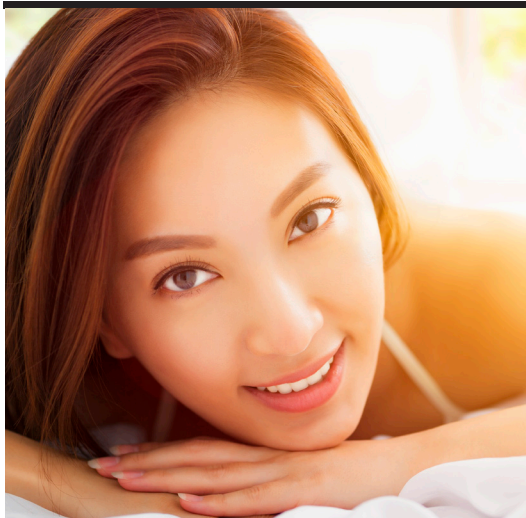


Jojoba Aqua™ Bio-120

Water-Soluble Jojoba Wax Ester



PRODUCT: Jojoba Aqua™ Bio-120

EINECS #: NA

INCI NAME: Jojoba Wax PEG-120 Esters

CAS #: 159518-81-7

WHAT IS JOJOBA AQUA™ BIO-120?

Jojoba Aqua™ Bio-120 is a water-soluble emollient wax created using DW Jojoba Oil with renewable and sustainably produced ethylene oxide derived from corn. It is a multifunctional ingredient that will provide emolliency to the skin and hair and act as a mild non-ionic surfactant or solubilizer for your formulation. Vantage DW Jojoba Oil is sourced from our own farms grown in the Sonoran Desert of North America and Patagonian Desert of Argentina.

Jojoba Aqua™ Bio-120 was designed to bring the moisturization of our DW Jojoba Oil in a water-soluble form "From Our Farms to Your Formulations."

WHAT DOES JOJOBA AQUA™ BIO-120 DO?

Jojoba Aqua™ Bio-120 provides the skin and hair softening and conditioning properties associated with DW Jojoba Oil in an easy to use water-soluble form. Jojoba oil is a liquid wax ester with a unique chemical composition like that of skin sebum. It is unlike all other naturally occurring oils, such as vegetable oils, which are triglycerides. As a result, jojoba oil is non-occlusive with superior properties and performance – including non-greasy emolliency and high oxidative stability.

Jojoba Aqua™ Bio-120 is easy to incorporate into a variety of surfactant based personal care products such as liquid soaps, shower gels, body washes and shampoos. It may be used in both hot process and cold process applications and does not have a negative impact on foam generation in rinse off applications. It is also a clarifying agent for all water or surfactant-based formulations and aids in fragrance oil solubilization in aqueous solutions. Additionally, it imparts increased slip and increased structure to water-based stick products.

TYPICAL PROPERTIES OF JOJOBA AQUA™ BIO-120

Appearance @ 25° C	White to off white flakes
Odor	Characteristic
Color, Gardner	3.5 Max
Acid Value	3.5 Max
pH	5.5-7.0
Melt Point	55°C
Surface Tension	43 mN/m
Recommended Use Level	0.5-5.0%

KEY BENEFITS

- Water soluble ester
- Wax texture
- Softening, smoothing, conditioning effect
- Film former
- Emollient
- Sensorial modification/enhancement
- Ease of use – hot or cold process capable
- Naturally-derived & biodegradable
- Incorporate jojoba oil into water-based systems

IDEAL FOR USE

- Facial cleansers
- Shampoos
- Shower gels/body washes
- Hair styling products
- Skin toners & make up removers
- Hand sanitizers
- Facial masks
- Clear aqueous systems



JOJOBA AQUA BIO-120 Water-Soluble Jojoba Wax Ester

HOW CAN JOJOBA AQUA™ BIO-120 BE USED?

Heat the water phase to 55°C and add **Jojoba Aqua™ Bio-120**. It will readily dissolve completely into the water phase. Once fully dissolved add other surfactants and ingredients.

Jojoba Aqua™ Bio-120 can also be formulated through “cold processing”. Add **Jojoba Aqua™ Bio-120** to water at room temperature. Wait 5-10 minutes to allow for the ingredient to become fully hydrated. Mix until completely dissolved.

PERFORMANCE EVALUATIONS

Jojoba Aqua™ Bio-120 contributes to denser and richer foam formation, enhancing the visual aspect of hand and facial cleansers.



Control

(less foam with low density, and big and open bubbles)

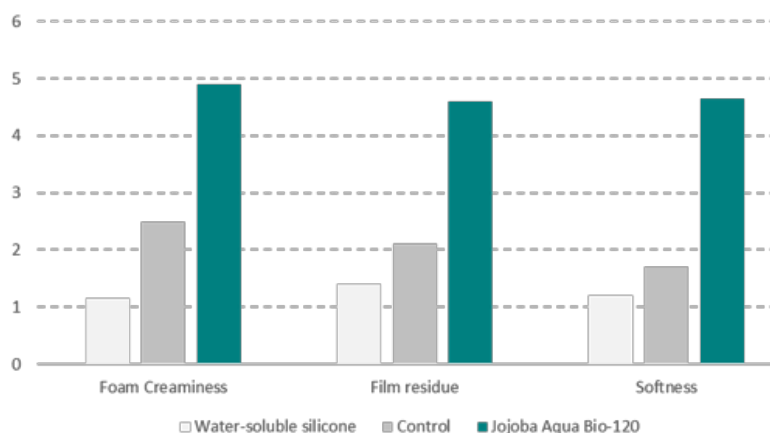
Jojoba Aqua™ Bio-120

(dense and concentrated foam with small and closed bubbles)

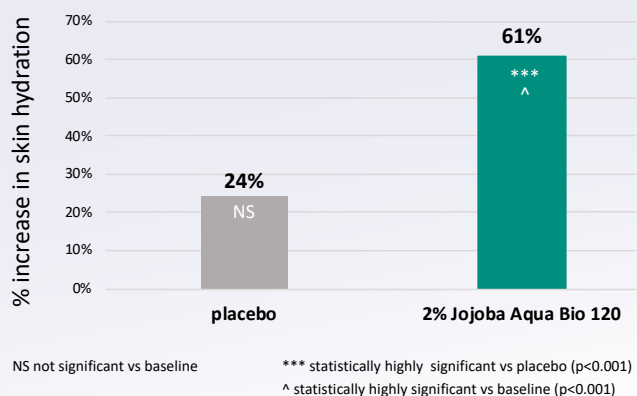
Water soluble silicone

(less foam with low density, and big and open bubbles)

Sensorial evaluation by panelists of the same cleanser formulation confirmed the overall high end perception of the **Jojoba Aqua™ Bio-120** based formulation.



When used in a micellar cleanser, **Jojoba Aqua™ Bio-120** contributed to a statistically significant 61% increase of skin hydration compared to baseline and placebo.



All data, including the formulations and procedures discussed herein, to the knowledge of Vantage Specialty Chemicals, Inc. (Vantage), are believed to be correct, reliable and accurate. Please note, however, that Vantage does not warrant or guarantee any accuracy, reliability or completeness of the information contained herein. It is the user's responsibility to determine the suitability and completeness of such information for the user's particular use (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, nor do we warrant against any patent infringement. Nothing contained herein shall be construed as providing any permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.