 70°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. Adjust pH with (4) if necessary.

Formulation developed by Matis Specialties (Belgium) - www.matisspecialties.be

#### FORMULATION INFORMATION ME.012 African Nourishing 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 velvet skin feel created by using sucrose esters is enhanced by this LLC emulsions, also providing a higher stability and a controlled release of actives.

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## ME.012 African Nourishing Lotion

ID	: Main Emulsifier / ME.012
pH-value	: 5.2
Viscosity	: 7.000 mPa.s Brookfield DV2T, Spindle 93, 5 rpm
Product form	: O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Glycerin 99% Xilogel HS Actigum VSX 20	Aqua Glycerin Tamarindus Indica Seed Polysaccharide Sclerotium Gum, Xanthan Gum	68.30 4.00 0.25 0.30	several several Indena Cargill
2	Sisterna SP30-C Sisterna SP70-C Cetearyl Alcohol Baobab Oil Manketti Oil Tocopherol oil CLR	Sucrose Distearate Sucrose Stearate Cetearyl Alcohol Adansonia Digitata Seed Oil Schinziophyton Rautanenii Kernel Oil Glycine Soja (Soybean) Oil, Tocopherol	3.00 1.00 2.00 9.00 9.00 1.25	Sisterna Sisterna several Sigma Oil Seeds Zambezi Organics CLR
3	Euxyl K701 Rooibos Herbasol Extract Arty Nomad	Phenoxyethanol, Benzoic Acid, Dehydroacetic Acid, Ethylhexylglycerin Glycerin, Aqua, Aspalathus Linearis Extract Parfum	1.10 0.50 0.30	Schülke Lipoid Kosmetik Luzi
4	Citric Acid (20% Aq. Sol.)	Citric Acid, Aqua	q.s.	several

#### **Production method**

- 1. Heat the deionised water of (1) to 40°C.
- 2. Premix Xilogel HS and Actigum VSX 20 into the glycerin and add to the water at 40°C. Stir for 15 minutes.
- 3. Heat (1) and (2) to 70°C.
- 4. Add (2) to (1) while homogenising.
- 5. Cool down to  $40^{\circ}$ C and add (3) to (1+2) while homogenising shortly.
- 6. Adjust pH if necessary.

#### FORMULATION INFORMATION ME.015 ZnO Sun Cream SPF30

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

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# ME.015 ZnO Sun Cream SPF30

ID	: Main Emulsifier / ME.015
pH-value	: 7.35
Viscosity	: 203.000 mPa.s, Spindle 94, 5 rpm
Product form	:O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Euxyl PE 9010 Glycerin Xilogel HS Actigum VSX 20	Aqua Phenoxyethanol, Ethylhexylglycerin Glycerin Tamarindus Indica Seed Polysaccharide Sclerotium Gum, Xanthan Gum	36,00 1,00 3,00 0,25 0,30	several Ashland several Merck Cargill
2	Sisterna SP70-C Sisterna SP30-C VS - Olive Squalane Lipex PreAct Tocomix L70-IP VAS - Vegetable alternative to Silicone Caprylic Capric Triglyceride	Sucrose Stearate Sucrose Distearate Squalane Canola Oil Tocopherol, Helianthus Annuus (Sunflower) Seed Oil Hydrogenated Ethylhexyl Olivate, Hydrogenated Olive Oil Unsaponifiables Caprylic Capric Triglyceride	3.00 3.00 6,10 3,00 0,05 9,00	Sisterna Sisterna EFP Biotek AAK Jan Dekker EFP Biotek several
3	HBQP75FZS HBTNP60ZSI	Zinc Oxide, Butyloctyl Salicylate, Polyhydroxystearic Acid, Triethoxycaprylylsilane Zinc Oxide (Nano), Butyloctyl Salicylate, C12-15 Alkyl Benzoate, Polyhydroxystearic Acid, Triethoxycaprylylsilane	16,00 10,00	KOBO Products KOBO Products
4	Parfum Suncare 555828	Fragrance	0,30	Luzi

#### **Production method**

- 1. Premix the Actigum VSX 20 and Xilogel HS into the glycerin.
- 2. Add the preservative to the water phase.
- 3. Disperse the premix of glycerin in the aqueous phase while homogenising during 20 minutes at 10.000 rpm.
- 4. Heat the water phase to 75°C.
- 5. Weigh the ingredients of (2) and heat up to 75°C.
- Weigh the ingredients of (3) and add to the heated oil phase (2), homogenise shortly for 3 minutes at 10.000 rpm.
- 7. Add (2+3) to (1) while continuous homogenising.
- 8. Cool down to  $40^\circ\text{C}$  and add (4) while stirring.
- 9. Cool down to room temperature while stirring.
- 10. Adjust pH 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.

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## ME.016 Mild After Sun Cream

ID	: Main Emulsifier / ME.016
pH-value	: 5.4
Viscosity	: 12.800 mPa.s, Helipath Spindle 94, 20 rpm after 1 minute
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	Sisterna SP30-C Sisterna 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 Linoleic Acid, Linolenic Acid	2.00 2.00 9.00 6.05 7.00 5.00 5.00 0.25 1.20	Sisterna Sisterna EFP Biotek 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 Fragrance Citric Acid	3.00 0.30 qs	Rahn Luzi several

#### **Production method**

- 1. Premix the Actigum VSX 20 and Xilogel HS into the glycerin.
- Add the preservatives and the premix in the water phase whilst homogenising during 20 minutes at 10.000 rpm.
- 4. Heat the water phase to 72-75°C.
- 5. Heat the oil phase to  $70^{\circ}$ C.
- 6. Add the oil phase to the water phase whilst homogenizing at 10.000 rpm.
- 7. Cool down the emulsion to 40°C whilst stirring.
- 7. Add phase C and homogenize shortly until the ingredients are incorporated.
- 8. Cool down to room temperature whilst stirring.
- 9. Adjust pH if necessary.



### 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 silicon 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.

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# CoE.008 Las Vegas Protection Cream

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

	Ingredient	INCI-name	% <b>w/w</b>	Supplier
1	Deionised Water Dermosoft MCA Variante	Aqua Dipropylene Glycol, Caprylyl Glycol, Glyceryl Caprylate	71.47 1.00	several Dr. Straetmans
2	Disodium EDTA	Disodium EDTA	0.10	several
3	Tego Carbomer 340 FD	Carbomer	0.30	Evonik
4	CCT Oil Eusolex HMS Dermofeel BGC Parsol 340 Amisoft HS-11P(F) Sisterna SP70-C Dermofeel GSC Cetearyl Alcohol Parsol 1789 Keltrol CG-SFT Dermofeel Toco 70	Caprylic/Capric Triglyceride Homosalate Butylene Glycol Dicaprylate/Dicaprate Octocrylene Sodium Stearoyl Glutamate Sucrose Stearate Glyceryl Stearate Citrate Cetearyl Alcohol Butyl Methoxydibenzoylmethane Xanthan Gum Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	8.00 2.00 3.00 2.00 0.15 2.00 2.00 2.00 2.00 0.30 0.20	several Merck Dr. Straetmans DSM Ajinomoto Sisterna Dr. Straetmans several DSM CP Kelco Dr. Straetmans
5	NaOH (29% sol.)	Sodium Hydroxide, Water	0.28	several
6	RADICARE-GOLD	Crambe Abyssinica Seed Oil, Beta- Carotene, Xanthophylls, Tocopherol, Helianthus Annuus Seed Oil, Rosmarinus Officinalis (Rosemary) Leaf Extract	3.00	Rahn
7	Dreams Come True	Parfum	0.20	Luzi

#### **Production method**

- 1. Mix the ingredients of (1).
- 2. Add (2) to (1).
- Add (3) to the surface of (1+2). Wait until the powder is fully hydrated, mix thoroughly until completely dissolved.
- 4. Heat (1+2+3) to 70°C while stirring.

- 5. Mix the ingredients of (4) and heat to 70°C while stirring.
- 6. Add (4) to (1+2+3) and homogenise.
- 7. Cool down to  $40^{\circ}$ C while stirring gently.
- 8. Add (5, 6, 7) separately.
- 9. Cool down to room temperature while stirring.

Formulation developed by RAHN AG (Switzerland) - www.rahn-group.com

#### 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.

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## CoE.009 Arctic Protection Cream

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

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Magnesium Sulfate 7H2O Glycerin 99% Snow Algae Powder Aqua GG	Aqua Magnesium Sulfate Heptahydrate Glycerin Coenochloris Signiensis Extract, Maltodextrin, Lecithin, Aqua Glyceryl Glucoside	60.40 0.70 3.00 2.00 3.00	several several several Mibelle Gene-Chem
2	Sisterna SP01-C Sisterna A10E-C Arlacel 1690 Olive Squalane Arnica Oil CLR Probarrier CLR Olive Squalene Wax Dermofeel Toco 70 non GMO Vegetable Alternative to Lanolin	Sucrose Polystearate Sucrose Tetrastearate Triacetate Sorbitan Isostearate, Polyglyceryl-3 Polyricinoleate Squalane Glycine Soja (Soybean) Oil, Arnica Montana Flower Extract, Tocopherol Aqua, Caprylic/Capric Triglyceride, Copernicia Cerifera (Carnauba) Wax, Decyl Glucoside, Pentylene Glycol Olea Europaea (Olive) Oil unsaponifiables Tocopherol, Helianthus Annuus (Sunflower) Seed Oil Butyrospermum Parkii (Shea Butter), Glyceryl Rosinate, Olea Europaea (Olive) Oil unsaponifiables	1.50 3.00 3.00 5.00 3.00 3.00 0.50 3.50	Sisterna Sisterna Croda EFP Biotek CLR CLR EFP Biotek Dr. Straetmans EFP Biotek
3	Fragile Green Borealine Protect Euxyl K830	Parfum Glycerin, Picea Mariana Bark Extract Phenoxyethanol, Ethylhexylglycerin, Octenidine HCl	0.30 0.10 1.00	Luzi Lucas Meyer Schulke

#### **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.

# 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 Best option
- Sisterna PS750-C Good alternative

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 silicon 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.003 Lagom Lotion Sweden

Creating simple but effective formulations with a short INCI list is possible with Sisterna SP70-C. It is mild on the skin, increases moisturisation and has a great skin feel. You can also produce in an environmental friendly way as it is cold processable, while also being readily biodegradable. Perfect for making a no-nonsense cosmetic product.

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# CE.003 Lagom Lotion Sweden

ID	: Cold emulsification / CE.003
pH-value	: 4.60
Viscosity	: 5.700 mPa.s Brookfield DV2T, Helipath Spindle 92, 5 rpm
Product form	: O/W – Cold production

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99%	Glycerin	5.00	several
	Genuvisco CG131	Carrageenan	0.30	CP Kelco
	Keltrol CG-SFT	Xanthan Gum	0.30	CP Kelco
2	Deionised Water Nipaguard SCE	Aqua Sorbitan Caprylate, Propanediol, Benzoic Acid	48.80 1.30	several Clariant
3	Lipex PreAct	Canola Oil	40.00	AAK
	AvenaPlex	Avena Sativa (Oat) Kernel Extract	1.00	Oat Cosmetics
	Sisterna SP70-C	<mark>Sucrose Stearate</mark>	<b>3.00</b>	<mark>Sisterna</mark>
	Pura	Parfum	0.30	Luzi

#### **Production method**

- 1 Disperse the carrageenan and xanthan gum into the glycerin while stirring.
- 2. Add (1) into (2) while stirring.
- 3. Mix Sisterna SP70-C well into the other ingredients of (3).
- 4. Add phase (3) into phase (1+2) and homogenise for a few minutes.

Formulation developed with Nordmann Nordic (Sweden) - www.nordmann.global

#### FORMULATION INFORMATION CE.004 Cold Process Moisturising Cream

Simple and effective formulation with Sisterna SP70-C, showing which maximum 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 a cream. Adjusting the oil phase with light oils will even further improve this concept to a gentle cream. Tips and tricks to achieve the highest viscosity: take a close look at the thinning behaviour of preservatives and perfumes!

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# CE.004 Cold Process Moisturising Cream

ID	: Cold emulsification / CE.004
pH-value	: 5.22
Viscosity	: 30.500mPa.s Brookfield DV2T, Spindle 96, 20 rpm
Product form	: O/W – Cold production

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised Water Optiphen BSB-W Glycerin Clearogel SG Keltrol CG-SFT	Aqua Benzyl alcohol, Aqua, Sodium Benzoate, Potassium Sorbate Glycerin Sclerotium Gum Xanthan Gum	30.10 1.00 5.00 0.30 0.30	several Ashland several MMP CP Kelco
2	CCT Oil Sisterna SP70-C Cocooning 239283	Caprylic Capric Triglycerides Sucrose Stearate Parfum	60.00 3.00 0.30	several Sisterna Luzi

#### **Production method**

Cold Production

- 1. Disperse the Sclerotium Gum and Xanthan Gum into the glycerin while stirring.
- 2. Add the dispersion (1) into the water with preservative whilst stirring with a high shear mixer for 10 minutes.
- 3. Mix (2) in given order while stirring to homogeneous solution.
- 4. Add (2) into (1) while homogenising.
- 5. Adjust pH if necessary.

Formulation developed with Nordmann Nordic (Sweden) - www.nordmann.global

# 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.

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## CE.005 Serum Foundation

ID	: Cold emulsification / CE.005
pH-value	: 5.8
Viscosity	: 1600 mPa.s, Helipath Spindle 94, 20 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	Aqua Betaine, Sucrose, Hydrolyzed Rhodophyceae Extract, Aqua Disodium EDTA Aqua, Sodium Benzoate, Potassium Sorbate	59.55 3.00 0.20 1.00	several CLR several Ashland
3	Colorona Oriental Beige	Mica, Titanium Dioxide, Iron Oxide	1.00	Merck
4	Sisterna SP70-C Sisterna 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/Caprate	4.00 1.00 6.00 0.20 2.50 2.50 2.50 5.00 4.00	Sisterna Sisterna several Evonik EFP Biotek AAK EFP Biotek EFP Biotek
5	Unipure White LC981 Unipure Yellow LC182 Unipure Red LC381 Unipure Black LC989 Smooth Wildrose	CI 77891 CI 77492 CI 77491 CI 77499 Fragrance	2.50 0.30 0.10 0.02 0.30	Sensient Sensient Sensient Sensient LUZI

#### **Production method**

Cold Production

- 1. Premix the Actigum VSX 20 and Xilogel HS into the glycerin (1).
- Disperse the premix (1) in the aqueous phase (2) whilst homogenising during 20 minutes at 10.000 rpm.
- 3. Add the pigment (3) to phase (1+2) and homogenise.
- 4. Mix the oil phase (4) in given order and homogenise.
- Add phase (5) separately to (4) while stirring, until the pigments are fully dispersed and the phase is homogenous.
- 6. Add phase (4+5) into phase (1+2+3) and homogenise during 10 minutes at 10.000 rpm.
- 7. Adjust the pH if necessary.

# 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 Best option
- Sisterna PS750-C Good alternative

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
- 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.011 Hamam Argan Oil Gel

A low viscous and thus pumpable shower product which turns into a milk on the skin when in contact with water. Playing with the internal phase enables you to make less viscous products. Also, matching the refractive indices of the oil and glycerin phase makes this product transparent.

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# GE.011 Hamam Argan Oil Gel

ID	: Gel-to-milk / GE.011
pH-value	: N/A
Viscosity	: 3.170 mPa.s Brookfield DV2T, Spindle RV03, 10 rpm
Product form	: Gel-to-milk

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99% Sisterna SP70-C	Glycerin Sucrose Stearate	53.42 2.00	several Sisterna
2	Argan Oil Caprylic/Capric Triglyceride Tocopherol Oil	Argania Spinosa Kernel Oil Caprylic/Capric Triglyceride Glycine Soja (Soybean) Oil, Tocopherol	19.00 19.00 1.00	several several CLR
3	Imperial Oud	Parfum	0.30	Luzi
4	Deionised Water	Aqua	5.28	several

#### **Production method**

- 1. Mix (1) and heat to 70°C.
- 2. Mix (2) and heat to  $75^\circ\text{C}.$
- 3. Add (2) to (1) very slowly while homogenising.
- 4. Cool down to  $40^\circ\text{C}$  and add (3). Homogenise shortly.
- 5. Add (4) while homogenising to obtain transparency.

Formulation prepared via concentrated emulsification procedure.



#### FORMULATION INFORMATION GE.013 Oil-Gel to Milk Cleanser

A high viscous facial cleanser, still suitable for an airless dispenser, that turns into a milk on the skin when in contact with water. A good product to remove make up which leaves a velvet-like after-feel on the skin.

# GE.013 Oil-Gel to Milk Cleanser

ID	: Gel-to-milk / GE.013
pH-value	: Not Applicable
Viscosity	: 124.000 mPa.s, Brookfield DV2T Spindle RV07, rpm 10 rpm
Product form	: Gel-to-milk

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99%	Glycerin	37.70	several
	Sisterna SP70-C	Sucrose Stearate	2.00	Sisterna
2	Sunflower Oil	Helianthus Annuus (Sunflower) Seed Oil	59.00	several
	Tocopherol CLR	Glycine Soja (Soybean) Oil, Tocopherol	1.00	CLR
3	Natural Care 342791-A	Parfum	0.30	Luzi

#### **Production method**

- 1. Mix (1) and heat to 70-75°C.
- 2. Mix (2) and heat to 70-75°C.
- 3. Add (2) to (1) very slowly while homogenising.
- 4. Cool down to 40°C and add (3). Homogenise shortly.
- 5. Cool down to room temperature 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 µm 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 Best option
- Sisterna PS750-C Good alternative

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  $0.3 \mu m$ , 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.006 Spanish Eyes Serum

Making an emulsion with an oil in glycerine intermediate phase enables an oil droplet size of 0.3 micrometer. This is very suitable for dosing (oil) actives for a better skin penetration. Effective serums can be made with this technique.

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# SE.006 Spanish Eyes Serum

ID	: Spray & Wipe / SE.006
pH-value	: 5.3
Viscosity	: 2.000 mPa.s Brookfield DV2T, Spindle 93, 5 rpm
Product form	: O/W

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99% Sisterna SP70-C	Glycerin Sucrose Stearate	5.00 1.00	several Sisterna
2	MOT - Maxi Olive 3T-Action Oleosoft-4OC Tocomix L70-IP	Olea Europaea (Olive) Oil Unsaponifiables, Tocopherol Olea Europaea (Olive) Fruit Oil, Prunus Amygdalus Dulcis (Sweet Almond) Oil, Linum Usitatissimum (Linseed) Seed Oil, Borago Officinalis Seed Oil, Tocopherol Tocopherol, Helianthus Annuus Seed Oil	2.00 3.00 0.10	EFP Biotek Phenbiox Jan Dekker
3	Deionised Water Granulated Amigel	Aqua Sclerotium Gum	66.50 0.75	several Alban Muller
4	Deionised Water JuvenEye W TR-Active Euxyl PE9010	Aqua Bellis Perennis (Daisy) Flower Extract, Hieracum Pilosella (Hawkweed) Extract Glycerin, Tuber Magnatum Extract, Sodium Benzoate, Potassium Sorbate Phenoxyethanol, Ethylhexylglycerine	14.65 5.00 1.00 1.00	several CLR Phenbiox Schülke
5	NaOH (50% solution)	Sodium Hydroxide	q.s.	several

#### **Production method**

- 1. Disperse Sisterna SP70-C into the glycerin (1).
- 2. Add (2) to (1) and homogenise with a high shear mixer for 1 minute.
- 3. Add Amigel to the cold water of (3) and shear for 10 minutes with a high shear mixer until fully incorporated.
- 4. Add oil in glycerin emulsion (1+2) to (3) while mixing.
- 5. Add (4) and adjust pH if necessary with (5).

Formulation prepared via concentrated emulsification procedure

# FORMULATION INFORMATION SE.007 Moisturising Spray

A production technique to make a sprayable formulation without using ethoxylated emulsifiers. With the oil in glycerine intermediate production phase you create stable emulsions with oil droplets of 0.3 micrometer.

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# SE.007 Moisturising Spray

ID	: Spray & Wipe / SE.007
pH-value	: 6.5
Viscosity	: 232 mPa.s Brookfield DV2T, Spindle RV03, 50 rpm
Product form	: Sprayable lotion

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99%	Glycerin	5.00	several
	Sisterna SP70-C	Sucrose Stearate	1.50	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 Dr. Straetmans Luzi
3	Deionised Water	Aqua	85.45	several
	Avicel PC611	Microcrystalline Cellulose, Cellulose Gum	1.50	FMC Biopolymer
4	Euxyl PE9010	Phenoxyethanol, Ethylhexylglycerin	1.00	Schülke
	Citric Acid (10% Aq. Sol.)	Citric Acid, Aqua	qs	several

#### **Production method**

- 1. Disperse Sisterna SP70-C into the glycerin.
- 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 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 SP70-C or alternatively Sisterna PS750-C (both 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



#### FORMULATION INFORMATION MC.006Traveller Cleansing Powder

A waterless formulation which is suitable for the frequent traveller. Wet your hands and add a little bit of powder for a good cleansing sensation. Sisterna SP70-C increases the mildness, improves the skin feel and gives a creamy effect in this formulation.

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# MC.006 Traveller Cleansing Powder

ID

: Mild cleansing / MC.006

pH-value : N/A

Viscosity : N/A

Product form : Powder

	Ingredient	INCI-name	% w/w	Supplier
1	FARMAL CS 3757	Zea Mays (Corn) Starch	23.50	Ingredion
	Tea White	Parfum	1.00	Luzi
2	Talc	Talc	25.00	Kobo
	Amisoft LS-11	Sodium Lauroyl Glutamate	15.00	Ajinomoto
	Amisoft MS-11	Sodium Myristoyl Glutamate	15.00	Ajinomoto
	Mannitol	Mannitol	12.00	several
	Sisterna SP70-C	Sucrose Stearate	4.00	Sisterna
	Zymo Clear MD	Maltodextrin, Protease, Lipase	3.00	I.R.A.
	Amihope LL	Lauroyl Lysine	1.00	Ajinomoto
	Ketrol CG-SFT	Xanthan Gum	0.50	CP Kelco

#### **Production method**

1. Mix (1) by adding the perfume slowly to the Zea Mays Starch while mixing until homogeneous.

2. Add ingredients of phase (2) in given order until homogeneous.

3. Sieve the powder.

#### FORMULATION INFORMATION MC.008 Siberian Cleansing Cream

A waterless cream with a cleansing effect, in case you do not want to wash yourself with water. Just add the cream to the place that you want to wash, rub it in and wipe it off with a tissue. Sisterna SP70-C leaves the skin soft and increases the mildness of the formulation.

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# MC.008 Siberian Cleansing Cream

ID	: Mild cleansing / MC.008
pH-value	: 6.7
Viscosity	: 41.000 mPa.s Brookfield DV2T, Helipath Spindle 93, 5 rpm
Product form	: O/W Cream

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin 99% Keltrol CG SFT	Glycerin Xanthan Gum	19.00 0.30	several CP Kelco
2	Amilite GCS-12K	Sodium Cocoyl Glycinate, Aqua	43.70	Ajinomoto
3	Sisterna SP70-C Stearic Acid Lanette O VAL Vegetable alternative to Lanolin Lipex SheaLight Arnica Oil Tocomix L70-IP	Sucrose Stearate Stearic Acid Cetearyl Alcohol Butyrospermum Parkii (Shea Butter), Glyceryl Rosinate, Olea Europaea (Olive) Oil Unsaponifiables Shea Butter Ethyl Esters Glycine Soja (Soybean) Oil, Arnica Montana Flower Extract, Tocopherol Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	3.50 3.00 6.00 8.00 7.00 8.00 0.05	Sisterna several BASF EFP Biotek AAK CLR Jan Dekker
4	Euxyl PE9010 Signature Swan	Phenoxyethanol, Ethylhexylglycerin Parfum	1.00 0.45	Schülke Luzi
5	NaOH (50% solution)	Sodium Hydroxide	qs	several

#### **Production method**

- 1. Add Xanthan Gum into the glycerin and mix until fully incorporated.
- 2. Add (2) to (1) and heat to  $70^{\circ}$ C.
- 3. Mix the ingredients of (3) and heat to 70°C.
- 4. Add phase C to (1+2) while stirring at low speed.
- 4. Cool down to 40°C while stirring.
- 5. Add (4) to (1+2+3) while stirring.
- 6. Adjust the pH with NaOH if necessary.

# FORMULATION INFORMATION MC.010 2-Phase Shower Foam

A shake-before-use 2-phase formulation which is soft and gentle for the skin. Sisterna SP70-C is non-irritant and even reduces the irritancy of anionic surfactants. It also boosts the foaming capacity and increases the foam density.

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# MC.010 2-Phase Shower Foam

ID	: Mild cleansing / MC.010
pH-value	: 5.5
Viscosity	: 14 mPa.s Brookfield DV2T, Spindle RV03, 50 rpm
Product form	: 2-phase mild cleansing formulation

	Ingredient	INCI-name	% <b>w/w</b>	Supplier
1	Deionised Water Glycerin 86% SLES 28 Euroquat HC47 VG Sisterna SP70-C Nipaguard SCE	Aqua Glycerin Sodium Laureth Sulfate Cocoamidopropylbetaine Sucrose Stearate Sorbitan Caprylate, Propanediol, Benzoic Acid	8.65 3.00 25.00 5.00 1.20 1.30	several several EOC Surfactants Sisterna Clariant
2	Emogreen L19 Imperial Oud 260648-E	C15-19 Alkane Parfum	20.00 0.05	Seppic Luzi
3	Deionised Water	Aqua	35.80	several
4	Citric Acid 20% sol.	Aqua, Citric Acid	qs	several

#### Production method

- 1. Blend the ingredients of (1) in given order while stirring.
- 2. Add (2) to (1) while stirring and homogenise with high shear mixer for 3-5 minutes.
- 3. Add (3) and adjust pH to +/- 5,5 with (4).

# 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	: 232 mPa.s Brookfield DV2T, Spindle RV03, 50 rpm
Product form	: Mild cleansing milk

	Ingredient	INCI-name	% w/w	Supplier
1	Glycerin (99%)	Glycerin	5.00	several
	Sisterna SP70-C	Sucrose Stearate	1.50	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 Dr. Straetmans Luzi
3	Deionised Water	Aqua	85.45	several
	Avicel PC611	Microcrystalline Cellulose, Cellulose Gum	1.50	FMC Biopolymer
4	Euxyl PE9010	Phenoxyethanol, Ethylhexylglycerin	1.00	Schülke
	Citric Acid (10% Aq. Sol.)	Citric Acid, Aqua	qs	Several

#### **Production method**

- 1. Disperse Sisterna SP70-C into the glycerin.
- 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 silicon 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.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.

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# AS.004 Natural Cream-to-Powder Blush

ID	: Anhydrous / AS.004
pH-value	: Not applicable
Viscosity	: Wax
Product form	: Oil-wax blend – 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	several
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	10.00	Sisterna
2	Hombitan AFDC	Titanium Dioxide	11.40	Huntsman
	Ferroxide 212P Red	Cl 77491	1.00	Huntsman
	Unipure Pink LC583	Cl 77742	3.80	Sensient
	Unipure Pink LC589	Cl 77007	3.80	Sensient
3	COVIOX T-90 EU C Perfume Doucer Miel Natflor (RS38177)	Tocopherol Parfum	1.00 1.00	BASF several

#### **Production method**

- 1. Weigh (1) in beaker and put in water bath to melt to  $85^{\circ}$ 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.

Formulation developed by Laboratoires Phyto Technique Srl. (Italy) www.labophyto.it

#### 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.

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### AS.009 Lipstick Milano

ID	: Anhydrous /
pH-value	:-
Viscosity	:-
Product form	: Solid stick

	Ingredient	INCI-name	% w/w	Supplier
1	Sisterna A10E-C Sisterna SP10-C Candelilla Wax Carnauba Wax T1 Permulgin 3230 Kesterwax K82 P Sunflower Wax CCT Oil Isostearyl Isostearate TeCero-Wachs®30332cs	Sucrose Tetrastearate Triacetate Sucrose Polystearate Euphorbia Cerifera (Candelilla) Wax Copernicia Cerifera (Carnauba) Wax Ozokerite Synthetic Beeswax Helianthus Annuus (Sunflower) Seed Wax Caprylic/Capric Triglyceride Isostearyl Isostearate Hydrogenated Microcrystalline Wax, Synthetic Wax	10.00 1.00 4.50 2.00 4.50 3.00 4.20 24,41 25.00 6.29	Sisterna Sisterna Koster Keunen Koster Keunen Koster Keunen Koster Keunen several several TH.C.TROMM
2	Dermofeel Toco 70 COD 8001 COD 8003 COD 8009 COD 8008	Tocopherol Castor (Ricinus Communis) Oil, Cl 15850 Castor (Ricinus Communis) Oil, Cl 15850 Castor (Ricinus Communis) Oil, Cl 19140 Castor (Ricinus Communis) Oil, Cl 77891	0.10 2.45 0.55 3.40 7.60	Dr. Straetmans Sun Chemical Sun Chemical Sun Chemical Sun Chemical
3	Bungo	Parfum	1.00	Luzi

AS.009

#### **Production method**

- 1. Before starting: spray silicone release spray in mould and put in oven at  $45^{\circ}$ C.
- 2. Weigh (1) in beaker and put in water bath to melt to  $85^{\circ}$ 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.010 Californian Gold Rush Eye Shadow

This golden eye shadow contains Sisterna A10E-C as a binder, but also as a skin softening and spreadability improving ingredient. It results in a soft sensation when applying and gives a nice after feel.

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# AS.010 Californian Gold Rush Eye Shadow

ID	: Anhydrous / AS.010
pH-value	: N/A
Viscosity	: N/A
Product form	: Pressed Powder

	Ingredient	INCI-name	% w/w	Supplier
1	Sunrise SVA Sunrise 970 Magnesium Stearate Talc Sisterna A10E-C	Mica, Lauroyl Lysine Mica Magnesium Stearate Talc Sucrose Tetrastearate Triacetate	10.00 7.00 7.00 21.00 5.00	Geotech Geotech several several Sisterna
2	Geopearl C Crystal Bright Sun Gold Geopearl C Crystal Silk Sun Gold	Synthetic Fluorphlogopite, Titanium Dioxide, Cl 77491 Synthetic Fluorphlogopite, Titanium Dioxide, Cl 77491	30.00 10.00	Geotech Geotech
3	BRB DM5 BRB SG 212	Dimethicone Cyclopentasiloxane, Dimethicone Crosspolymer	5.00 5.00	BRB BRB

#### **Production method**

- 1. Thoroughly blend (1) in a blender.
- 2. Add (2) and mix till uniform.
- 3. Make a premix of (3), add to production and mix till uniform.
- 4. Press the powder with 150 bar for 30 seconds.

#### 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.

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# AS.006 Stylish Viking Beard Wax

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

	Ingredient	INCI-name	% w/w	Supplier
1	Cupuacu Butter Refined Castor Oil Sisterna A10E-C Kahlwax 8089 Kahlwax 6720 Dermofeel Toco 70 non-GMO	Theobroma Grandiflorum Seed Butter Ricinus Communis (Castor) Seed Oil Sucrose Tetrastearate Triacetate Cera Alba, Ceteareth-25, Oryza Sativa Cera Shorea Robusta Resin, Helianthus Annuus Seed Oil Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	10.00 42.70 5.00 15.00 15.00 0.50	Expanscience several Sisterna Kahlwax Kahlwax Dr. Straetmans
2	St. Johns Worth Oil Eldew PS-203 R	Olea Europaea (Olive) Fruit Oil, Hypericum Perforatum Flower/Leaf/Stem Extract, Tocopherol Phytosteryl/Octyldodecyl Lauroyl Glutamate	5.00 0.30	CLR 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.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.

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# AS.012 Solid Face Serum

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

	Ingredient	INCI-name	% w/w	Supplier
1	Jasmin Butter	Prunus Amygdalus Dulcis (Sweet Almond) Oil, Hydrogenated Vegetable Oil, Jasminum Officinale 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 VAS - Vegetable	Caprylic Capric Triglyceride	35.00	several
	Alternative to Silicone	Hydrogenated Ethylhexyl Olivate Hydrogenated Olive Oil Unsaponifiables	15.00	EFP Biotek
	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) Seed 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.013 Solid Sun Stick SPF20

Soft touch suncare balm with an easy pay-off and good oil absorption which provides a non-greasy and dry skin feel, due to Sisterna A10E-C.

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# AS.013 Solid Sun Stick SPF20

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

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

#### **Production method**

- 1. Mix the ingredients at  $75^{\circ}$ 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 developed by RAHN AG (Switzerland) www.rahn-group.com



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