

### Coco Surfactant

100% coconut-derived surfactants that deliver excellent cleansing property with proven mildness for personal, home, and institutional products.



#### **SULFATE-FREE CLEANSERS**

PRIMARY SURFACTANTS

#### SUFRAVON 820

Potassium Cocoate (and) Potassium Palmitate Home Care Formulations

#### SUFRAVON 874

C12 - C18 Potassium Soap Home Care Formulations

#### **SUFRAVON 868/869**

Potassium Cocoate Personal/Home Care Formulations



#### SUFRAVON 840GV2

Potassium Cocoate (C12 - C18) Home Care Formulations

#### SUFRAVON 890

Potassium Cocoate (and)
Potassium Olivate
Personal Care Formulations

#### SUFRAVON 875

Potassium Laurate Personal Care Formulations



#### SOLID

#### SUFRAVON SN100 (SOAP NOODLES) SUFRAVON SP200 (POWDER)

Sodium Cocoate
Personal/Home Care Formulations

#### SUFRAVON SCI80F (FLAKES) SUFRAVON SCI80P (POWDER)

Sodium Cocoyl Isethionate Personal/Home Care Formulations



#### **FOAMIER SOLUTIONS**

**FOAM BOOSTER** 

#### **SUFRAMIDE 307**

Cocamide Methyl MEA (CMMEA) 80% Active Nitrosamine-free, EO-free, DEA-free

#### **SUFRAMIDE 1050**

Coco MIPA 100% Active Nitrosamine-free EO-free, DEA-free, MEA-free

#### SUFRAMIDE 301/300/305

Cocomonoethanolamide (CMEA) 85-95% Active Nitrosamine-free, EO-free, DEA-free

#### SUFRAMIDE 182/190/191

Cocodiethanolamide (CDEA) 82-90% Active E0-free

#### SUFRAMIDE LD

Lauramide DEA 90% Active EO-free

#### SUFRAMIDE LM

Lauramide MEA 90% Active EO-free, DEA-free

#### MILD WASHES

WIDE PH RANGE SURFACTANTS

#### SUFRASOFT CB30

Cocamidopropyl Betaine 30% Active

#### SUFRASOFT CB45

Cocamidopropyl Betaine 40% Active

#### SUFRASOFT CB140

Cocamidopropyl Betaine Glycerin-free

#### SUFRASOFT LB30

Lauramidopropyl Betaine 30% Active

#### SUFRASOFT A0100

Cocamidopropylamine Oxide

#### SUFRASOFT A0200

Lauramine Oxide

#### SUFRASOFT A0250

Cocamine Oxide

#### SUFRASOFT HS100

Cocamidopropyl Hydroxysultaine

#### SUFRASOFT HS200

Lauramidopropyl Hydroxysultaine

#### SUFRASOFT HS600

Lauryl Hydroxysultaine



#### SPECIAL FEATURES

- Cold-processable
- Compatible with a wide range of surfactants
- Allergen-free and non-GMO
- Enhances the luxurious feel of formulations









#### **GLYSOFT RG**

Refined Glycerin 100% Coconut-derived glycerin

#### **GLYSOFT SF**

Cocoglycerides Superfatting and superior thickening agent

#### NEOSOFT SD/CD

Stearamidopropyldimethylamine Lactate / Cocamidopropyldimethylamine Lactate Cationic surfactant as a conditioning agent in hair care products

#### **PEARLUX PB**

Cold-processable pearlizing agent

#### **PEARLUX EGDS**

**Glycol Distearate** Superior pearlizing agent compatible with a wide range of surfactants

#### EMULSIER GMS 100/200

Glyceryl Stearate Low HLB emulsifier

#### **EMULSIER GML**

Glyceryl Laurate Coconut-derived emulsifier

Talk to our experts: info@natura-aeropack.com www.natura-aeropack.com

Learn more about our sustainable ingredients

f in Natura Aeropack Corporation

### Coco Emollients

#### PETROLEUM-FREE MOISTURIZER

Naturally-derived skin protecting and caring intermediate products. Smoothens and moisturizes the skin resulting in lower transepidermal water loss.







#### SKIN PROTECTANT

Natural and petroleum-free, helps retain skin moisture. Use as an ointment to help treat rashes, eczema and other related skin disease.

#### COCOLATUM 501

#### COCOLATUM 503

For intense moisturization

100% plant-derived for intense moisturization

### Glyzer CB100





#### **COCONUT BUTTER**

Natural coconut butter for intensive moisturization. Can be used for skin care and hair care products like body butter, body wash, hair conditioner, lip balm, etc.

### **GlyzerCT**



#### COCO MCT

Helps maintain skin moisture, resulting in a more supple and healthy appearance. Additionally, it is an effective carrier for UV filters and pigments in skincare and cosmetics products.

#### **GLYZER CT100**

Light emollient

#### **GLYZER CT200**

Medium-spreading emollient

#### **GLYZER CT500**

UV filter dispersing agent and solubilizer

#### **GLYZER CT600**

Dry Oil Feel

#### **COCOLATUM SKIN PROTECTANT**

PRODUCT	INCINAME	APPLICATION
COCOLATUM 501	Cocoglycerides, Cera alba (Beeswax), Euphorbia cerifera (Candelilla) Wax	Moisturizer, Ointment, Lubricant, Hand Balm, Body Butter
COCOLATUM 503	Cocoglycerides (and) Oryza sativa (Rice) Bran Wax (and) Euphorbia cerifera (Candelilla) Wax	Moisturizer, Ointment, Lubricant

#### **GLYZER CT SKIN CARE EMOLLIENTS**

PRODUCT	INCINAME	APPLICATION
GLYZER CT100	Caprylic/Capric Triglyceride	Baby Oil, Face Oil, Beauty Elixir
GLYZER CT200	Caprylic/Capric/Lauric Triglyceride	Light Body Oil, Massage Oil
GLYZER CT500	Modified Cocoglycerides	UV Filter and Pigment Solubilizer
GLYZER CT600	Tricaprylin	Cosmetics, Face Moisturizer

#### **GLYZER CB** SKIN MOISTURIZER

PRODUCT	INCI NAME	APPLICATION
GLYZER CB100	Cocos nucifera (Coconut) Seed Butter	Body Butter, Body Wash, Hair Conditioner, Lip Balm

### Coco Actives

#### PLANT-BASED ACTIVE INGREDIENTS

Earth-conscious ingredients that are proven to be effective in solving challenges in skin care, hair care, and home care.

PRODUCT	INCI NAME	APPLICATION
SUFRAQUAT FS25I	Dialkylhydroxyethylammonium Methosulfate, Isopropyl Alcohol	Fabric Softener (High active for very low-viscosity formulations)
SUFRAQUAT FS50I	Dialkylhydroxyethylammonium Methosulfate, Isopropyl Alcohol	Fabric Softener (Easily processable, non-viscosity building)
SUFRAQUAT FS100I	Dialkylhydroxyethylammonium Methosulfate, Ethyl Alcohol	Fabric Softener (Easily processable, medium-viscosity building)
SUFRAQUAT FS200I	Dialkylhydroxyethylammonium Methosulfate, Isopropyl Alcohol	Fabric Softener (Low-dosage, high-viscosity formulations)
SUFRAQUAT BK80	Benzalkonium Chloride (80% Active)	Cleaning facilities, equipment, and surfaces
SUFRAQUAT BK50	Benzalkonium Chloride (50% Active)	Multipurpose cleaner and disinfectant
NATPRO 8000	Glyceryl Caprylate, Glyceryl Caprate, Glyceryl Laurate	Natural Preservative (Broad-Spectrum)



### Coco Specialty Bases



#### RINSE OFF I SULFATE-FREE SYSTEM

Naturally-derived surfactant system with good cleaning and foaming ability. It has excellent rinsing ability, reducing build-up that causes growth of harmful microorganisms. Mild, safe to use, and environmentally-friendly.

PRODUCT	INCI NAME	FUNCTION
ECOPURE SB10	Potassium Cocoate (and) Cocamide MEA (and) Cocamidopropyl Betaine (and) Glycerin (and) Cocoglycerides	Mild Soap Base
ECOPURE SB20	Potassium Cocoate (and) Lauryl Glucoside (and) Glycerin (and) Cocoglycerides	Tear-free Soap Base
ECOPURE SB30	Potassium Cocoate (and) Sodium Lauroyl Sarcosinate (and) Cocamide MEA (and) Cocamidopropyl Betaine (and) Cocoglycerides (and) Stearamidopropyl Dimethylamine Lactate	Clear Soap Base for Personal Care
ECOPURE SB30P	Potassium Cocoate (and) Sodium Lauroyl Sarcosinate (and) Cocamide MEA (and) Cocamidopropyl Betaine (and) Cocoglycerides (and) Stearamidopropyl Dimethylamine Lactate (and) Glycol Distearate	Pearlized Soap Base for Personal Care
ECOPURE SB40	Potassium Cocoate (and) Cocamide MEA (and) Sodium Citrate	Soap Base for Home Care
ECOPURE SB50	Potassium Cocoate (and) Sodium Lauroyl Sarcosinate (and) Cocamide MEA (and) Stearamidopropyl Dimethylamine Lactate (and) Cocoglycerides	High Foaming Soap Base
ECOPURE LP10	Cocamidopropyl Betaine (and) Glycerin (and) Stearamidopropyl Dimethylamine Lactate	Low pH Surfactant Base
ECOPURE WP20*	Cocamide MEA (and) Lauramine Oxide	Wide pH Surfactant Base
ECOPURE CMB100/200	Cocamide MEA (and) Cocamidopropyl Betaine (and) Glycerin	Concentrated Foam-boosting Surfactant
ECOPURE CS10	Cetearyl Alcohol, Dicocoylhydroxyethylammonium Methosulfate, Cocamidopropyl Dimethylamine, <i>Cocos nucifera</i> (Coconut) Seed Butter, Cocoglycerides and Lactic Acid	Hair Conditioning Base

#### LEAVE ON I COLD PROCESSABLE EMULSION BLEND

Easy to use emulsion concentrates for creams and lotions. Provides extra moisture to smoothen the skin.

PRODUCT	INCI NAME	FUNCTION
ECOPURE LE*	Caprylic/Capric Triglyceride (and) Glyceryl Stearate (and) PEG-100 Stearate	Light Cream Base
ECOPURE HE*	Cocos nucifera (Coconut) Seed Butter (and) Glyceryl Stearate (and) PEG-100 Stearate	Heavy Cream Base

#### **PROCEDURE**



Recommended dosage: 30-40% \*ECOPURE WP20, LE, HE

recommended dosage: 10-25%



Add water



Add

Preservatives: 0.1-1.0% Fragrance: 0.1-1.0% Thickener: 0.5-5.0%

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# Cocolatum Moisturizing Skin Protectant





### Cocolatum

#### **Moisturizing Skin Protectant**

#### Cocolatum 501

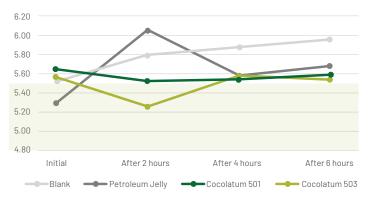
Cocoglycerides (and) Cera alba (Beeswax) (and) Euphorbia cerifera (Candelilla) Wax

#### Cocolatum 503

Cocoglycerides (and) Euphorbia cerifera (Candelilla) Wax (and) Oryza sativa (Rice) Bran Wax



#### SKIN pH



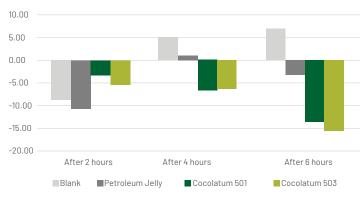
The graph above shows Cocolatum 501 and Cocolatum 503 have lowered the skin pH to the range of 4.7 to 5.75, which is the optimal pH of the skin.

#### **WASHING OFF ABILITY**



The panel was immersed in a surfactant solution for 24 hours. The Cocolatum 503 sample washed off the panel most easily.

#### **ERYTHEMA (REDNESS OF SKIN)**



Increasing erythema value indicates skin irritation. The graph above shows that  ${\tt Cocolatum}\,{\tt 501}\,{\tt and}\,{\tt 503}\,{\tt can}\,{\tt lower}\,{\tt the}\,{\tt erythema}\,{\tt (redness)}\,{\tt of}\,{\tt the}\,{\tt skin}.$ 

#### SAMPLE FORMULATION EGG LIP BALM

MATERIALS	INCI NAME	%
Cocolatum 503	Cocoglycerides (and) Euphorbia cerife (Candelilla) Wax (and) Oryza sativa (Rice) Bran Wax	ra 89.40
Candelilla Wax	Euphorbia Candelilla wax	6.00
Cetyl Alcohol	Cetyl Alcohol	2.00
Glyzer CT200	Caprylic/Capric/Lauric Triglyceride	1.00
Strawberry flavor	Flavor	0.50
Cream flavor	Flavor	0.50
Vitamin E Acetate	Tocopheryl Acetate	0.50
Red 6 Lake	CI 15850	0.10
		TOTAL: 100

#### PROCEDURE

Load Cocolatum 503, Candelilla Wax, Cetyl Alcohol and Glyzer CT200 into a single vessel and heat.

Continuously stir during melting until temperature reaches  $65^{\circ}$ C to  $70^{\circ}$ C and until appearance becomes homogeneous.

Cool down to 40°C.

Add in the flavors and colorants and continuously stir until homogeneous and no lumps of pigment remain.

#### PHYSICAL APPEARANCE

Appearance	Soft solid balm
Color	Pink

#### COLOR DISPERSION



#### **SPREADABILITY**



The samples were applied to the filter paper and left to spread for 5 minutes. Cocolatum 501 and 503 have good spreading ability against petroleum jelly.



# Glyzer CT Coconut Light Emollients









Sustainable coconut-derived light emollients, eco-friendly, and safer alternative to cyclic siloxanes. Ideal for leave-on personal care products like creams and lotions, replacing petroleum-derived mineral oil.

Dermatologically tested as mild and gentle



Derived from natural and sustainable raw materials



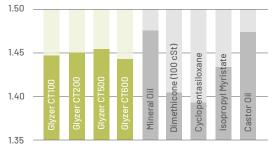
Has natural antibacterial property due to Lauric acid



#### PHYSICO-CHEMICAL PROPERTIES

BRAND NAME	INCI NAME	DESCRIPTION
Glyzer CT100	Caprylic/Capric Triglyceride	Light spreading emollient
Glyzer CT200	Caprylic/Capric/ Lauric Triglyceride	Medium spreading emollient with Lauric acid
Glyzer CT500 +SPF 5	Cocoglycerides	UV filter solubilizer and pigment dispersing agent
Glyzer CT600	Tricaprylin	Dry Oil Feel

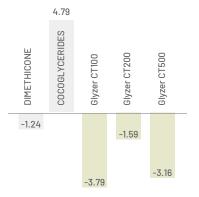
#### REFRACTIVE INDEX



The refractive index represents the ratio of the speed of light in a vacuum to the speed of light in the medium under consideration.

The refractive index of an emollient can be related to the gloss or shine of the ingredient on the skin or in a formulation; higher refractive indices result in more gloss or shine.

#### TRANSEPIDERMAL WATER LOSS



A negative change in TEWL value means a decrease in the amount of water loss by the skin, indicative of better moisture retention by use of **Glyzer CT**.

**Glyzer CT** range has better moisturizing property than Dimethicone and Cocoglycerides.

**Glyzer CT100** has the most decrease in TEWL, hence, the best moisturizing emollient.

#### APPLICATION PROPERTIES SMOOTHENING AND REPAIRING PROPERTY

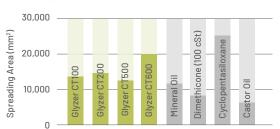


The damaged hair strand has open hair cuticles resulting in rough texture. Upon application of **Glyzer CT100**, the strands became smooth keeping hair cuticles intact.

#### **SUNCREEN SOLUBILITY**

		6% Benzophenone-3		5% Avok	enzone
		Insoluble	Soluble	Insoluble	Soluble
	Mineral Oil	0		0	
	Isopropyl Myristate		<b>O</b>		<b>②</b>
Emollients	Glyzer CT600		<b>②</b>		<b>Ø</b>
	Glyzer CT500		<b>②</b>		<b>Ø</b>
	Glyzer CT200		<b>Ø</b>		0
	Glyzer CT100		<b>②</b>		<b>②</b>
	Dimethicone 100 cSt	0		0	
	Cyclopentasiloxane	0		0	
	Castor Oil		<b>Ø</b>		<b>Ø</b>

#### IN-VITRO SPREADABILITY



**Glyzer CT100, CT200, CT500** and **CT600**, can give light to medium spreading characteristic to products.

#### **PIGMENT WETTABILITY**

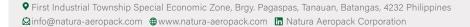
PIGMENT DISPERSION AFTER 24 HOURS



Method: Pigment blend (20% red iron oxide) was added to the emollient sample and dispersed for 1 hour at 1000 rpm.

Result: Based on the visual evaluation of the samples, our Glyzer CT500 has a very good performance as pigment carrier, followed by Glyzer CT200 and Glyzer CT100.







# Glyzer CB100 Coconut Butter





## Glyzer CB100

#### COCOS NUCIFERA (COCONUT) SEED BUTTER

Natural coconut butter for intensive moisturization. Can be used for skin care and hair care products like body butter, body wash, hair conditioner, lip balm, etc.



#### MOISTURIZING

Lowers transepidermal water loss of the skin



Coconut-derived emollient



#### LIGHT COLOR

Does not affect the color of the end product



#### **FRAGRANCE**

**FREE** No coconut smell



#### NON-TACKY

Stays on top of the skin and non-greasy

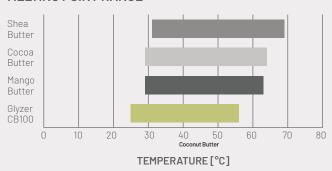


#### MELTS ON SKIN

Low melting point, closer to body temperature

#### PHYSICO-CHEMICAL PROPERTIES

#### **MELTING POINT RANGE**



Glyzer CB100 has lower melting point than the rest of the samples. It is also closer to body temperature which means it can be easily spread on skin and will impart less greasy feel.

#### TEWL/MEASUREMENT g/h/m2



The lower the TEWL value, the better the skin's ability to hold moisture.

Lotion with Glyzer CB100 has lower TEWL than the lotion with Shea Butter. This means that Glyzer CB100 can improve skin's ability to retain moisture.

#### **FORMULATION**

INGERDIENTS	INCI NAME	FUNCTION	%
Demineralized Water	Aqua	Diluent	q.s to 100
Chelating Agent	Methylglycinediacetic Acid	Chelating Agent	0.10
Glysoft RG	Glycerin	Humectant	5.00
Polymer Thickener	Sodium Acrylates Copolymer (and) Lecithin	Rheology Modifier	1.00
Gum	Xanthan Gum	Rheology Modifier	0.50
Glyzer CB100	Cocos nucifera (Coconut) Seed Butter	Emollient	5.00
Cetyl Alcohol	Cetyl Alcohol	Emulsifier	2.00
Glyzer CT200	Caprylic / Capric / Lauric Triglyceride	Emollient	10.00
Emulsifier System	Glyceryl Stearate Citrate, Polyglycerol Polyricinoleate, Sorbitan Isostearate, Triethylhexanoin	Emulsifier	1.00
Vitamin E	Tocopheryl Acetate	Antioxidant	0.10
Fragrance		Fragrance	0.20
Preservative	Phenoxyethanol (and) Ethylhexylglycerin	Preservative	0.80
Lactic Acid	Lactic Acid	pH Modifier	q.s

#### SENSORY EVALUATION

**GLYZER CB100 VS. SHEA BUTTER** 



- Body Lotion (with Shea Butter)
- Body Lotion (with Glyzer CB100)

#### **PROCEDURE**

In two separate containers, mix all ingredients under Phase A and Phase B.

Combine Phase A and B and heat to 70°C.

In a separate vessel, heat Phase C to 70°C.

Once fully melted, add Phase C to Phase AB, and cool down to 40°C.

At  $40^{\circ}$ C add Phase D to Phase ABC.



## Sufravon



Plant-based Cleansing Surfactant







#### Plant-based Cleansing Surfactant

#### PRIMARY SURFACTANT I ANIONIC SURFACTANT

Sufravon functions as a primary or secondary surfactant - making it an excellent component in personal care and homecare formulations.

#### **APPLICATIONS**

- Baby Soap
- Shampoo
- Liquid Body Soap
- Hand Soap
- Homecare Formulation



Exceptional foaming & cleansing properties



Easy to rinse, less water usage

Excellent stain removing property

#### **SUFRAVON VARIANTS**



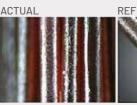
ECOCERT

PRODUCTS	SUFRAVON 820	SUFRAVON 840GV2*	SUFRAVON 874*	SUFRAVON 868*
INCI Name	Potassium Cocoate (and) Palmitate	Potassium Cocoate (C12 - C18)	C12 - C18 Potassium Soap	Potassium Cocoate
Main Composition	Coconut Oil (and) Palm Oil	Fractionated Coconut Oil	Coconut Oil (C12 - C18)	Coconut Oil
рН	9 - 11	10 – 11	9.5 - 10.5	9.5 - 10.5
Applications	Home Care	Home Care	Home Care	Home Care, Personal Care

PRODUCTS	SUFRAVON 869*	SUFRAVON 890*	SUFRAVON 875
INCI Name	Potassium Cocoate	Potassium Cocoate (and) Olivate	Potassium Laurate (High Lauric Acid)
Main Composition	Coconut Oil	Coconut Oil (and) Olive Oil	Coconut Oil
рН	7.5 - 8.5	9 - 11	9.5 - 10.5
Applications	Personal Care, Baby Care, Pet care	Personal Care, Baby Care, Pet Care	Personal Care

#### HAIR OUALITY

#### **SUFRAVON 869**



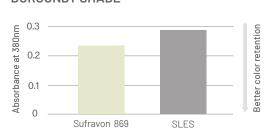


\*\*\*\* Hair Cuticle Results



Results: A healthier hair cuticle was detected when treated with a 10% active solution of Sufravon 869 than SLES. The encircled part indicates that the hair cuticle was damaged by applying SLES solution.

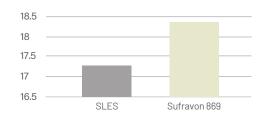
#### HAIR SHAMPOO EVALUATION: HAIR COLOR RETENTION **BURGUNDY SHADE**



Blank: 10% active of surfactant sample Procedure: Color treated hair tress was submerged in the solution for 10 minutes. Then the UV absorbance of the rinsate was measured using UV-Vis Spectrophotometer

The rinsate with SLES has higher absorbance than the rinsate with Sufravon 869. This means that Sufravon 869 can improve hair color retention better than SLES.

#### FOAM HEIGHT (CM) VS SLES



Surfactant Actives: 2% CDEA, 10% Betaine, 12% Test Sample (active content)

Foam height of Sufravon 874 is better than SLES.





## Sufrasoft AO

**Amine Oxide Surfactant** 



## Sufrasoft AO

#### **Amine Oxide Surfactant**

#### AMPHOTERIC FOAM BOOSTER & VISCOSITY BUILDER

**Sufrasoft** is a coconut-derived amphoteric surfactant with excellent foam boosting and viscosity building ability even in hard water. It can be used in a wide range of pH and is compatible with all types of surfactants, making it ideal for both personal and home care applications.

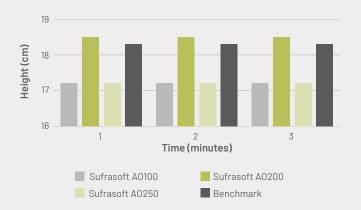


VARIANT	INCI NAME	RECOMMENDED DOSAGE
SUFRASOFT A0100	Cocamidopropylamine Oxide	0.5% - 15.0%
SUFRASOFT A0200	Lauramine Oxide	0.5% - 15.0%
SUFRASOFT A0250	Cocamine Oxide	0.5% - 15.0%

#### FORMULATION COMPATIBILITY

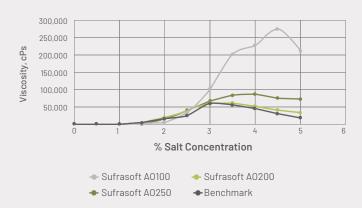
VARIANT	ACID STABLE	ALKALI STABLE	HYDROGEN PEROXIDE COMPATIBLE	SODIUM HYPOCHLORITE COMPATIBLE
Sufrasoft A0100	•		•	
Sufrasoft A0200			<b>Ø</b>	<b>Ø</b>
Sufrasoft A0250			•	•

#### **FOAM HEIGHT (1% SOLUTION)**



**Sufrasoft A0200** has the highest foam among all the samples. Stable foam height was observed for all the samples tested.

#### SALT CURVE PROFILE



The system with **Sufrasoft A0100** has the highest viscosity with the addition of 4.5% of salt. Second to the highest is **Sufrasoft A0250**, while **Sufrasoft A0200** and the benchmark samples are comparable.





## Neosoft

**Cationic Conditioning Surfactant** 





#### **Cationic Conditioning Surfactant**

Neosoft is a plant-based hair conditioning active. It is a cold-processable conditioning active for hair conditioner, conditioning shampoo and hair mask formulations. Delivered in liquid form for easy addition in the formulation.



#### PHYSICO-CHEMICAL PROPERTIES

BRAND	INCI NAME	SOURCE	DOSAGE	% ACTIVE
Neosoft SD	Stearamidopropyl Dimethylamine Lactate	Palm	2 - 10 %	20% min
Neosoft CD	Cocamidopropyl Dimethylamine Lactate	Coconut	0.5 - 5 %	90% min



#### SMOOTHENS HAIR

Lessens hair static & makes hair more manageable



#### TREATS HAIR

Closes hair cuticle for more tamed hair shaft



#### NO BUILD UP

Easy to remove with shampoo and does not build up on hair & scalp

\*Neosoft SD only







#### NON-TACKY

EASY TO USE

temperature

Liquid at room

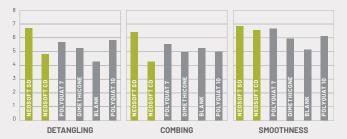
Light & non-greasy. Does not weigh hair down

and water soluble

#### APPLICATION BENEFITS SENSORY EVALUATION

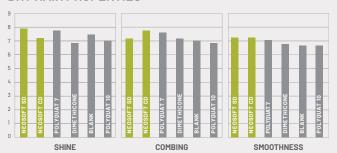
Conditioning Agent	Recommended Dose (in%)	Dosage used (Median Value)
Polyquaternium 7	2 - 5	3.5
Polyquaternium 10	0.25 - 0.5	0.375
Neosoft SD	2 - 10	6
Neosoft CD	0.5 - 5	2.75
Dimethicone	0.5 - 5	2.75
NO. OF PANELISTS: 7		

#### WET HAIR PROPERTIES



For all wet hair properties, Neosoft SD has outperformed all other hair conditioning agents. Neosoft CD gave comparable results to Polyquat 7 and Neosoft SD in terms of smoothness.

#### DRY HAIR PROPERTIES



Out of all the hair conditioning agents, Neosoft SD outperformed them all when it comes to shine. The best performing conditioning agent when it comes to dry combing is Neosoft CD. Neosoft CD and Neosoft SD tied as the best in hair smoothening effect, outperforming Polyquat 7.

#### MECHANISM OF ACTION



The effect of anionic and cationic surfactants on the hair cuticle.

(A) Anionic surfactants in shampoo may cause the hair cuticles to slightly open, this is due to the surplus of negative charges generating static electricity leading

(B) Cationic surfactant (Neosoft CD) releases a positive charge that neutralizes the negative charge on the hair cuticle forming a neutral, hydrophobic, cationic-anionic complex. This reduces the static electricity and relaxes the hair cuticle, making it smooth and less frizzy.

#### SAMPLE FORMULATION HAIR CONDITIONER

	MATERIALS	INCI NAME	%
⋖	Demineralized Water	Aqua	q.s
lase	Chelating Agent	Methylglycinediacetic Acid	0.10
ᅕ	Glysoft RG	Glycerin	2.00
	Cetyl Alcohol	Cetyl Alcohol	5.00
hase B	Glyzer CT200	Caprylic/Capric/Lauric Triglyceride	3.00
Pha	BTAC	Behentrimonium Chloride	2.00
	CTAC	Cetrimonium Chloride	3.00
	Neosoft SD	Stearamidopropyl Dimethylamine Lactate	2.00
ase C	Antioxidant	D-Panthenol	0.50
has	Preservative	Phenoxyethanol (and) Ethylhexylglycerin	0.80
	Vacuum Salt	Sodium Chloride	0.50

TOTAL: 100

#### **PROCEDURE**

Phase A: Load Water in a clean container. Add Chelating Agent and Glysoft RG, Heat to 65-70°C.

Phase B: In a separate container, combine Cetyl Alcohol, Glyzer CT200,

BTAC and CTAC. Heat to 65-70°C. Mix Phase A and Phase B

Cool down to 40-45°C.

Load Neosoft SD, Antioxidant, Preservative and Vacuum Salt.



## Pearlux PB

**Liquid Pearlizing Agent** 





#### **Liquid Pearlizing Agent**

#### Pearlux PB10

Potassium Cocoate (and) Glycol Distearate (and) Cocamide MEA Sulfate, PEG, and EO-free

#### Pearlux PB40

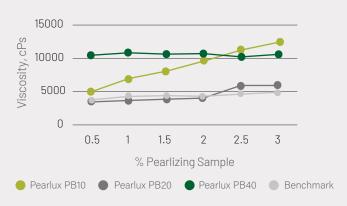
Glycol Distearate (and) Sodium Laureth Sulfate (and) Laureth 10 (and) Cocamide MEA Optimum pearlizing effect

#### Pearlux PB20

Potassium Cocoate (and) Glycol Distearate (and) Cocamide MEA (and) Laureth-10 Sulfate and PEG-free, provides more opaque and pearlizing effect

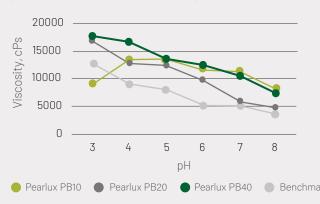
- Offers smooth luster and shimmering effect on personal care and cosmetic products
- Cold-processable and easy to disperse
- Enhances product viscosity
- Can be used in a wide range of pH
- Naturally-derived from sustainable coconut oil
- Environmentally friendly

#### VISCOSITY PROFILE IN SLES SURFACTANT SYSTEM (15% SLES / 5% Betaine / 5% CMEA)



The viscosity of the system increases as the amount of **Pearlux PB10**, **Pearlux PB20** and Benchmark increases. Pearlux PB10 has the highest viscosity among the three samples.

#### VISCOSITY PROFILE AT DIFFERENT PH (15% SLES / 5% Betaine / 5% CMEA)



The viscosity of the surfactant system decreases as the pH of the sample becomes more basic

#### **DEGREE OF WHITENESS**



Darker	Lighter
--------	---------

#### **FORMULATION**

#### **CONDITIONING PEARLIZED SHAMPOO**

MATERIALS	INCI NAME	%
Water	Aqua	q.s
Polyquat-10		0.50
Glysoft SF	Cocoglycerides	1.00
Methylglycinediacetic Acid	Methylglycinediacetic Acid	0.10
Sufrasoft A0100	Cocamidopropylamine Oxide	8.00
Sufrasoft HS100	Cocamidopropyl Hydroxysultaine	20.00
Suframide 307	Cocamide Methyl MEA	2.0
Phenoxyethanol (and) Ethylhexylgycerin	Phenoxyethanol (and) Ethylhexylgycerin	0.80
Fragrance		0.60
Citric Acid	Citric Acid	0.20
Pearlux PB10	Potassium Cocoate (and) col Distearate (and) Cocamide MEA	2.00

PROCEDURE TOTAL: 100

In a clean container, disperse Polyquat-10 in water, then mix **Glysoft SF**, and Methylglycinediacetic Acid until homogeneous. Expect rise in viscosity.

Load Sufrasoft A0100, Sufrasoft HS100, and Surfamide 307 one at a time with gentle mixing to prevent bubble formation.

Lastly, add Phenoxyethanol (and) Ethylhexylgycerin , Fragrance, Citric Acid and, Pearlux PB10. Mix until homogeneous.



## Sufraquat FS

**Coconut-Derived Esterquat** 



## Sufraquat FS

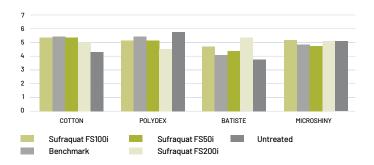
**Coconut-Derived Esterquat** 

#### DIALKYLESTER AMMONIUM METHOSULFATE

Coconut-derived esterquat used as an active for fabric softener. It provides excellent smoothness on various types of fabric by getting rid of static. It does not build up on clothes, promoting good rewetting ability.



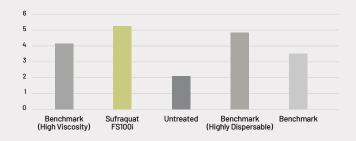
VARIANTS	FUNCTION	END-PRODUCT APPEARANCE	EASE OF <b>HANDLING</b>	END-PRODUCT VISCOSITY
Sufraquat FS25i	High active for very low-viscosity formulations	Translucent Liquid		
Sufraquat FS50i	Easily processable, non-viscosity building	Slightly Translucent		
Sufraquat FS100i	Easily processable, medium-viscosity building	Opaque White		
Sufraquat FS200i	Low-dosage, high-viscosity formulations	Opaque White		8 8 8 8



#### **CLOTH SOFTNESS**

**Sufraquat FS100i, FS50i,** and Benchmark (High Viscosity) are comparable in softening cotton. Benchmark (High Viscosity) is better in polydex fabric.

**Sufraquat FS100i and FS200i** are better in batiste and microshiny fabrics.



#### **SCENT RETENTION**

**Sufraquat FS100i** outperformed Benchmark (High Viscosity), Benchmark (Highly Dispersable) and Benchmark in retaining scent in the fabric.



#### WRINKLE REDUCTION

Sufraquat FS50i has the best performance in cotton fabric. Sufraquat FS200i has the best performance in polydex fabric. Sufraquat FS100i has the best performance in batiste fabric.





## Sufraquat BK

**Coconut-Derived Disinfectant** 

Potent broad-spectrum disinfectant

Compatible for various surfaces

Safe and easy to use







## Sufraquat BK

#### **Coconut-Derived Disinfectant**

#### **BENZALKONIUM CHLORIDE**

Potent, long-lasting, and broad-spectrum disinfecting active based on quaternary benzalkonium chloride salt. It is coconut-derived, biodegradable, and non-toxic to users and the environment. **Sufraquat BK** is optimal for cleaning facilities, equipment, and surfaces.

#### **APPLICATIONS**







Home Cleaning Products & Toiletries



Restaurants and other I&I

#### **FEATURES & BENEFITS**



Highly effective with short contact time



Easy to use and incorporate in formulations



Safe to use and mild on skin



Plant-Based



Paraben Cri Free



Cruelty-Free & Vegan

VARIANT	
SUFRAQUAT BK80	
SUFRAQUAT BK50	

#### PERCENT ACTIVE

80% Active 50% Active

RECOMMENDED DOSAGE

0.125% | 0.025%\*

0.2% | 0.04%\*

\*For no-rinse application in food industry

#### THIRD PARTY LABORATORY TEST RESULTS

TEST ORGANISM	CFU/ML (CONTROL)	CFU/ML AT 5 MINUTES CONTACT TIME	% KILL
Escherichia coli ATCC 25922	6.6 x 10 <sup>8</sup>	<1	99.99%
Pseudomonas aeruginosa ATCC 19429	8.4 x 10 <sup>9</sup> est	24	99.99%
Staphylococcus aureus ATCC 12600	1.4 x 10 <sup>9</sup>	<1	99.99%
Salmonella enterica ATCC 14028	1.1 x 10 <sup>10</sup> est	<1	99.99%
Listeria monocytogenes ATCC 19115	1.0 x 10 <sup>10</sup> est	<1	99.99%







## NatPro8000

Natural Preservative



### NatPro 8000

#### **Broad-spectrum Preservative & Refatting Agent**

#### GLYCERYL CAPRYLATE, GLYCERYL CAPRATE, GLYCERYL LAURATE

**NatPro 8000** is a broad-spectrum natural preservative and antimicrobial active. This material is a multi-functional ingredient since it also imparts skin refattening and moisturizing. This product is also a natural solution to replacing and boosting the efficacy of regulated preservatives such as isothiozolines, benzyl benzoate, hydantoins, and phenoxyethanols. NatPro 8000 is clinically proven to be mild, gentle, and, hypoallergenic.

#### FEATURES AND BENEFITS



Natural preservative



Natural co-emulsifier & superfatting active



Effective at pH range of 4.0 – 7.0



Light color and low odor

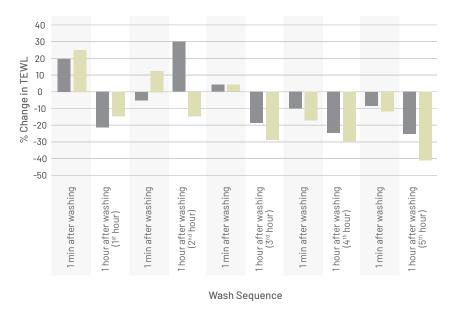
#### THIRD PARTY LABORATORY TEST RESULT

#### DETERMINATION OF MINIMUM INHIBITION CONCENTRATION

	BACILLUS SP. From Cosmetics)	S. AUREUS	E. COLI	K. PNEUMONIEA	E. AEROGENES	C. ALBICANS
2.00%	-	-	-	-	-	-
1.50%	-	-	-	-	-	-
1.00%	-	-	-	-	-	-
0.70%	-	-	-	-	-	-
0.50%	-	-	-	-	-	-
0.00%	+	+	+	+	+	+

Minimum inhibitory concentration of **NatPro 8000** against 6 most common microbes that cause cosmetic formulation spoilage. The microdilution method was employed in this study.

#### **ENHANCING THE SKIN'S BARRIER AND MOISTURE**



The graph above illustrates the Trans-epidermal Water Loss (TEWL) data resulting from hourly hand washing using soap samples, both with and without the inclusion of **Natpro 8000**. The data is presented as a percentage change, wherein lower TEWL values indicate improved skin moisture retention and a stronger skin barrier function.

10% Potassium Soan with 0.5%

Coconut-derived Antimicrobial Active

#### AS ACTIVE FOR ALCOHOL-FREE DISINFECTANTS

A 1% solution of **NatPro 8000** exhibits a consistent 100% bactericidal efficacy against common hand bacteria, including dangerous pathogens such as Klebsiella pneumoniae and Escherichia coli. These findings underscore its effectiveness as a reliable antibacterial agent, offering a dependable solution for robust hand hygiene and maximum protection.

#### **SAMPLE FORMULATION**

#### **ALCOHOL-FREE SANITIZER**

MATERIALS	INCI NAME	%
Water	Aqua	q.s
NatPro 8000	Glyceryl Caprylate, Glyceryl Caprate, Glyceryl Laurate	1.25
Solubilizer	PEG-40 Hydrogenated Castor Oil	1.35
Fragrance		0.10
	TOTA	AL: 100

#### PROCEDUR

Load NatPro 8000, PEG-40 Hydrogenated Castor Oil and the fragrance in a clean container.

Homogenize the bulk.

Load water in the container.

Mix until a translucent consistency is obtained.





10% Potassium Soap only

## Sufravon SN100

**Coconut-based Soap Noodles** 



### Sufravon SN100

#### **Coconut Surfactant**

#### SODIUM COCOATE

Sufravon SN100 is a 100% coconut-derived soap noodles. It contains natural glycerin from coconut oil that acts as a humectant to balance and maintain the natural moisture of the skin. It can be used in the formulation of different toiletries and beauty bar soaps. It produces white, creamy and fine lather.



#### **APPLICATIONS**

- Bar Shampoo
- Body Bar Soap
- Beard Bar Cleanser
- Dishwashing Rounds
- Laundry Soap

#### **CRACKING EVALUATION**



80/20 Soap

Score: 0



Sufravon SN100

Score: 1

According to the Bar Soap Evaluations, Sufravon SN100 received a face cracking score of 1, which is considered acceptable.

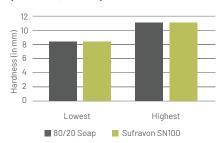
#### FACE CRACKING STYLE



Basis of method: Bar Soap Performance Evaluation Methods, Y. Yarovoy, A. J. Post. Unilever Research. 2016

#### **BAR SOAP HARDNESS**

#### (PENETROMETER)



From three penetrometer measurements, the minimum and maximum values were taken to assess hardness. Both bar soap samples produced identical minimum and maximum readings, indicating they are comparable in terms of hardness.

While there is no fixed range that determines the optimal soap hardness, it is an indication of the soap's malleability when held by consumers and the quality of the final product.

#### **MUSHINESS**



	Sufravon SN100	80/20 Soap
Initial Weight of Bar	132.20	129.90
Final Weight of Bar	123.75	121.44
Weight of Mush	8.45	8.46
Mush Weight Fraction	0.06	0.07
% Difference	-6.39	-6.51

It is noted that **Sufravon SN100** bar soap is much softer after the first few hours of immersion, but the amount of mush is the same after 24 hours even for the 80/20 bar soap.

#### **FOAM STRUCTURE**





	SN100	Soap
Bubble Count/mm^2	43.003	41.372
Mean Bubble Area (in μ^2)	23254	24171
Min. Bubble Area (in μ^2)	4832	4832
Max. Bubble Area (in μ^2)	188531	493402

Sufravon

80/20

Foam Structure Image

Using DFA 100 Dynamic Foam Analyzer, we compared the foam characteristics of **Sufravon SN100** and 80/20 Soap Noodles. **Sufravon SN100** can give you <u>creamier foam with smaller bubbles</u> even after 5 minutes of use.

#### SAMPLE FORMULATION

**BEAUTY BAR** 

MATERIALS	INCI NAME	%
Water	Aqua	28.00
Glysoft RG	Glycerin	30.0
Sufravon SN100	Sodium Cocoate	40.0
Fermented Honey	Zymomonas Ferment Extract	0.50
Snail Secretion Filtrate	Snail Secretion Filtrate	0.50
Fragrance	Fragrance	1.00
TOTAL: 100		L: 100

#### PROCEDURE

In a clean container, combine water and Glysoft RG. Heat the mixture, keeping the temperature within the 75–80°C range. When the mixture reaches 75°C, gradually introduce Sufravon SN100 in its powdered form, stirring continuously. Continue heating until you achieve a clear, fully dissolved mixture. To minimize foaming, modulate the stirring speed as needed.

Upon reaching a homogeneous state, reduce the temperature to  $60^{\circ}$ C. At this point, incorporate Honey Ferment and Fragrance into the mixture. Stir continuously for an additional 5 minutes to ensure complete uniformity.

Finally, pour the thoroughly mixed substance into your chosen mold to allow it to cure.

