

EcoDropGel

Silicone Free, Water-Drop Technology



EcoDropGel

INCI: Polyglyceryl-4 Isostearate
(and) Coco-Caprylate/Caprate
(and) Disteardimonium
Hectorite

CAS #: 91824-88-3 & 95912-86-0 &
97280-96-1

EC #: N/A & N/A & 306-493-1

EcoDropGel is a silicone-free emulsifier system that was developed to produce macro emulsions with a highly moisturizing Water Drop effect upon application to the skin.

Water Drop emulsions originated as a K-Beauty concept and provide a highly desired visual and sensory effect for consumers.

Shearing forces generated by the rubbing in or application of the cosmetic formulation cause the water-in-oil emulsion to rupture, thereby causing the internal aqueous phase to emerge in the form of droplets. The water droplets are large enough for the visual effect and the desirable cooling and moisturizing effect as the water evaporates on the skin.

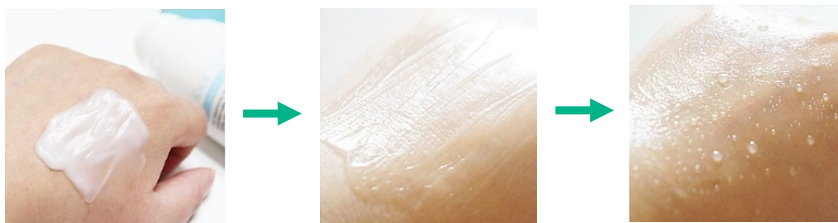
Water drop Effect

Silicone-free

Patent Pending

Provides Deep Hydration & Moisturization

Water Drop for Visual and Moisturizing Effect



Water Drop = Water Releasing = Quick Breaking

Recommended applications



Skin Care



Liquid
Make-up



Vantage

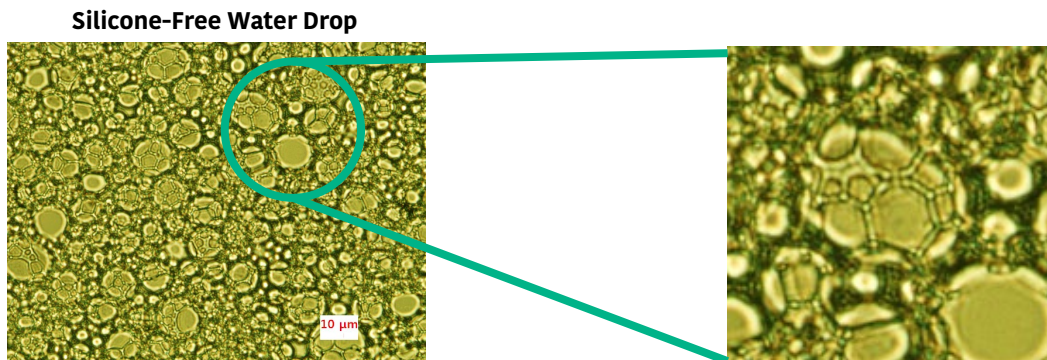
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Appearance	Light buff paste
Preservative	None
Recommended Use Level	3-6%
Shelf Life	2 years
Regulatory Details	Globally Compliant

Water droplets under microscope

EcoDropGel is a w/o emulsifier system that is silicone-free, PEG-free and PPG-free and is the perfect ingredient when formulating for clean beauty. EcoDropGel uses Sunjin's hectorite technology to produce a w/o emulsifier system that creates a network around the large water droplets in the macro emulsion that are needed for the water drop effect. The network is illustrated in the microscope photo below:



Formulation guidelines

EcoDropGel can be used to produce a range of textures in skin care formulations while maintaining the water drop moisturizing effect. Product textures range from soft creams to firm balms. The photos illustrate a soft facial cream, a custard cream and a firm balm.



The use level of EcoDropGel should be optimized to create a stable macro emulsion while maintaining the Water Drop Effect.

When formulating with EcoDropGel, the water phase must be added to the oil phase with increasing agitation speed to produce a w/o emulsion with larger water droplets. Use of a homogenizer is not recommended since this higher shear will reduce the water droplet size and the water drop effect will be lost.

Additional considerations when formulating with EcoDropGel include the addition of active ingredients, fragrances and preservative type and use level. Any instability issues can be corrected by increasing the concentration of EcoDropGel.

[Click here to view the Water-Drop effect!](#)

