



Bio Shine Hair Serum

Example Formulation*

DESCRIPTION

An example of a natural-based hair serum with a 90% bio-renewable carbon index is described. The formula provides a rich, viscous fluid due to the thickening properties of Ellamera PER-SUST 504 by Kraton. This example formulation glides onto the hair smoothly to give an instant shine.

PHYSICAL PROPERTIES

Appearance:	Clear fluid
Color:	Colorless
Odor:	Fragrance
Solubility (in water):	Insoluble
Viscosity (LV-02, 20 rpm, 25°C):	950 cP

*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	Wt %	TRADE NAME	FUNCTION
Diisooctyl Succinate	79.5	SustOleo DCS	Emollient, solvent
Triheptanoin (and) C13-C15 Alkane	9.8	LexFeel WOW-A	Emollient, solvent
Hydrogenated Styrene/ Butadiene Copolymer	8.0	Ellamera PER-SUST 504	Rheology modifier
Propylene Glycol Dibenzoate	1.5	LexFeel Shine	Shine enhancement
Olea Europaea (Olive) Fruit Oil	0.5	Olive Oil, Pomace	Emollient, solvent
Fragrance	0.5	Snowkissed Sugar (93-0130-15)	Fragrance
Tocopheryl Acetate	0.2	d- α -Tocopheryl Acetate	Vitamin E, antioxidant

* SUSTOLEO and LEXFEEL are trademarks of Inolex; Olive Oil was supplied by Univar Solutions/Arista; Fragrance was supplied by Lebermuth; Tocopheryl Acetate was supplied by Univar Solutions/DSM.

EQUIPMENT

- Laboratory mixer, top stirring
- Heating plate

PREPARATION

PHASE A

LexFeel WOW-A	9.8
SustOleo DCS	79.5
LexFeel Shine	1.5
Ellamera PER-SUST 504	8.0

PHASE B

Olive Oil, Pomace	0.5
d- α -Tocopheryl Acetate	0.2
Fragrance	0.5

- Add Phase A fluids in a beaker and begin heating to 90°C with mixing using a laboratory mixer at 200 rpm.
- Add Ellamera polymer to Phase A fluids with mixing during heating. Heat at 90°C for 30-60 minutes, or until a homogeneous solution is achieved.
- Cool down the Phase A mixture.
- Add Phase B ingredients once Phase A \leq 50°C.

PREPARATION NOTES

- A dispersion blade (or cowles blade) improved dispersion and increased rate of dissolution of the Ellamera polymer in Phase A.

- Alternatively, a homogenizer may be used to disperse/dissolve the Ellamera polymer in Phase A while heating.

PACKAGING

The example formulation for a hair serum is formulated with emollient oils and needs packaging that protects against leakage during storage and transportation.

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
- It is always better to cover the vessel during mixing.
- Review the safety data sheets for all the ingredients prior to formulating.

LEGAL DISCLAIMER

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FOR FURTHER INFORMATION

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