

Hydresia™

SKIN-FEEL OLEOSOMES

Natural and Multifunctional
Encapsulation and Delivery System
for Skin and Hair Applications.

EMULSIFIER in the formula,
EMOLLIENT on the skin.

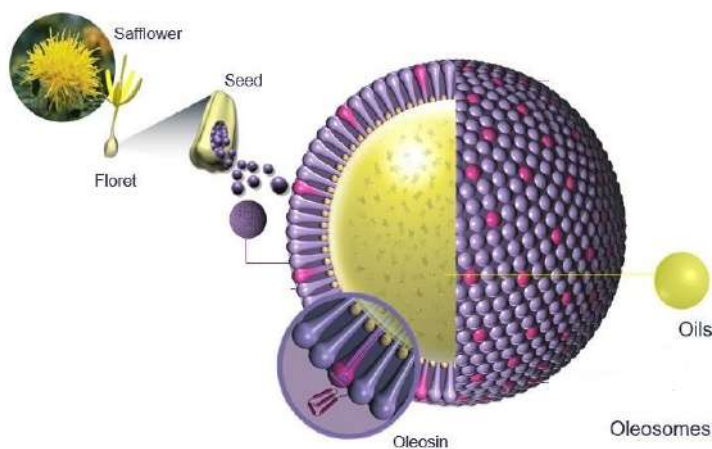


WHAT ARE OLEOSOMES?

A 100% natural, complex organelles of safflower seeds, contain:

- 🔗 oleosin proteins,
- 🔗 phospholipid membrane,
- 🔗 triacylglycerol

A multi-purpose structured system that acts as an emulsifier in the formulation, emollient on the skin and conditioning on the hair.



SHARON PERSONAL CARE is a global supplier of ingredient solutions for a broad range of personal care products– including advanced preservative systems, formulation building blocks, functional ingredients and Bio-actives.

A new texturizing and functional formulation approach

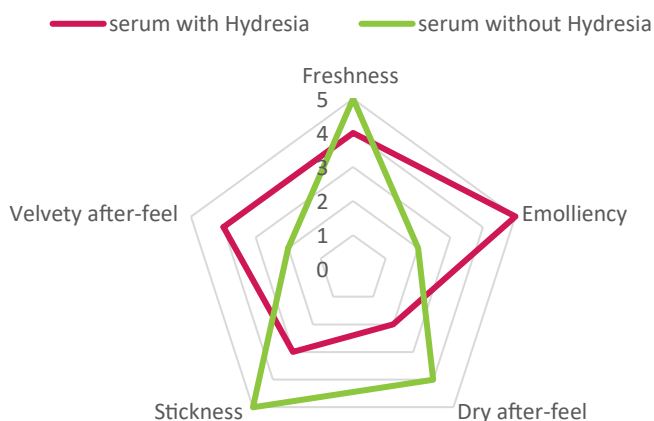
A revolutionary approach where oleosome technology offers new ingredients able to:

- protect the skin barrier and cuticles
- stabilize the emulsion.

Due to its high levels of oleic and linoleic acids, which are known to support skin barrier functions, Hydresia helps to **strengthen the skin barrier** and **reduce TEWL** by delivering its contents to the skin surface over time.

The SENSORY STUDY compared two simple formulations with and without Hydresia™ SF2, showing how the presence of oleosomes gives the formula a **richer and velvety feel**.

Sensory impact of HYDRESIA™

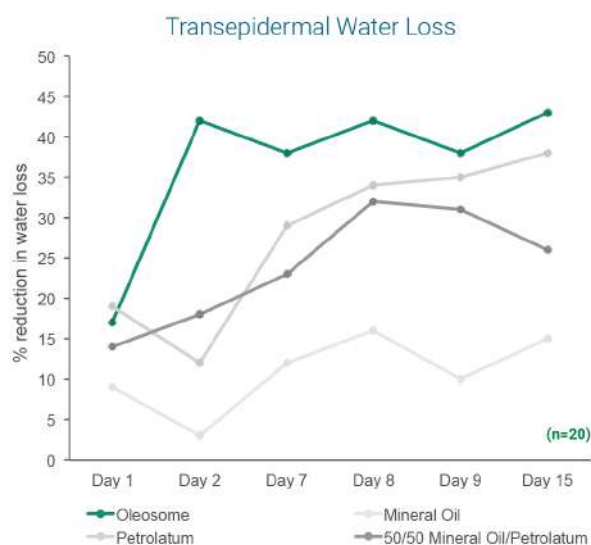


**Add hydresia to your texture
and feel the difference.
MAKE HYDRATION TOUCHABLE**

FORMULA	Serum with Hydresia	Serum without Hydresia
Water	Up To 100	Up To 100
Xantan Gum	2.5	2.5
Hydresia SF2	10	-
Preservatives	1	1

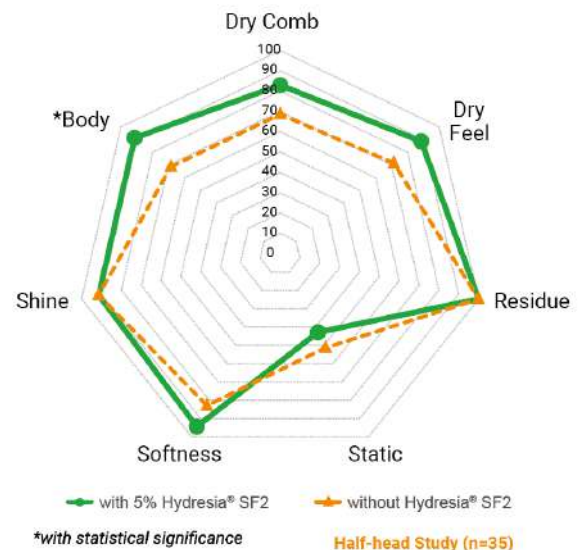
Skin care and Hair care benefits

The oleosomes collapse, releasing their moisturising oils and vitamin E onto the skin, hair and scalp, offering sensory and functional benefits.



Improvement in the prevention of water loss over a 15 day period.

Dry Hair Attributes Comparison



Improvement in hair body superior dry combability and softness.

Hydresia Line

	HYDRESIA SF2	HYDRESIA G2	HYDRESIA dulce
INCI name	Carthamus Tinctorius (Safflower) Oleosomes (and) Water	Carthamus Tinctorius (Safflower) Oleosomes (and) Glycerin (and) Water	Prunus Amygdalus Dulcis (Sweet Almond) Oleosomes (and) Water
Appearance	Off-white cream		
pH	3.5-5.0	4.0-5.0	4.0-5.0
Viscosity	500-2400 cps (DVE Viscosimeter LV-3 @5.0 rpm) for 30 s@RT)		
Oleosome %	65%	60%	60%
Use levels	2%-20%		
Hydresia Oil Ratios	1:3	1:2	1:1
Regulatory	COSMOS, NSF, CHINA Inventory listed	COSMOS, CHINA Inventory listed	COSMOS
Functions	Emollient, Texturizer, Delivery System, Emulsifier		



Video
Formulation

Formulating with Hydresia™

Formulation
Booklet



Formulation Storage

- Mix well before use and store between 10° and 25°C

Formulation Guidelines:

- To ensure viscosity and stability when using Oleosomes as an emulsifier, it is recommended to include thickeners in the formulation.
- Oleosomes can be mixed at a max speed of 400 rpm without additional ingredients, or up to 800 rpm when adding oil phase ingredients to concentrated Oleosomes, using a propeller. Once the water phase is added, the mixture can be homogenized at a speed of up to 3000 rpm.
- Temperatures up to 60°C are acceptable for all Hydresia formulations. Add Hydresia to formulations that require temperatures over 60°C during cool-down, but do not exceed 70°C.
- Oleosomes remain stable in freeze/thaw cycles within formulations, but the raw material should never be frozen.
- Formulate at a pH between 3.5 and 9.0.
- Hydresia oleosomes are compatible with electrolytes but do not result in a clear formula.
- They are also compatible with most surfactants and preservative systems.

How to use Hydresia™:

Emulsion: slowly add oil to Hydresia while mixing at 400 rpm for 20-30 minutes. Then, under stirring (< 60°C), add the mixture to the water phase, followed by the addition of thickeners.

Water-based or surfactant gels: premix Hydresia with lipophilic actives at 400 rpm for 20-30 minutes, and then add it to the main batch during the final step of the process, under stirring.

Anhydrous product: premix Hydresia with hydrophilic actives at 400 rpm for 20-30 minutes and add it in the final step of the process, under stirring and at a temperature below 55-60°C to the melted product.

Sustainability and environmental consciousness

Harnessing the power of nature

HYDRESIA™ oleosomes are extracted from the seeds of Safflower (*Carthamus tinctorius*).

- 🔗 cultivated and harvested in California, USA
- 🔗 no pesticides
- 🔗 no synthetically-produced fertilizers
- 🔗 low water requirements
- 🔗 non-GMO.

Oleosomes are isolated fully intact, thanks to a proprietary process, to maintain the micro-oil bodies as nature designed them with their full capabilities.

They provide a perfect combination between **full naturality and high performance**.

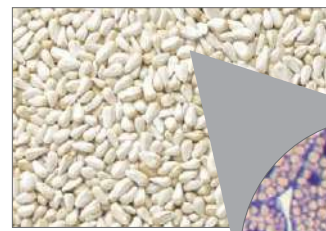
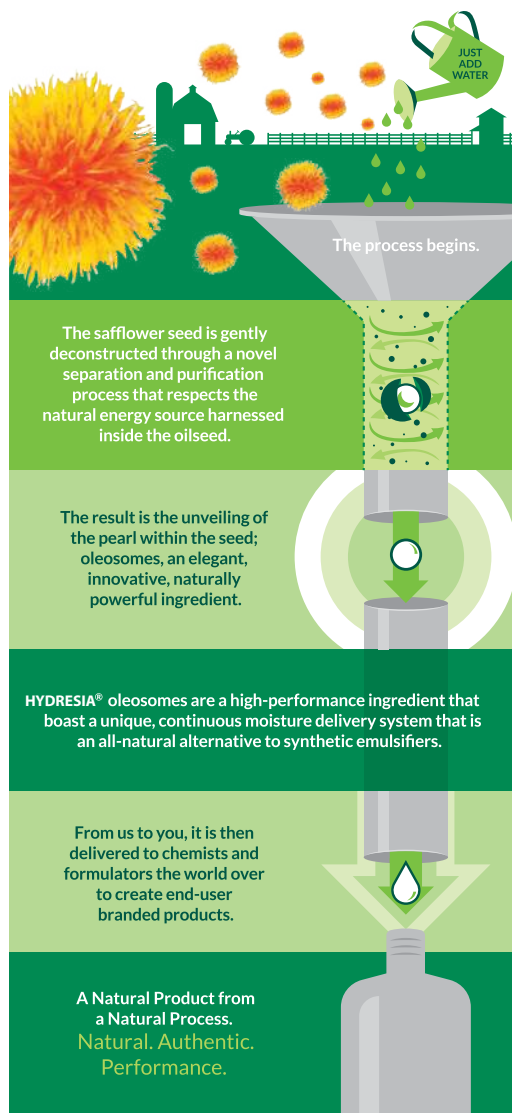


Figure 1.
Safflower seeds

Figure 2.
Dyed cross section
of safflower seed cell

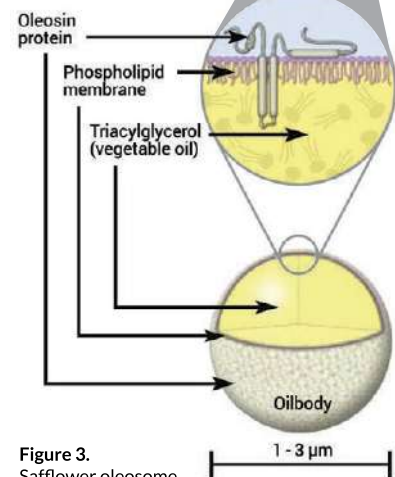
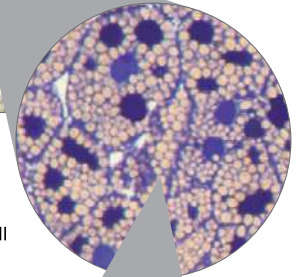


Figure 3.
Safflower oleosome

Manufacturing:

Novel separation and purification techniques that enables the recovery of high quality oleosomes and proteins in their natural state.



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