

Jojoba Esters

Sensorially activate your formulations

Jojoba Esters-15
Liponate™ Jojoba 20†
Jojoba Esters-30
Jojoba Esters-60
Jojoba Esters-70

INCI: Jojoba Esters
CAS #: 61789-91-1
EC #: 612-381-6

Multi-functional

Eco-friendly, natural

Emolliency, moisturizing, softening and conditioning effects

Low odor and color

Superior oxidative stability

Improved structural integrity in stick formulations

Recommended applications



All cosmetics

Jojoba Esters are a complete range of oil-free wax esters derived from DW Jojoba Oil.

They are natural, green and sustainable, made from jojoba oil and/or hydrogenated jojoba oil via interesterification. Jojoba Esters are available in a wide variety of forms with different melting point ranges. They are ideal for use in a broad range of personal care applications, including products requiring “oil-free” label claims.

Jojoba Esters are multi-functional, delivering hydration and an elegant skin feel, as well as improving the performance and functionality of cosmetic products. Unlike triglyceride oils, Jojoba Esters provide non-greasy emolliency and are readily absorbed into the skin.

Jojoba Esters-15 is a liquid ester that delivers emolliency and a smooth, elegant feel. In color cosmetics it provides excellent pigment wetting and can be used as a binder in pressed powders.

Liponate™ Jojoba 20 is a light emollient, available as a paste at room temperature, that transforms the sensorial profile of formulations to add softness, spreadability, and a subtle thickness.

Jojoba Esters-30 offers an increase in emolliency compared to Jojoba Esters-15, providing a creamy, lightweight skin feel.

Jojoba Esters-60 provides hydration, high stability, substantivity, superior oxidative stability, creamy texture, smooth elegant skin feel and non-greasy emolliency. This is a very versatile grade that can be used in a variety of personal care applications.

Jojoba Esters-70 delivers glide as well as strength and flexibility to the structure of stick formulations without being brittle, allowing for a higher loading of pigments or emollients, and provides a flexible film in mascara formulations.



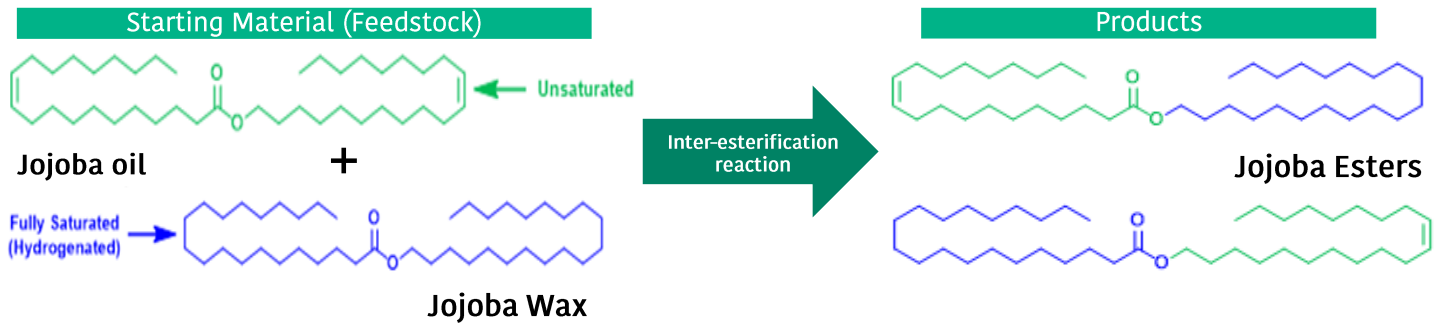
NATRUE Approved

†Liponate Jojoba 20 is not NATRUE Approved.

Vantage

Inter-esterification between jojoba oil and jojoba wax

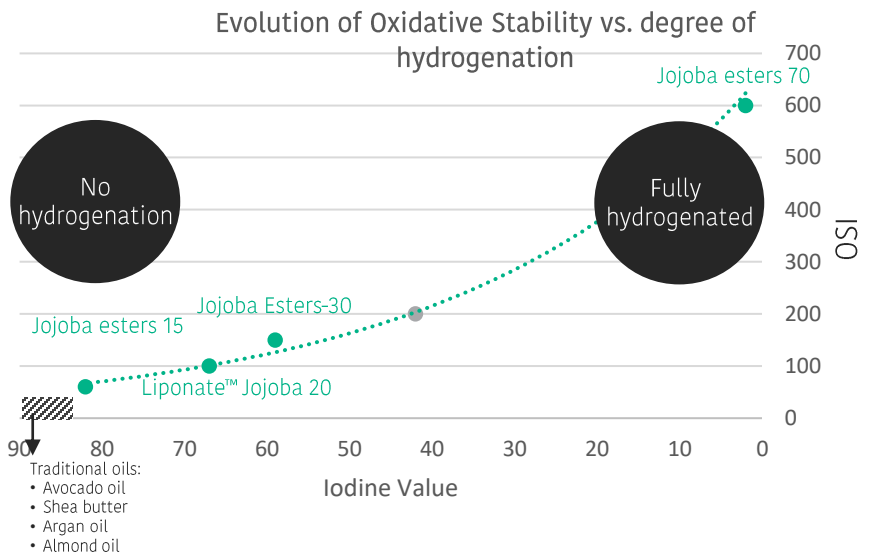
Jojoba oil offers unique possibility for derivatives creations. Jojoba ester derivatives combine the efficacious skin and hair benefits of jojoba oils and strong sensorial identities that reinforce the perception of efficacy. These derivatives are synthesized following chemical processes that are compliant with Green Chemistry principles, allowing these ingredients to be validated COSMOS.



Jojoba esters display higher oxidative stability indexes

Unsaturation in the carbon chains contribute to the instability of natural oils. Jojoba oil is naturally a highly stable oil and can be heated to 370°F (188°C) for 96 hours without degradation in composition and carbon chain length.

Further hydrogenation of jojoba esters reduces the amount of unsaturated liaisons, which contributes to increasing its stability. As a result, Jojoba Esters display high oxidative stability. Highly Hydrogenated jojoba esters are perfect for formulations with oxidative or acidic ingredients, or exposed to high-heat (hot pour).



Vegan & natural alternative hard wax

Jojoba Esters 70 can be used in stick formulation as an alternative to beeswax.

Beeswax slides easily on skin but leads to poor and heterogenous pay-off and coverage. Jojoba Esters-70 provides a more controlled glide, with excellent homogenous pay-off that results in a comfortable film.

In the test applications, beeswax and Jojoba Esters-70 provides a similar coverage after 3 applications.

When looking at the finishing look, after 3 applications, beeswax gives a slightly brighter appearance Jojoba Esters-70 gives a slightly more matte appearance.



6.5% Beeswax vs Jojoba Esters-70 in a **lipstick** formulation.

Melting Point - Final formula:
 Beeswax: ~55,8 °C
 Jojoba Esters-70 : ~56,0 °C



5.0% Beeswax vs Jojoba Esters-70 in stick **bronzing** formulation.

Melting Point - Final formula:
 Beeswax: ~58,8 °C
 Jojoba Esters-70 : ~59,3 °C



6.0% Beeswax vs Jojoba Esters-70 in stick **sunscreen** formulation.

Melting Point - Final formula:
 Beeswax: ~51,9 °C
 Jojoba Esters-70 : ~52,4 °C

Jojoba esters skin and hair benefits

The chemical structure of jojoba oil is different from that of other vegetable oils. It is a polyunsaturated liquid wax that is similar to human sebum, composed almost completely of wax esters of monounsaturated, straight chain acids and alcohols with high molecular weights.

This skin mimetic nature of jojoba esters is core to their unique performance. Vantage™ has conducted extensive clinical trials on jojoba oil and its esters to highlight the benefits of jojoba esters for skin and hair applications.



In-vivo benefits of jojoba esters
(Full studies and protocols available at ingredient level)

Skin Care (@2%)

Jojoba esters provide **3 times** the moisturization of the placebo formulation.

Jojoba esters completely **restore damaged skin barrier in 24 hours**.

Jojoba esters **restore healthy hydration levels in 4 hours**.

Jojoba esters **reduce skin redness in 8 hours**.

Hair care (@3%)

55% reduction in wet combing work

71% reduction in dry combing work

Hair shine is **more than doubled!**

25% reduction of heat damage

Jojoba esters significantly contribute to formulations' skin and hair benefits

Jojoba esters sensorially activate formulations

Jojoba oil offers unique possibility for derivatives creations. Jojoba ester derivatives combine the efficacious skin and hair benefits of jojoba oils and strong sensorial identities that reinforce the perception of efficacy. For example, the cushiony and velvety feel imparted by jojoba esters create a sense of increased moisturization perception.

Impact of Liponate™ Jojoba 20 on consumer experience



The addition of jojoba esters into the formulation improves the overall user experience while reinforcing the perception of moisturization. **This is sensorial activation.**



10 male and female subjects, ages 20 – 55 years old
3% Liponate™ Jojoba 20
One application of each formulation on arm
Blind application
Rating: 1 - Strongly Disagree | 2 - Disagree | 3 - Agree | 4 - Strongly Agree

Jojoba Esters

Sensorially activate your formulations

	Jojoba Esters-15	Liponate™ Jojoba 20	Jojoba Esters-30	Jojoba Esters-60	Jojoba Esters-70
Appearance @ 25°C	Clear colorless liquid	White soft paste	White soft paste	Creamy white paste	White wax flake
Melting Point	10-15°C	42-48°C	47-51°C	56-60°C	66-70°C
Iodine Value cg l/g	78-85	64-70	57-61	40 – 44	2 max.
Recommended Use Level	1-25%	1-5%	1-5%	1-10%	1-10%

Formulation guidelines

Jojoba Esters can be incorporated into the oil phase and can be heated up to 95°C. They are compatible with most esters, oils, waxes and gellants. For anhydrous systems, Liponate™ Jojoba 20, Jojoba Esters-30, Jojoba Esters-60 and Jojoba Esters-70 can be prop mixed until melted and uniform.

Fully secured supply chain

In 2012, Vantage™ started its From Farms to Formulations™ initiative to provide total transparency of the supply chain of jojoba oil. Our jojoba is harvested at Vantage™ owned and operated farms and the oil is processed and purified at our facilities. We carry safety stocks of unprocessed seeds and jojoba oil all year long in order to supply our customers without interruption. As the only supplier with geo-diversified farms in Argentina and USA, and a global network of 18 warehouses, Vantage™ is committed to supporting its clients with its global reach and local touch.



Our full control over the entire transformation chain guarantees the best and reproducible quality

All data, including any formulations and procedures, supplied to customers, to the knowledge of Vantage™, are supplied in good faith and believed to be reliable and accurate. Please note, however, that Vantage™ does not warrant or guarantee the accuracy, reliability or completeness of the information contained herein, and Vantage specifically disclaims all warranties, including warranties of non-infringement, merchantability and fitness for purpose. It is the user's responsibility to determine the suitability and completeness of such information for the user's particular application (including performing any necessary confirmatory tests). Vantage™ is not responsible or liable for any loss or damage that may occur from the use of this information. Nothing contained herein shall be construed as providing any permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

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