

Sunscreen Boosters

with Antioxidant Benefits



The current trend towards increasing SPF values in sunscreens presents a challenge to formulators who have to create products with high concentrations of sunscreen agents while keeping acceptable cosmetic qualities.

Kobo has developed a series of antioxidants and botanical blends, called **SunBoost**. When added to sunscreens formulated with either mineral or organic actives, or even with a combination of the two, SPF and PFA measured in vivo are dramatically increased, up to 30%. This provides the consumer with better protection against UA and UVB rays.

Bisabolol and Tocopheryl Acetate (**SunBoost ATB** and **SunBoost ATB Natural**), Tocopherol (**SunBoost AEB Natural**) or Ferulate (**SunBoost AFB Natural**). These blends offer similar sunscreen boosting activity. **TNP50T7-ATB** is a Titanium Dioxide dispersion with **SunBoost ATB**, which provides up to 4.5 SPF unit for each percent of TiO₂.

Different compositions are available, combining Argan Oil,

The different **SunBoost** can also be used in other types of formulas, for their antioxidants and anti-irritant properties.

| Trade Name | INCI Name | Product Type |
|---|---|---|
| SunBoost ATB | Argania Spinosa Kernel Oil (And) Tocopheryl Acetate (And) Bisabolol | Oily Material |
| SunBoost ATB Natural E | Argania Spinosa Kernel Oil (And) Tocopheryl Acetate (And) Bisabolol | Oily Material |
| New SunBoost AEB Natural | Argania Spinosa Kernel Oil (And) Tocopherol (And) Bisabolol | Oily Material |
| New SunBoost AFB Natural | Argania Spinosa Kernel Oil (And) Ethyl Ferulate (And) Bisabolol | Oily Material |
| TNP50T7-ATB | C12-15 Alkyl Benzoate (And) Titanium Dioxide (And) Argania Spinosa Kernel Oil (And) Alumina (And) Hydrogen Dimethicone (And) Tocopheryl Acetate (And) Polyhydroxystearic Acid (And) Bisabolol | TiO ₂ Dispersion with SunBoost ATB |



E Raw materials approved by ECOCERT in accordance with the ECOCERT standard

Comparison of SPF and PFA of formulas with and without SunBoost ATB

| Formula Reference | Actives | In Vivo SPF | PFA | % Boost on SPF | % Boost on PFA |
|-------------------------------|--|-------------|-----|----------------|----------------|
| KSL-138 O/W Base | Organic 31% | 40 | 13 | Control | |
| KSL-138V | Organic 31% SunBoost ATB 5% | 54 | 17 | 35% | 31% |
| KSL-177-CH W/O Base | TiO ₂ 5.78% ZnO 3.74% | 19 | 7 | Control | |
| KSL-177C-CH | TiO ₂ 5.78% ZnO 3.74% SunBoost ATB 3.6% | 30 | 10 | 58% | 43% |
| KSL-188 W/O Base | TNP50T7 18.53% (TiO ₂ 7.13%) | 22 | 4 | Control | |
| KSL-188E | TNP50T7-ATB 18.53% (TiO ₂ 6.85%) | 32 | 7 | 45% | 75% |

KOBO

USA

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UK

FRANCE

ASIA PACIFIC



KSL-476-EU

Clean Beauty Sunscreen Stick 3-in-1 Prime'n Glow



Part 1

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|--|--------|
| ● ZnO-660-ASGP7 - Kobo Products: Zinc Oxide (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid | 25.00% |
| ● Emotion Light - Roelmi HPC: Tripelargonin | 19.00% |
| ● Dub Zenoat - Stearinerie Dubois: Propanediol dicaprylate | 17.40% |
| ● NHP55STS - Kobo Products: Titanium Dioxide (And) C13-15 Alkane (And) Stearic Acid (And) Aluminum Hydroxide (And) Polyhydroxystearic Acid | 12.00% |
| ● SunBoost ATB - Kobo Products: Argania Spinosa Kernel Oil (And) Tocopheryl Acetate (And) Bisabolol | 3.00% |
| ● Plurol Diisostearique - Gattefosse: Polyglyceryl 3 Diisostearate | 2.00% |
| ● Sensiva PA 40 - Schuelke: Phenylpropanol (and) Propanediol (and) Caprylyl Glycol (and) Tocopherol | 0.60% |

Part 2

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|--|-------|
| ● Sunflower Wax - Koster Keunen: Helianthus Annus (Sunflower) Seed Wax | 4.00% |
| ● Dub PTB - Stearinerie Dubois: Pentaerythrityl Tetrabehenate | 3.00% |
| ● Kesterwax K82H - Koster Keunen: C20-40 Alkyl Stearate | 2.00% |

Part 3

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|---|-------|
| ● CELLULOBEADS D-10-NPC2 - Kobo Products: Cellulose (And) Hydrogenated Lecithin | 4.00% |
| ● MSS-500/N - Kobo Products: Silica | 4.00% |
| ● KTZ® INTERFINE GOLD - Kobo Products: Mica (And) Titanium Dioxide | 1.50% |
| ● KTZ® INTERFINE RED - Kobo Products: Titanium Dioxide (And) Mica | 1.50% |
| ● MSS-500/3H - Kobo Products: Silica | 1.00% |

Manufacturing Procedure

1. Prepare Part 1 by dispersing powder ZnO in liquid emollients.
2. Add Part 2, heat to 95 °C, add Part 3 and mix till homogeneous.
3. Pour into containers at 85 °C and leave to cool at RT.

Description

This easy-to-use, waterless, 3-in-1 product is a sunscreen primer that also gives a glow effect to the skin, containing mostly vegetal and mineral origin ingredients. The formula contains ZnO-660-ASGP7, a Zinc Oxide powder with very high transparency, to provide UV protection. ASGP treatment ensures that the Zinc Oxide can be well dispersed at low energy, adding to the environmentally friendly credentials of the formulation, whilst ensuring a consistently maximized SPF. It also contains a very light and transparent TiO₂ dispersion, NHP55STS, to contribute to SPF protection along with SunBoost ATB for UV protection boosting and skin protecting efficacy. Mineral microspheres, MSS-500/N and MSS-500/3H, contribute to weightless application and good payoff as well as soft focus effects on the skin. CELLULOBEADS D-10-NPC2, a 10 micron cellulose microsphere with hydrogenated lecithin treatment which renders it more creamy, contributes softness and creaminess to the stick. KTZ® INTERFINE RED and GOLD are 5-25 micron particle size interference pearls that are responsible for the glow effect.

Active Ingredients

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|------------------|--------|
| Titanium Dioxide | 5.28% |
| Zinc Oxide | 23.25% |

Testing

SPF: in vivo on 5 subjects
UVA-PF: in vitro method
CW: FDA method



KCC-022

Natural Creamy All Over Concealer

Part 1

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|---|--------|
| ● Deionized Water - Water | 40.75% |
| ● GLYCERIN U.S.P. F.C.C. 96% - Ruger Chemical: Glycerin | 2.00% |
| ● Sodium Chloride - Morton Salt: Sodium Chloride | 0.80% |

Part 2

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| ● Protachem™ CTG - Protameen: Caprylic/Capric Triglyceride | 10.00% |
| ● BENTONE® LUXE WO - Elementis: Polyglyceryl-6 Polyricinoleate (And) Polyglyceryl-3 Diisostearate (And) Distardimonium Hectorite | 5.00% |
| ● DUB ESTOLINE® - Stéarinerie-Dubois: Ethylhexyl Polyhydroxystearate | 5.00% |
| ● LexFeel™ N20 MB - Inolex: Diheptyl Succinate (and) Capryloyl Glycerin/Sebacic Acid Copolymer | 3.50% |
| ● JOS10M5 - Kobo Products: Simmondsia Chinensis (Jajoba) Seed Oil (And) Silica | 3.00% |
| ● SunBoost ATB Natural - Kobo Products: Argania Spinosa Kernel Oil (And) Tocopheryl Acetate (And) Bisabolol | 2.15% |
| ● SWEET ALMOND OIL NF - Jeen International: Prunus Amygdalus Dulcis (Sweet Almond) Oil | 0.85% |

Part 3

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| ● BTD-ASGP3 - Kobo Products: Titanium Dioxide (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid | 10.25% |
| ● BWYO-ASGP3 - Kobo Products: Iron Oxides (CI 77492) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid | 3.15% |
| ● BWRO-ASGP3 - Kobo Products: Iron Oxides (CI 77491) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid | 0.50% |
| ● BWBO-ASGP3 - Kobo Products: Iron Oxides (CI 77499) (And) Stearoyl Glutamic Acid (And) Polyhydroxystearic Acid | 0.30% |

Part 4

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| ● Olivem® 900 - Hallstar: Sorbitan Oliviate | 1.75% |
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Part 5

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| ● CELLULOBEADS D-10 - Daito/Kobo Products: Cellulose | 10.00% |
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Part 6

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|--|-------|
| ● Geogard Ultra™ - Lonza: Gluconolactone (And) Sodium Benzoate | 1.00% |
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Manufacturing Procedure

1. Combine ingredients in Part 2 in main vessel under homogenizer.
2. When Part 2 is completely uniform, add Part 3. Continue homogenizing until color is fully developed.
3. Move to propeller mixer and start heating batch to 80 °C. Maintain 80 °C.
4. Add Part 4 to batch while propeller mixing.
5. Combine Part 1 and propeller mix until Sodium Chloride is completely dissolved. Begin heating Part 1 to 80 °C.
6. Add Part 1 to main vessel when both phases are at 80 °C under homogenizer.
7. Slowly sprinkle Part 5 followed by Part 6 and continue mixing until batch is cool.

Description

This creamy concealer corrects, conceals and highlights with a medium coverage natural finish. It is perfect for masking imperfections and hiding dark circles and blemishes. The coverage and shade is due to the ASGP treated pigments which disperse easily into the formula and promote better wear properties due to their skin adhesion properties. JOS10M5 adds body to the formula and provides conditioning properties. SunBoost ATB Natural provides extra conditioning and nourishing properties to the delicate undereye area. CELLULOBEADS D-10, a cellulose microsphere, adds creaminess to the formula, blurs lines and imperfections, improves payoff and contributes to the natural finish.

KOBO**SunBoost ATB**

www.koboproducts.com