SISTERNA®
For know-how in sucrose ester techniques

Technical Datasheet

Sisterna A10E-C

INTRODUCTION

Sisterna® sucrose esters are a unique range of natural, PEG-free, non-ionic, food grade emulsifiers and specialty products which provide an exceptional skin-feel as well as they improve smoothness, emolliency and moisture level to the skin. In addition, Sisterna® sucrose esters can offer other unique benefits to personal care formulations.

Sisterna A10E-C is one of our specialty grades: our so called sugar wax. It is a lipidic phase modifier which thickens oils, improves the structure of wax products and provides a well-liked skin feel.

BENEFITS OF SUCROSE ESTERS

- High quality
- Ethylene oxide or PEG free
- Edible
- Easily biodegradable
- Covering a wide range of HLB values
- Non-irritant properties
- Non-ionic
- Neutral in taste and odour
- Skin feel modifier

EXTRA BENEFITS SISTERNA A10E-C

- Thickens or gels many oils
- Has a positive influence on blooming of butters
- Improves the sensorial properties of oily products
  - Better absorption
  - Good after skin feel
- Stabilizes emulsions with high oil content
- Improves the stability of W/O emulsions
- Powder binding capacity
- Reduces the melting temperature of a butter or wax to skin temperature for an easier application and spreadability
- Has positive effects in stick applications:
  - Helps reducing blooming and sweating of sticks
  - Improves cohesion and reduces brittleness of sticks

GENERAL CHARACTERISTICS

INCI-name	: Sucrose Tetrastearate Triacetate
CAS No.	: 52439-69-7
EINECS No	: 257-922-3
Form at 25 °C	: off-white powder
Melting point	: 44-50°C
Solubility (above melting point)	: Soluble in oil. Insoluble in water

More characteristics are presented in the specification sheet

APPLICATIONS
Sisterna A10E-C has good benefits in W/O and O/W emulsions and especially in anhydrous formulations.

Concepts in which Sisterna A10E-C is used are:

- Main- and co-emulsifier concept: It is used to stabilise the oil phase or to increase viscosity in the formulation. It can also Improve the stability of W/O emulsions containing high amounts of pigments.
- Anhydrous concepts:
    - Lipsticks/lip balms: Helps against blooming/sweating, improves cohesion and reduces brittleness of the stick and it improves the spreadability.
    - Pressed powders: As a binder and a skin feel modifier to improve the feel at application and the after skin feel.
    - Body waxes and butters: Eliminating the greasiness and for a better spreadability due to the viscosity decrease near skin temperature.
    - Hair and beard waxes: same as above, combined with the softening effect on the hairs.
    - Thickened oils: to produce an oil with a higher viscosity.

More information is presented in our Technical Notes, which are available on request.

MIXING INSTRUCTIONS
For emulsions Sisterna A10E-C can be added to the oil phase, heated 44-50°C and mixed until the phase is homogeneous. Then the continue making the emulsion as suggested by the used emulsifiers.
For waxes, butters and lipsticks, add Sisterna A10E-C to the oil phase and heat to 44-50°C. Fill the product into the packaging and cool down without stirring to form the solid formulation.
For pressed powders, mix Sisterna A10E-C with the other powders and press for +/- 30 seconds on 150 bar, depending on your dosage. For loose powders, leave out the pressing.

pH stability: 4 – 8.

Electrolyte stability: Flocculation may occur in an high electrolyte environment.

CERTIFICATIONS:
2-0889-18-100-00

For more information, please contact info@Sisterna.com or find your local exclusive distributor **here**

GUIDE FORMULATIONS

Lipstick Milano

ID Anhydrous / AS.009
pH-value N/A
Viscosity N/A
Product form Solid stick

	Ingredient	INCI-name	% w/w	Supplier
1	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	10.00	Sisterna B.V.
	Sisterna SP01-C	Sucrose Polystearate	1.00	Sisterna B.V.
	Candelilla Wax	Euphorbia Cerifera (Candelilla) Wax	4.50	Koster Keunen
	Carnauba Wax T1	Copernicia Cerifera (Carnauba) Wax	2.00	Koster Keunen
	Permulgin 3230	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
	CCT Oil	Caprylic/Capric Triglyceride	24.41	several
	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	Bungo 500326	Parfum	1.00	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.

Arctic Protection Cream

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

	Ingredient	INCI-name	% w/w	Supplier
1	Deionised water	Aqua	60.40	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
	Aqua GG	Glyceryl Glucoside	3.00	Gene-Chem
2	Sisterna SP01-C	Sucrose Polystearate	1.50	Sisterna
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	3.00	Sisterna
	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	Parfum	0.30	Luzi
	Borealine Protect	Glycerin, Picea Mariana Bark Extract	0.10	Lucas Meyer
	Euxyl K830	Phenoxyethanol, Ethylhexylglycerin, Octenidine HCl	1.00	Schulke

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

All-Purpose Travellers Balm

ID Anhydrous / AS.008
pH-value N/A
Viscosity N/A
Product form Anhydrous balm

	Ingredient	INCI-name	% w/w	Supplier
1	Lipex bassol C	Canola Oil	18.00	AAK
	Caprylic/Capric Triglyceride	Caprylic/Capric Triglyceride	18.00	several
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	15.00	Sisterna
	APB Apricot Butter	Prunus Armeniaca (Apricot) Kernel Oil, Hydrogenated Vegetable Oil	5.00	EFP Biotek
	VS Olive Squalane	Squalane	15.00	EFP Biotek
	OWB Squalene-Based Olive Waxy Butter	Olea Europaea (Olive) Fruit Oil, Olea Europaea (Olive) Oil Unsaponifiables	10.00	EFP Biotek
	VPT185 Vegetable Petrolatum Transparent 185	Ricinus Communis (Castor) Seed Oil, Hydrogenated Castor Oil, Copernicia Cerifera (Carnauba) Wax, Beeswax	17.00	EFP Biotek
	Tocomix L70-IP	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.10	Jan Dekker
2	Orange Mega	Aroma	1.90	Luzi

Production method
1. Heat phase (1) to 80°C and stir ingredients until homogeneous.
2. Cool phase (1) down to 50°C.
3. Add (2) to (1) and stirr until homogeneous.
4. Fill the product in a suitable packaging at 40-45°C.

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	Mica, Lauroyl Lysine	10.00	Geotech
	Sunrise 970	Mica	7.00	Geotech
	Magnesium Stearate	Magnesium Stearate	7.00	several
	Talc	Talc	21.00	several
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	5.00	Sisterna
2	Geopearl C Crystal Bright Sun Gold	Synthetic Fluorphlogopite, Titanium Dioxide, CI 77491	30.00	Geotech
	Geopearl C Crystal Silk Sun Gold	Synthetic Fluorphlogopite, Titanium Dioxide, CI 77491	10.00	Geotech
3	BRB DM5	Dimethicone	5.00	BRB
	BRB SG 212	Cyclopentasiloxane, Dimethicone Crosspolymer	5.00	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

Mexican Avocado Hair Wax

ID Anhydrous / AS.011
pH-value N/A
Viscosity N/A
Product form Anhydrous balm

	Ingredient	INCI-name	% w/w	Supplier
1	VAW Vegetable Alternative to Lanolin Wax	Glyceryl Rosinate, Ricinus Communis Seed Oil, Hydrogenated Vegetable Oil	40.00	EFP Biotek
	Sisterna A10E-C	Sucrose Tetrastearate Triacetate	15.00	Sisterna
	Hempseed Oil MM	Cannabis Sativa Seed Oil	5.00	MMP Inc.
	VS Olive Squalane	Squalane	23.00	EFP Biotek
	HSBO Vegetable Alternative to Beeswax #1	Hydrogenated Soybean Oil	7.50	EFP Biotek
	AVS Avocado Serum	Persea Gratissima (Avocado) Oil, Phytosterols, Olea Europaea (Olive) Oil Unsaponifiables, Tocopherol	7.50	EFP Biotek
	Tocomix L70-IP	Tocopherol, Helianthus Annuus Seed Oil	0.10	Jan Dekker
2	Style Me	Parfum	1.90	Luzi

Production method
1. Heat (1) to 80°C and stir ingredients until homogenous.
2. Cool (1) down to 50°C.
3. Add (2) to (1) and stir until homogenous.
4. Fill the product in a suitable packaging at 40-45°C.