



Sun Care Oil

Example Formulation*

Description

A sun care oil formulation exhibiting low viscosity is described.

The formula has been prepared with natural sunflower oil and includes UVA and UVB absorbing compounds to protect the skin from harmful sunlight. It provides a pleasant feeling and moisture retention of the skin with the texturizing and film-forming properties of Ellamera BI-THIN™ 602 by Kraton.

Physical Properties

Appearance:	Fluid
Color:	Orange/brown
Odor:	Oily
Solubility:	Not soluble in water
SPF	15 (est.)

*The formulation above is intended for information purposes only based on the best of our knowledge. It is the responsibility of the customer to undertake the appropriate testing to determine the suitability of the product for their intended use.

COMPOSITION:

INCI	Qty. %	TRADE NAME	FUNCTION
Sunflower oil	38.37	Sunflower Oil	Emollient
Ethyl Hexyl Palmitate	32.00	DUB PO	Emollient
Butyloctyl Salicylate	10.00	Sunsolv BOS	Solubilizer and Photostabilizer
Homosalate	5.00	Eusolex HMS	UV-B absorber
Octisalate	5.00	Escalol 587	UV-B absorber
Hydrogenated Styrene Isoprene Copolymer	3.50	Ellamera BI-THIN 602	Film former
Avabenzene	3.00	Parsol 1789	UV-A absorber
Squalane	2.00	Phytosqualane	Emollient
Tocopheryl acetate	1.00	Vitamin E Acetate	Antioxidant
Pentaerythryl tetra di butyl hydroxyhydrocinnamate	0.10	Tinogard TT DD	Antioxidant
Beta-carotene	0.03	Beta-carotene	UV-blocking colorant

* DUB PO is a trademark of Stearinerie Dubois; SunSolv is a trademark of Innospec Performance Chemicals; Eusolex is a trademark of Merck; Escalol is a trademark of Ashland Specialty Chemical; Parsol is a trademark of DSM; 1789 TINOGARD is a trademark of BASF.

EQUIPMENT:

- Top stirring laboratory mixer
- Heating plate

PREPARATION:

Phase A

Ellamera BI-THIN™ 602	3.50
DUB PO	27.00
Phytosqualane	2.00
Tinogard TT	0.10
Sunsolv BOS	10.00

PHASE B

Sunflower Oil	38.37
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PHASE C

Escalol 587	5.00
Eusolex HMS	5.00
Parsol 1789	3.00
Vitamin E Acetate	1.00

PHASE D

Beta-carotene	0.03
DUB PO	5.00

Add Phase A ingredients to a beaker and heat for 20 minutes at 120°C, and mix with a laboratory mixer at 400 RPM for about 30 minutes until a clear solution appears. Cool down Phase A to around 100°C and add Phase B into Phase A beaker while stirring. After Phase B is mixed in, cool down to 60°C and add phase C ingredients. After Phase C ingredients dissolve, add phase D slowly to the mixture until the desired color has been reached.

PACKAGING

Test the compatibility with packaging material when using fragrance.

SAFETY NOTES:

- Always be attentive when using mechanical equipment
- Manage all the ingredients with correct PPE in accordance with safety guidelines
- Read the safety document from all the ingredients prior to formulating.

LEGAL DISCLAIMER

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FOR FURTHER INFORMATION

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