

Hello Sunshine

Sun Care Examples

from
Hallstar Beauty Formulation Labs

Fall 2021



HALLSTAR 
B E A U T Y

General Index

Introduction.....4

Mineral Sunscreens

Sun-Safe Scalp Protection Powder SPF 30 #JZ13-285.....6

Pure Moisture Balm SPF 15 #JZ14-120.....8

Natural Anti-Inflammatory Sunscreen SPF 40 #JZ14-140.....10

SPF 30 Let It Zinc In #JZ14-151.....12

Natural Sunscreen Butter SPF 50 #JZ14-158.....14

Mineral BB Cream SPF 60 #JZ14-160.....16

Natural High UV Protection Cream SPF 50 #JZ14-172B.....18

Natural ZnO Sunscreen SPF 30 #JZ14-173B20

Mineral Waterless Sunscreen Stick SPF 30 #JZ14-176.....22

Organic UV Filter Sunscreens

Three-O-Free Olive Daily Sunscreen Spray #JZ13-109.....26

Anti-Blue Light Daily Primer SPF 30 #JZ13-115.....28

SPF 50 W/O Dream Cream #JZ14-15.....30

Multifunction Daily Stick #JZ14-39.....32

Facial Moisturizer Cream SPF 50 #JZ14-49B.....34

*Patented and Patent Pending
The information presented herein is believed to be accurate and reliable, but no warranty or guarantee, expressed or implied, is made regarding the information or the performance of any product. Further, nothing contained herein shall be taken as any inducement or recommendation to use, manufacture or sell that may infringe any patents or any other proprietary rights now or hereafter in existence, nor to imply compliance with any regulatory requirements

Hallstar is a sun care pioneer. As the market moves towards broader and higher sun protection, we help manufacturers develop globally acceptable sun protection products that are aligned with evolving consumer preferences and fit within regional limitations on allowable ingredients, levels and combinations.

The decreasing number of globally-approved UV filters is a challenge to formulators, particularly when developing high SPF products. Hallstar has years of experience creating formulations with photostabilizers that optimize filter performance – and importantly, are already clinically validated to meet FDA sunscreen regulations. In both inorganic or organic sunscreens, Hallstar's sun care ingredients enable:

Efficiency:

- Improved performance of classic UV filters such as avobenzene, TiO₂ and ZnO
- Fewer discrete filters and an overall lower percentage of filter ingredient needed for equal or better performance
- More formulating options for complying with changing regulatory landscape

Safety:

- Avoidance of potential side effects from filter decomposition
- Elimination of photo-generated ROS

Elegance:

- Better skin feel as a result of fewer required filters
- More formulation latitude for sensorial enhancing ingredients

The following formulations are great examples of high-performing, safe and elegant sun care using Hallstar ingredients. Want to learn more? Visit www.hallstarbeauty.com/sun-care.

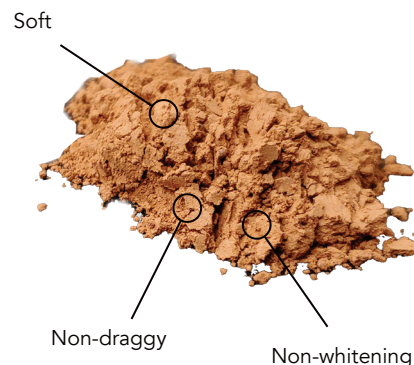
Mineral Sunscreens



Sun-Safe Scalp Protection Powder SPF 30

Formula Number: JZ13-285

Hats off to safeguarding your scalp in the sunshine! This natural, lightly tinted powder sunscreen provides 100% non-nano mineral broad spectrum UV protection. As demonstrated here, zinc oxide dispersion HallBrite EZ-FLO ZDX can be easily combined with different powders to form a uniform system. Sensolene Light ET introduces superior emolliency with antioxidant benefits. Biochemica® Argan Oil Refined improves moisturization, softens rough, dry skin, and imparts luster and strength to hair. Sun-Safe Scalp Protection Powder was subjected to *in vitro* analysis and delivered SPF ~33, PFA (PPD) ~14, UVA1/UV = 0.94, and critical wavelength 387nm.



HallBrite® EZ-FLO ZDX

Easy to use; highly ZnO dispersible.

Biochemica® Argan Oil Refined

Improves moisturization, softens rough, dry skin, and imparts luster and strength to hair.

Sensolene® Light ET

Provides an extremely light touch with good antioxidant benefits.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Mica		up to 100	Filler
	Silica (spherical, 12 µm)		8.00	Slip Modifier
B	Argania Spinosa Kernel Oil	Biochemica® Argan Oil Refined	1.00	Emollient
	Ethyl Olivatate, Olea Europaea (Olive) Leaf Extract	Sensolene® Light ET	1.00	Multifunctional Emollient
C	Zinc Oxide (and) Jojoba Esters		17.00	UV Filter / Sunscreen Agent
	Titanium Dioxide [Titanium Dioxide] (CI 77891), Triethoxycaprylylsilane		a.n.	Pigment
	Iron Oxides (yellow) (CI 77492), Triethoxycaprylylsilane		a.n.	Pigment
	Iron Oxides (red) (CI 77491), Triethoxycaprylylsilane		a.n.	Pigment
	Iron Oxides (black) (CI 77499), Triethoxycaprylylsilane		a.n.	Pigment
	Preservative		a.n.	Preservative
	Preservative		a.n.	Preservative
	BHT		0.02	Antioxidant Agent
D	Zinc Oxide [Zinc Oxide] (60%), Butyloctyl Salicylate, Triceteareth-4 Phosphate, Triethoxycaprylylsilane	HallBrite® EZ-FLO ZDX	14.00	UV Filter/Sunscreen Agent / Carrier System

Preparative procedure

1. To the main vessel add phase A and mix until uniform.
2. Slowly add phase B to phase A with mixing.
3. Add phase C into phase AB. Mix well until color is uniform.
4. Slowly add phase D in with mixing until uniform.

Product characteristics (25°C)

- **Appearance:** Tinted powder

Pure Moisture Balm SPF 15

Formula Number: JZ14-120

This convenient-to-use sunscreen stick is loaded with natural ingredients from all of Hallstar Beauty's specialty product lines. Pure Moisture powerfully protects skin and lips from multiple environmental aggressors, but its gentle, hydrating feel and citrusy fragrance make it ideal for regular sunscreen 'touch-ups.' *In vitro* analysis suggests SPF ~ 16, PFA (PPD COLIPA 2011) ~ 6, UVA1/UV = 0.79, and critical wavelength 370 nm.



Biochemica® Olive Oil-Ultra Refined

Exhibits excellent spreadability on the skin; helps to lighten and soften the final product's texture.

Sensolene® Light ET

Provides an extremely light touch with good antioxidant benefits.

SolaPure™ Glo

Provides anti-inflammatory, antioxidant and anti-microbial properties, leverages curcumin's benefits to improve sun protection's SPF and PFA performance, control hyperpigmentation and promote overall skin wellbeing.

Biochemica® Lemon Butter

A very effective free radical scavenger with a clean and refreshing scent.

BLUE Oléoactif®

Effectively protects cells from urban pollution and blue light; boosts cells' defense system.

Olivem® 900

Provides structure in oil phase to balance product hardness.

SolaPure™ ZnO

Highly compatible within anhydrous system; very low whitening effect.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Olea Europaea (Olive) Fruit Oil	Biochemica® Olive Oil-Ultra Refined	up to 100	Emollient
	Polyhydroxystearic Acid		0.40	Dispersing Agent
	Ethyl Olivatate, Olea Europaea (Olive) Leaf Extract	Sensolene® Light ET	5.00	Multifunctional Emollient
	Glycine Soja (Soybean) Oil, Polyglyceryl-3 Diisostearate, Oryza Sativa (Rice) Extract, Oryza Sativa (Rice) Germ Extract	BLUE Oléoactif®	1.00	Active Ingredient
	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	18.00	Multifunctional Emollient
	Prunus Amygdalus Dulcis (Sweet Almond) Oil, Hydrogenated Vegetable Oil, Citrus Limon (Lemon) Peel O	Biochemica® Lemon Butter	5.00	Emollient / Natural Fragrance
B	Zinc Oxide	SolaPure™ ZnO	10.00	UV Filter / Sunscreen Agent
C	Sorbitan Olivatate	Olivem® 900	5.00	Structuring Agent
	Helianthus Annuus (Sunflower) Seed Wax		8.00	Structuring Agent
	Silica (spherical, 12 µm)		5.00	Deoiling Agent

Preparative procedure

1. In the main vessel, combine and mix phase A and heat up to 80°C with mixing.
2. Add phase B in with mixing until uniform, then add phase C in.
3. After uniform, start cooling. Stop mixing when it is below 60°C.

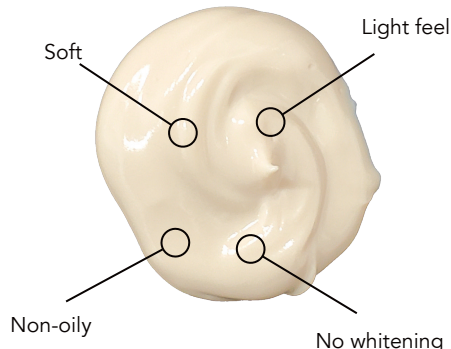
Product characteristics (25°C)

- **Appearance:** Smooth stick

Natural Anti-Inflammatory Sunscreen SPF 40

Formula Number: JZ14-140

This formulation was designed to provide SPF 40 performance using zinc oxide as the sole UV filter. It is water resistant and preservative free. SolaPure™ Glo delivers in moisturization, skin barrier function, and antioxidant benefits. *In vitro* analysis and delivered SPF ~45, PFA (PPD) ~15, UVA1/UV = 0.82, critical wavelength 371nm.



Biochemica® Olive Oil-Ultra Refined

Exhibits excellent spreadability on the skin; helps create a lighter feel.

Sensolene® Light ET

Provides an extremely light touch with good antioxidant benefits.

SolaPure™ Glo

Provides anti-inflammatory, antioxidant and anti-microbial properties, leverages curcumin's benefits to improve sun protection's SPF and PFA performance, control hyperpigmentation and promote overall skin wellbeing.

Olivem® 2090

Functions as dispersing agent and improves skin feel.

SolaPure™ ZnO

Highly compatible within anhydrous system; very low whitening effect.

Olivem® 900

Provides structure in oil phase to balance product hardness.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	10.00	Multifunctional Emollient
	Ethyl Olivatate, Olea Europaea (Olive) Leaf Extract	Sensolene® Light ET	5.00	Multifunctional Emollient
	Olea Europaea (Olive) Fruit Oil	Biochemica® Olive Oil-Ultra Refined	up to 100	Emollient
	Polyhydroxystearic Acid		0.60	Dispersing Agent
	Polyglyceryl-4 Olivatate/Polyricinoleate	Olivem® 2090	1.20	Dispersing Agent
	Zinc Oxide	SolaPure™ ZnO	22.00	UV Filter /Sunscreen Agent
B	Sorbitan Olivatate	Olivem® 900	6.00	Structuring Agent
	Silica (spherical, 12 µm)		5.00	Deoiling Agent

Preparative procedure

1. To the main vessel add phase A and start mixing, and then heat to 80°C.
2. Add phase B into phase A and mix until uniform.
3. After 5 minutes start cooling batch and when batch is < 70°C, pour into chosen container and cool down.

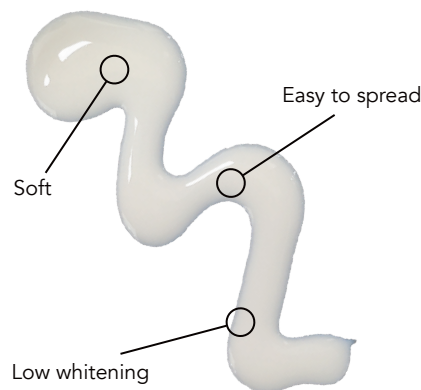
Product characteristics (25°C)

- **Appearance:** Soft gel

SPF 30 Let It Zinc In

Formula Number: JZ14-151

This natural, non-whitening ZnO sunscreen cream provides SPF 30 protection without using organic UV filters. Biomimetic Olivem® 2090 is the sole emulsifier in its cold-process W/O emulsification. The addition of Hallstar Beauty's SolaPure™ Glo enhances sunscreen efficacy and contributes moisturizing and antioxidant properties. *In vitro* analysis suggests SPF ~ 31, PFA (PPD COLIPA 2011) ~ 11, UVA1/UV = 0.80, and critical wavelength 371 nm.



Biochemica® Sweet Almond Oil

Light natural oil with excellent spreadability.

Biochemica® Olive Oil-Ultra Refined

Exhibits excellent spreadability on the skin; helps to lighten and soften the final product's texture.

SolaPure™ Glo

Provides anti-inflammatory, antioxidant and anti-microbial properties, leverages curcumin's benefits to improve sun protection's SPF and PFA performance, control hyperpigmentation and promote overall skin wellbeing.

Olivem® 2090

Used as a single emulsifier with cold process.

SolaPure™ ZnO C

High compatibility with W/O systems; very low whitening effect.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Prunus Amygdalus Dulcis (Sweet Almond) Oil	Biochemica® Sweet Almond Oil	22.00	Carrier
	Olea Europaea (Olive) Fruit Oil	Biochemica® Olive Oil-Ultra Refined	15.00	Carrier
	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	2.00	Multifunctional Emollient
	Polyhydroxystearic Acid		0.80	Dispersing Agent
	Polyglyceryl-4 Olivatate/Polyricinoleate	Olivem® 2090	3.50	Multi-functional Cold Process Emulsifier
B	Zinc Oxide, Triethoxycaprylylsilane	SolaPure™ ZnO C	20.00	UV Filter / Sunscreen Agent
C	Glycerin		2.50	Humectant Thickener
	Xanthan Gum (pharma grade)		0.20	(Aqueous)
D	Water (Aqua)		up to 100	Volatile Carrier
	Sodium Chloride		1.50	Stabilizing Agent
	Preservative		a.n.	Preservative
E	Silica (spherical, 12 µm)		3.00	Deoiling Agent

Preparative procedure

1. To the main vessel, add phase A with mixing until uniform, then add phase B and mix until uniform.
2. To a secondary vessel add premixture of phase C, and then add phase D with mixing until uniform.
3. When AB and CD phases are homogeneous, very slowly add phase CD to phase AB.
4. After combination, strongly mix or homogenize for 10 minutes.
5. Add phase E and mix until uniform.

Product characteristics (25°C)

- **Appearance:** Smooth lotion
- **Viscosity** (20 rpm, Brk, RV DV-II, T-D, after 24h at room temperature; mPa·s) 4500 - 7000

Natural Sunscreen Butter SPF 50

Formula Number: JZ14-158

This 100% natural formulation was designed to provide SPF 50 performance. It is water resistant and preservative free. SolaPure™ Glo offers moisturization, skin barrier function, and antioxidant benefits. *In vitro* analysis and delivered SPF ~54, PFA (PPD) ~18, UVA1/UV = 0.83, critical wavelength 373nm.



Biochemica® Olive Oil-Ultra Refined

Exhibits excellent spreadability on the skin; helps to lighten and soften the final product's texture.

Sensolene® Light ET

Provides an extremely light touch with good antioxidant benefits.

SolaPure™ Glo

Provides anti-inflammatory, antioxidant and anti-microbial properties, leverages curcumin's benefits to improve sun protection's SPF and PFA performance, control hyperpigmentation and promote overall skin wellbeing.

SolaPure™ ZnO

Highly compatible within anhydrous system; very low whitening effect.

Olivem® 2090

Functions as dispersing agent and improves skin feel.

Olivem® 900

Provides structure in oil phase to balance product hardness.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Olea Europaea (Olive) Fruit Oil	Biochemica® Olive Oil-Ultra Refined	up to 100	Emollient
	Polyhydroxystearic Acid		0.80	Dispersing Agent
	Ethyl Olivatate, Olea Europaea (Olive) Leaf Extract	Sensolene® Light ET	5.00	Multifunctional Emollient
	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	12.00	Multifunctional Emollient
	Polyglyceryl-4 Olivatate/Polycricinoleate	Olivem® 2090	1.50	Dispersing Agent
	Zinc Oxide	SolaPure™ ZnO	25.00	UV Filter /Sunscreen Agent
B	Titanium Dioxide [Titanium Dioxide]		3.00	UV Filter /Sunscreen Agent
	Sorbitan Olivatate	Olivem® 900	5.00	Structuring Agent
	Silica (spherical, 12 µm)		8.00	Deoiling Agent

Preparative procedure

1. To the main vessel add phase A and start mixing, and then heat to 80°C.
2. Add phase B into phase A and mix until uniform.
3. After 5 minutes start cooling batch and when batch is < 70°C, pour into chosen container and cool down.

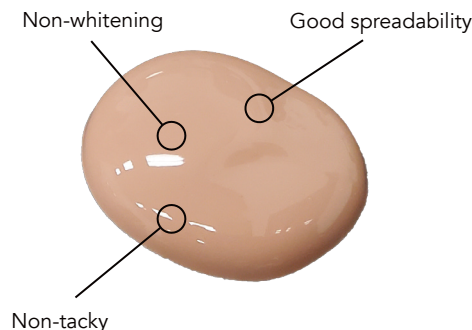
Product characteristics (25°C)

- **Appearance:** Off-white cream

Mineral BB Cream SPF 60

Formula Number: JZ14-160

This mineral BB cream provides SPF 60 sun protection without using organic UV filters. Eco-friendly Olivem® 2090 is the only W/O emulsifier in this cold process. *In vitro* analysis suggests SPF ~ 61, PFA (PPD COLIPA 2011) ~ 17, UVA1/UV = 0.79, and critical wavelength 375 nm. (SPF 50 for EU).



Biochemica® Sweet Almond Oil

Exhibits excellent spreadability on the skin; helps to balance thickness and hardness in finished products.

Olivem® 2090

Used as a single emulsifier with cold process.

SolaPure™ ZnO

Highly compatible with W/O system; very low whitening.

HallBrite® BHB

A good pigment wetter and dispersant for zinc oxide; provides nice emolliency in mineral system.

HallBrite® T-97

Typically contributes about 1.5 – 2.0 SPF units per percent utilized in sunscreen formulations, and also contributes appreciably to shorter wavelength UVA protection.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Prunus Amygdalus Dulcis (Sweet Almond) Oil	Biochemica® Sweet Almond Oil	18.00	Emollient
	Polyglyceryl-4 Olivatate/Polyricinoleate	Olivem® 2090	3.50	Multifunctional Cold Process Emulsifier
	Polyhydroxystearic Acid		0.75	Dispersing Agent Emollient / Sunscreen
	Butyloctyl Salicylate	HallBrite® BHB	5.00	Emollient / Sunscreen Solvent
	Dimethicone (5 cSt)		1.50	Emollient
B	Zinc Oxide	SolaPure™ ZnO	20.00	UV Filter / Sunscreen Agent
	Titanium Dioxide, Dimethicone	HallBrite® T-97	4.00	UV Filter / Sunscreen Agent
	Silica (spherical, 12 µm)		3.00	Deoiling Agent
C	Iron Oxides (yellow) (CI 77492), Triethoxycaprylylsilane		a.n.	Pigment
	Iron Oxides (red) (CI 77491), Triethoxycaprylylsilane		a.n.	Pigment
	Iron Oxides (black) (CI 77499), Triethoxycaprylylsilane		a.n.	Pigment
D	Glycerin		3.00	Humectant
	Xanthan Gum (pharma grade)		0.20	Thickener (Aqueous) / Emulsion Stabilizer
E	Water (Aqua)		up to 100	Volatile Carrier
	Sodium Chloride		1.50	Stabilizing Agent
	Preservative		up to 100	Preservative

Preparative procedure

1. To the main vessel, add phase A with mixing until uniform, then add phase B and mix until uniform. Add C phase and mix until uniform.
2. To a secondary vessel add premixture of phase D and phase E with mixing until uniform.
3. When ABC and DE phases are homogeneous, very slowly add phase DE to phase ABC and strongly mix or homogenize until uniform.

Product characteristics (25°C)

- **Appearance:** Tinted cream
- **Viscosity** (20 rpm, Brk, RV DV-II, T-D, after 24h at room temperature; mPa·s) 15000 - 25000

Natural High UV Protection Cream SPF 50

Formula Number: JZ14-172B

This water-in-oil, zinc oxide-only sunscreen cream provides SPF 50 sun protection without using organic UV filters. High-performing Olivem® 2090 is the only emulsifier used in this cold process. SolaPure® Glo is a multifunctional emollient with antioxidant benefits. Moisturizing Biochemica® Sweet Almond Oil and structuring HallStar® Zinc Stearate are great agents within this W/O system. *In vitro* analysis suggests SPF ~ 55, PFA (PPD COLIPA 2011) ~ 18, UVA1/UV = 0.82, and critical wavelength 373 nm.



Biochemica® Sweet Almond Oil

Light natural oil with excellent spreadability.

SolaPure™ Glo

Provides anti-inflammatory, antioxidant and anti-microbial properties; leverages curcumin's benefits to improve sun protection's SPF and PFA performance, control hyperpigmentation and promote overall skin wellbeing.

Olivem® 2090

Used as a single emulsifier with cold process.

SolaPure™ ZnO

Highly compatible within anhydrous system; very low whitening effect.

HallStar® Zinc Stearate

Thickening agent for oil phase.

HallBrite® BHB

A good pigment wetter and dispersant for zinc oxide; provides nice emolliency in mineral system.

SolaStay® S1

Mitigates the photocatalytic and ROS-generating activities of the oxides and improves sunscreen performance.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Prunus Amygdalus Dulcis (Sweet Almond) Oil	Biochemica® Sweet Almond Oil	26.00	Emollient
	Butyloctyl Salicylate	HallBrite® BHB	5.00	Emollient
	Ethylhexyl Methoxycrylene	SolaStay® S1	3.00	Photostabilizer
	Polyglyceryl-4 Olivat/Polyricinoleate	Olivem® 2090	4.00	Multifunctional Cold Process Emulsifier
	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	6.00	Multifunctional Emollient
B	Zinc Oxide	SolaPure™ ZnO	25.00	UV Filter / Sunscreen Agent
C	Zinc Stearate	HallStar® Zinc Stearate	1.00	Thickener
D	Water (Aqua)		up to 100	Volatile Carrier
	Glycerin		2.00	Humectant
	Sodium Chloride		1.00	Stabilizing Agent
	Preservative		a.n.	Preservative

Preparative procedure

1. To the main vessel, add phase A with mixing until uniform. Heat up to melt SolaPure™ Glo if needed.
2. Add phase B into phase A, and mix strongly until uniform, then add phase C and mix until uniform.
3. To a secondary vessel add phase D with mixing.
4. When ABC and D phases are homogeneous, very slowly add phase D to phase ABC.
5. After combination, strongly mix or homogenize until uniform.

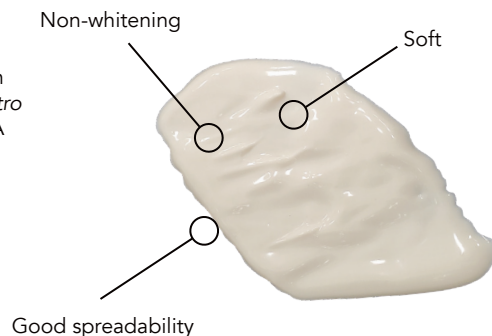
Product characteristics (25°C)

- **Appearance:** Off-white cream
- **Viscosity:** (Brk, DVII, T-D, 20 rpm, after 24 h at room temperature; mPa·s): 15000 - 25000

Natural ZnO Sunscreen SPF 30

Formula Number: JZ14-173B

This simple process natural ZnO sunscreen provides SPF 30 sun protection without using organic UV filters. PEG-free Olivem 2090 is an only W/O emulsifier in this cold process. *In vitro* analysis suggests SPF ~ 32, PFA (PPD COLIPA 2011) ~ 11, UVA1/UV = 0.83, and critical wavelength 372 nm.



SolaPure™ Glo

Provides anti-inflammatory, antioxidant and anti-microbial properties, leverages curcumin's benefits to improve sun protection's SPF and PFA performance, control hyperpigmentation and promote overall skin wellbeing.

Olivem® 900

Used as a single emulsifier with cool process.

SolaPure™ ZnO

Highly compatible within anhydrous system; very low whitening effect.

HallStar® Zinc Stearate

Thickening agent for oil phase.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Olea Europaea (Olive) Fruit Oil	Biochemica® Olive Oil-Ultra Refined	35.00	Carrier
	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	6.00	Multifunctional Emollient
	Polyglyceryl-4 Olivatate/Polyricinoleate	Olivem® 2090	4.00	Multifunctional Cold Process Emulsifier
B	Zinc Oxide	SolaPure™ ZnO	20.00	UV Filter / Sunscreen Agent
	Zinc Stearate	HallStar® Zinc Stearate	1.50	Thickener
C	Glycerin		2.00	Humectant
	Water (Aqua)		up to 100	Volatile Carrier
	Sodium Chloride		1.00	Stabilizing agent
	Preservative		a.n.	Preservative

Preparative procedure

1. To the main vessel, add phase A with mixing until uniform, then add phase B and mix until uniform.
2. Add phase C into phase AB, and mix well until uniform.
3. To a secondary vessel add phase C with mixing until uniform.
4. When AB and C phases are homogeneous, very slowly add phase C to phase AB.
5. After combination, strongly mix or homogenize for 10 minutes.

Product characteristics (25°C)

- **Appearance:** White cream
- **Viscosity:** (20 rpm, Brk, RV DV-II, T-D, after 24h at room temperature; mPa·s) 17000 - 27000

Mineral Waterless Sunscreen Stick

SPF 30

Formula Number: JZ14-176

This non-nano mineral Waterless Sunscreen Stick was designed to provide SPF 30 performance. It is 100% natural, water resistant and preservative free. Biochemica® Turmeric Butter provides anti-inflammatory, anti-pollution, moisturizing benefits. *In vitro* analysis delivered SPF ~35, PFA (PPD) ~19, UVA1/UV = 0.95, critical wavelength 383nm.



Biochemica® Turmeric Butter

Anti-inflammatory, anti-pollution, moisturizing agent.

Biochemica® Olive Oil-Ultra Refined

Exhibits excellent spreadability on the skin; helps to lighten and soften the final product's texture.

Sensolene® Light ET

Provides an extremely light touch with good antioxidant benefits.

Olivem® 900

Provides structure in oil phase to balance product hardness.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Butyrospermum Parkii (Shea) Butter, Elaeis Guineensis (Palm) Butter, Cocos Nucifera (Coconut) Oil, Simmondsia Chinensis (Jojoba) Seed Oil, Curcuma Longa (Turmeric) Root Extract, Bisabolol	Biochemica® Turmeric Butter	20.00	Emollient
	Olea Europaea (Olive) Fruit Oil	Biochemica® Olive Oil-Ultra Refined	up to 100	Emollient
	Ethyl Olivatate, Olea Europaea (Olive) Leaf Extract	Sensolene® Light ET	2.00	Multifunctional Emollient
	Polyhydroxystearic Acid		0.80	Dispersing Agent
	Zinc Oxide (and) Jojoba Esters		20.00	UV Filter / Sunscreen Agent
B	Helianthus Annuus (Sunflower) Seed Wax		13.00	Structuring Agent
	Sorbitan Olivatate	Olivem® 900	4.80	Structuring Agent
	Silica (spherical, 12 µm)		8.00	Deoiling Agent
C	CI 77492 (and) Persea Gratissima (Avocado) Oil (and) Hydrogenated Vegetable Oil (and) Tocopherol		1.20	Pigment
	CI 77491 (and) CI 77499 (and) Persea Gratissima (Avocado) Oil (and) Hydrogenated Vegetable Oil (and) Tocopherol		0.36	Pigment
	CI 77499 (and) Persea Gratissima (Avocado) Oil (and) Hydrogenated Vegetable Oil (and) Tocopherol		0.12	Pigment

Preparative procedure

1. To the main vessel add phase A and start mixing, and then heat to 80°C.
2. Add phase B into phase A and mix until uniform.
3. After 5 minutes start cooling batch and when batch is < 70°C, pour into chosen container and cool down.
4. Add phase C and mix until uniform.

Product characteristics (25°C)

- **Appearance:** Tinted stick

[illegible]

HALLSTAR 
B E A U T Y

Organic UV Filter Sunscreens



Three-O-Free Olive Daily Sunscreen Spray

Formula Number: JZ13-109

This anti-photoaging sunscreen spray uses 0.5% multifunctional cold-process Olivem® 2020 without any other thickener and/or emulsifier. It provides SPF 30 UV protection, free from octinoxate, oxybenzone, octocrylene, ethanol and volatile silicones. Eco-active BLUE Oléoactif® provides blue light protection. Colipa Guideline(2011) delivered SPF ~32, PFA (PPD) ~11, UVA1/UV =0.79 and critical wavelength = 380 nm.



HallBrite® BHB

Provides sunscreen solvency and emolliency; dilutes UV package's high density to provide lighter skin feel.

SolaStay® S1

Provides very rapid and efficient excited state quenching of avobenzone, protecting it from photo-degradation and improving sunscreen performance.

Polycrylene®

Combined with SolaStay® S1 can provide very strong photoprotection of avobenzone for improved performance.

SolaFresh™

Provides good solvency and compatibility in UV filter package to improve sun protection performance.

BLUE Oléoactif®

Effectively protects cells from urban pollution and blue light; and boosts cells' defense system.

Olivem® 2020

0.5% of this naturally-derived cold process emulsifier is the only emulsifier used; provides a stable thin lotion.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Homosalate [Homosalate]		10.00	UV Filter / Sunscreen Agent
	Ethylhexyl Salicylate [Octisalate]		5.00	UV Filter / Sunscreen Agent
	Butyloctyl Salicylate	HallBrite® BHB	5.00	Sunscreen Solvent / Emollient
	Ethylhexyl Methoxycrylene	SolaStay® S1*	3.00	Photostabilizer
	Diethylhexyl 2,6-Naphthalate	SolaFresh™	6.00	Multifunctional Emollient
	Polyester-8	Polycrylene®	4.00	Photostabilizer
	VP/Hexadecene Copolymer		2.00	Film Former
	Glycine Soja (Soybean) Oil, Polyglyceryl-3 Diisostearate, Oryza Sativa (Rice) Extract, Oryza Sativa (Rice) Germ Extract	BLUE Oléoactif®	1.00	Active Ingredient
B	Butyl Methoxydibenzoylmethane [Avobenzone]		3.00	UV Filter /Sunscreen Agent
C	Water (Aqua)		up to 100	Volatile Carrier
	Glycerin		10.00	Humectant
	Caprylyl Glycol, Phenoxyethanol, Hexylene Glycol		1.00	Preservative
	Disodium EDTA		0.05	Chelating Agent
	Ethylhexyl Olivinate, Sodium Acrylates Copolymer, Polyglyceryl-4 Olivinate	Olivem® 2020	0.50	Thickener (Aqueous) / Emulsion Stabilizer

Preparative procedure

1. To a secondary vessel add phase A and start mixing. Heat up to 55 - 60°C and then add phase B with mixing until all solids are dissolved.
2. To the main vessel add phase C, start mixing until a smooth gel is formed.
3. When both phases are homogeneous, slowly add phase AB to phase C with prop mixing until uniform.

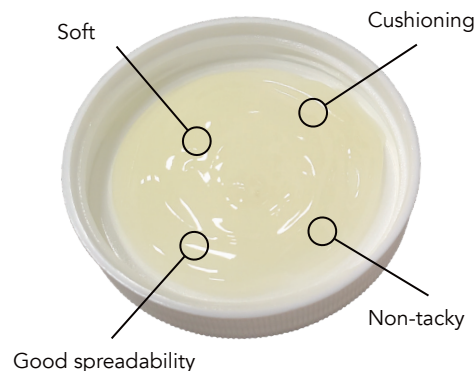
Product characteristics (25°C)

- **Appearance:** Light yellow lotion milk
- **Viscosity** (20 rpm, Brk, RV DV-II, T-D, after 24h at room temperature; mPa·s)
- **pH (as is):** 5.5-6.5

Anti-Blue Light Daily Primer SPF 30

Formula Number: JZ13-115

With its combination of natural BLUE Oléoactif, and Biochemica® Vitamin E Natural, this daily wear primer helps to delay skin aging, protects from daily external aggressions (e.g., UV rays, pollution, stress), reduces dark spots and provides anti-inflammatory and anti free radical efficacy. Guideline (2011) delivered SPF ~31, PFA (PPD) ~14 and UVA1/UV = 0.89. Critical wavelength = 380nm.



SolaStay® S1

Provides very rapid and efficient excited state quenching of avobenzone, protecting it from photo-degradation and improving sunscreen performance.

HallBrite® BHB

Provides sunscreen solvency and emolliency; dilutes high density from UV package to provide lighter skin feel.

Polycrylene®

Combined with SolaStay® S1 can provide very strong photoprotection of avobenzone for improved performance.

HallBrite® PSF

provides good compatibility for high polarity UV filters and silicone base to improve product stability and performances.

SolaFresh™

Provides good solvency and compatibility with UV filter package to improve sun protection performance.

Sensolene® Light ET

Provides an extremely light touch with good antioxidant benefits.

BLUE Oléoactif®

Effectively protects cells from urban pollution and blue light, and boosts their defense system.

Biochemica® Vitamin E Natural

A powerful biological antioxidant.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Ethylhexyl Salicylate [Octisalate]		5.00	UV Filter /Sunscreen Agent
	Homosalate [Homosalate]		10.00	UV Filter /Sunscreen Agent
	Butyloctyl Salicylate	HallBrite® BHB	5.00	Sunscreen Solvent / Emollient
	Ethylhexyl Methoxycrylene	SolaStay® S1	3.00	Photostabilizer
	Polyester-8	Polycrylene®	4.00	Photostabilizer
	Undecylcrylene Dimethicone	HallBrite® PSF	3.00	Photostabilizer
	Diethylhexyl 2,6-Naphthalate	SolaFresh™	5.00	Multifunctional Emollient
	Glycine Soja (Soybean) Oil, Polyglyceryl-3 Diisostearate, Oryza Sativa (Rice) Extract, Oryza Sativa (Rice) Germ Extract	BLUE Oléoactif®	1.00	Active Ingredient
	Tocopherol	Biochemica® Vitamin E Natural	0.50	Antioxidant Agent
	Ethyl Olivat, Olea Europaea (Olive) Leaf Extract	Sensolene® Light ET	5.00	Multifunctional Emollient
B	VP/Hexadecene Copolymer		2.00	Film Former
	Butyl Methoxydibenzoylmethane [Avobenzone]		3.00	UV Filter /Sunscreen Agent
C	Tribehenin		5.00	Gellant
	Isododecane (and) Dimethicone/Bis-Isobutyl PPG-20 Crosspolymer		up to 100	Emollient

Preparative procedure

- To a secondary vessel add phase A and heat to 70 - 80°. Add phase B with mixing until uniform, then add phase C.
- Start cooling mixing to room temperature.

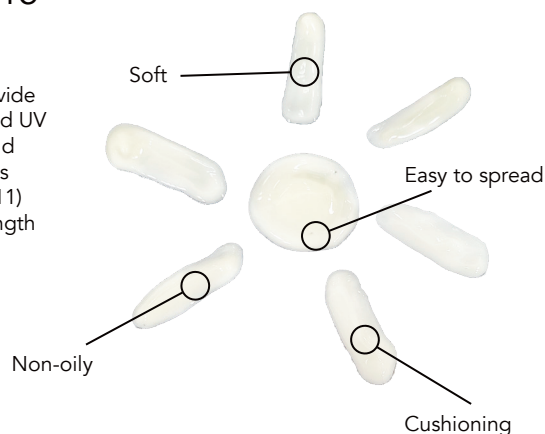
Product characteristics (25°C)

- Appearance:** Soft gel
- Viscosity** (20 rpm, Brk, RV DV-II, T-D, after 24h at room temperature; mPa-s): 7000-11000

SPF 50 W/O Dream Cream

Formula Number: JZ14-15

This SPF dream cream is designed to provide label SPF 50 performance with very limited UV filters. It is produced without high heat and has good water resistance. *In vitro* analysis suggests SPF ~ 54, PFA (PPD COLIPA 2011) ~22, UVA1/UV = 0.85, and critical wavelength 377 nm.



HallBrite® BHB

Provides sunscreen solvency and emolliency; dilutes UV package's high density to provide lighter skin feel.

SolaStay® S1

Provides very rapid and efficient excited state quenching of avobenzone, protecting it from photo-degradation and improving sunscreen performance.

Polycrylene®

Combined with SolaStay® S1, can provide very strong photoprotection of avobenzone for improved performance.

SolaFresh™

Provides good compatibility and solvency for UV filter package to improve sun protection performance.

Sensolene® Light ET

Provides an extremely light touch with strong antioxidant benefits.

SolaPure™ Glo

Provides anti-inflammatory, antioxidant and anti-microbial benefits, leverages curcumin's properties to improve sun protection's SPF and PFA performance, control hyperpigmentation and promote overall skin wellbeing.

Olivem® 2090

Used as a single emulsifier with cool process.

Hallstar® Zinc Stearate

Strong anticaking/anti-agglomeration agent.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Ethylhexyl Salicylate [Octisalate]		5.00	UV Filter / Sunscreen Agent
	Homosalate [Homosalate]		10.00	UV Filter / Sunscreen Agent
	Butyloctyl Salicylate	HallBrite® BHB	5.00	Sunscreen Solvent / Emollient
	Ethylhexyl Methoxycrylene	SolaStay® S1	3.00	Photostabilizer
	Polyester-8	Polycrylene®	4.00	Photostabilizer
	Diethylhexyl 2,6-Naphthalate	SolaFresh™	6.00	Multifunctional Emollient
	VP/Hexadecene Copolymer		1.00	Film Former
	Ethyl Olivatate, Olea Europaea (Olive) Leaf Extract	Sensolene® Light ET	5.00	Multifunctional Emollient
	Butyl Methoxydibenzoylmethane		3.00	UV Filter / Sunscreen Agent
	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	5.00	Multifunctional Emollient
B	Polyglyceryl-4 Olivatate/Polyricinoleate	Olivem® 2090	3.50	Multifunctional Cold Process Emulsifier
	Zinc Stearate	Hallstar® Zinc Stearate	2.50	Thickener
C	Water (Aqua)		up to 100	Volatile Carrier
	Glycerin		6.00	Humectant
	Magnesium Sulfate		1.50	Stabilizing Agent
	Preservative		a.n.	Preservative

Preparative procedure

1. To the main vessel, add phase A with mixing and heat up to 50°C.
2. After uniform, turn heat off and add phase B into phase A with mixing until uniform.
3. To a secondary vessel add phase C with mixing.
4. When AB and C phases are homogeneous, very slowly add phase C to phase AB.
5. After combination, strongly mix for 10 minutes.

Product characteristics (25°C)

- **Appearance:** Off-white cream
- **Viscosity** (20 rpm, Brk, RV DV-II, T-D, after 24h at room temperature; mPa·s): 1100 - 1900

Multifunction Daily Stick

Formula Number: JZ14-39

This multifunction daily stick was designed to provide SPF 30 performance. It is water resistant and free of preservatives. *In vitro* analysis demonstrated SPF ~35, PFA (PPD) ~11, UVA1/UV = 0.80, and critical wavelength 374 nm.



HallBrite® BHB

Provides sunscreen solvency and emolliency; dilutes UV package's high density to provide lighter skin feel.

SolaStay® S1

Provides very rapid and efficient excited state quenching of avobenzene, protecting it from photo-degradation and improving sunscreen performance.

Biochemica® Olive Oil-Ultra Refined

Exhibits excellent spreadability on the skin; helps to lighten and soften the final product's texture.

BLUE Oléoactif®

Provides sunscreen solvency and emolliency; dilutes UV package's high density to provide lighter skin feel.

PLUMP Oléoactif®

Hydrates and increases lip volume, giving the lip area a naturally firmer and fuller look.

Sensolene® Light ET

Provides an extremely light touch with antioxidant benefits.

SolaPure™ Glo

Contains powerful antioxidant and anti-inflammatory properties; acts fast against skin dryness to restore damaged skin; non-greasy feel.

Olivem® 900

Provides structure in oil phase to balance product hardness.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Homosalate [Homosalate]		10.00	UV Filter / Sunscreen Agent
	Ethylhexyl Salicylate [Octisalate]		5.00	UV Filter / Sunscreen Agent
	Butyloctyl Salicylate	HallBrite® BHB*	5.00	Emollient / Sunscreen Solvent
	Ethylhexyl Methoxycrylene	SolaStay® S1*	3.00	Photostabilizer
	Olea Europaea (Olive) Fruit Oil	Biochemica® Olive Oil-Ultra Refined	up to 100	Emollient
	Glycine Soja (Soybean) Oil, Polyglyceryl-3 Diisostearate, Oryza Sativa (Rice) Extract, Oryza Sativa (Rice) Germ Extract	BLUE Oléoactif®	1.00	Active Ingredient
	Simmondsia Chinensis (Jojoba) Seed Oil, Punica Granatum Flower Extract, Polyglyceryl-3 Diisostearate	PLUMP Oléoactif®	1.00	Active Ingredient
B	Ethyl Olivete, Olea Europaea (Olive) Leaf Extract	Sensolene® Light ET	4.00	Active Ingredient
	Butyl Methoxydibenzoylmethane [Avobenzene]		3.00	UV Filter / Sunscreen Agent
C	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	5.00	Multifunctional Emollient
	VP/Eicosene Copolymer		1.00	Film Former
	Helianthus Annuus (Sunflower) Seed Wax		12.00	Stabilizing Agent
	Sorbitan Olivete	Olivem® 900	9.00	Stabilizing Agent
	Silica		5.0	Deoiling Agent

Preparative procedure

1. In the main vessel, combine and mix phase A, and add phase B with mixing, then heat up to 85°C.
2. Add phase C into the vessel while mixing until uniform.
3. Start cooling and pour into container at 60 - 65°C.

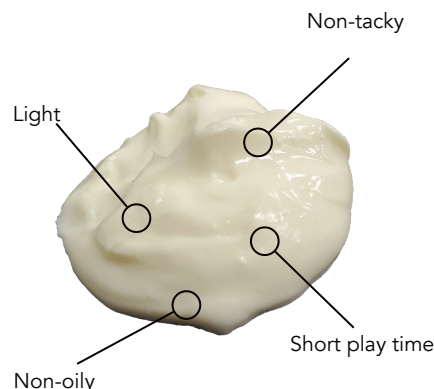
Product characteristics (25°C)

- **Appearance:** Soft stick

Facial Moisturizer Cream SPF 50

Formula Number: JZ14-49B

This 'ante-aging' sunscreen provides SPF 50 UV protection, free from octinoxate, oxybenzone, octocrylene, ethanol and volatile silicones. Combination of BRIGHT Oléoactif® and Micah® helps to delay skin aging, protects from daily external aggressions (UV rays, pollution, stress...), reduce dark spots, and provide anti-inflammatory and anti-free radical efficacy. *In vitro* analysis suggests SPF ~ 52, PFA (PPD COLIPA 2011) ~19, UVA1/UV = 0.84, and critical wavelength 377 nm.



Polycrylene®

Combined with SolaStay® S1 improves sunscreen performance by providing strong photostabilization of avobenzone.

HallBrite® BHB

Provides sunscreen solvency and emolliency; dilutes UV package's high density to provide lighter skin feel.

SolaStay® S1

Provides very rapid and efficient excited state quenching of avobenzone, protecting it from photo-degradation and improving sunscreen performance.

SolaFresh™

Provides good solvency and compatibility with UV filter package to improve sun protection performance.

SolaPure™ Glo

Provides anti-inflammatory, antioxidant and anti-microbial properties; leverages curcumin's benefits to improve sun protection's SPF and PFA performance, control hyperpigmentation and promote overall skin wellbeing.

Sensolene®

Provides silicone-like spreadability.

BRIGHT Oléoactif®

Dedicated to skin brightening, whitening and reduction of hyperpigmentation.

Micah®

Protects against reactive oxygen species (ROS) and other free radicals in UVA-I region (340-400 nm) and extends this protection into the visible spectrum (> 400 nm), providing broader spectrum free radical prevention.

Olivem® 1000

PEG-free self-emulsifying multifunctional ingredient to provide a deep moisturizing effect.

Olivem® VS Feel

An olive lipids-inspired ingredient that can promote the creation of liquid crystal structures.

Phase	INCI Name [INN/SAN] (Other Information)	Trade Name	% Wt	Function
A	Ethylhexyl Salicylate [Octisalate]		5.00	UV Filter /Sunscreen Agent
	Homosalate [Homosalate]		10.00	UV Filter /Sunscreen Agent
	Butyloctyl Salicylate	HallBrite® BHB	5.00	Sunscreen Solvent / Emollient
	Ethylhexyl Methoxycrylene	SolaStay® S1	3.00	Photostabilizer
	Polyester-8	Polycrylene®	4.00	Photostabilizer
	Diethylhexyl 2,6-Naphthalate	SolaFresh™	6.00	Multifunctional Emollient
	Ethylhexyl Olivat	Sensolene®	1.00	Multifunctional Emollient
	Brassica Campestris (Rapeseed) Seed Oil, Glycyrrhiza Glabra (Licorice) Root Extract, Polyglyceryl-3 Diisostearate, Althaea Officinalis Root Extract, Oryza Sativa (Rice) Bran Extract	BRIGHT Oléoactif®	1.00	Active Ingredient
	Vegetable Oil (and) Simmondsia Chinensis (Jojoba) Seed Oil (and) Curcuma Longa (Turmeric) Root Extract	SolaPure™ Glo	5.00	Multifunctional Emollient
	Butyl Methoxydibenzoylmethane		3.00	UV Filter /Sunscreen Agent
B	Bis(Cyano Butylacetate) Anthracenediylidene	Micah®	0.20	Active Ingredient
	VP/Eicosene Copolymer		1.00	Film Former
	Cetearyl Olivat, Sorbitan Olivat	Olivem® 1000	3.00	Self-Emulsifier / Liquid Crystal Maker
C	Cetearyl Alcohol, Cetyl Palmitate, Sorbitan Palmitate, Sorbitan Oleate	Olivem® VS Feel	2.00	Emulsifier / Liquid Crystal Maker
	Glycerin		3.00	Humectant Thickener
	Xanthan Gum (pharma grade)		0.15	(Aqueous) / Emulsion Stabilizer
D	Water (Aqua)		up to 100	Volatile Carrier
	Disodium EDTA		0.05	Chelating Agent
E	Preservative		a.n.	Preservative
	Silica (spherical, 12 µm)		2.00	Deoiling Agent

Preparative procedure

1. To a secondary vessel add phase A with mixing and heat up to 80°C;
2. Add phase B into phase A, and mix well until uniform;
3. To the main vessel, add pre-mixture of phase C and add phase D with mixing. Heat up to 80°C;
4. When AB and CD phases are homogeneous, slowly add phase AB to phase CD with strongly mixing;
5. After combination, mix for 10 minutes, then start cooling with mixing;
6. Add phase E when < 50°C and mix until uniform.

Product characteristics (25°C)

- **Appearance:** Off-white cream
- **Viscosity:** (20 rpm, Brk, RV DV-II, T-D, after 24h at room temperature; mPa·s) 25000 - 45000
- **pH:** 5.0-6.0

HALLSTAR

B E A U T Y

The Hallstar Company
120 South Riverside Plaza, Suite 1620
Chicago, IL 60606-3911 USA
Tel.: + 877.427.4255
E-mail: CSBeauty@hallstar.com
hallstarbeauty.com