

lubrajel* hydrogels

moisturizers that enhance the sensory experience

product	INCI
lubrajel* marine ¹	Water (aqua) (and) Glycerin (and) Sodium PCA (and) Erythritol (and) Chondrus Crispus (carrageenan) (and) Xanthan Gum
lubrajel* oil	Glycerin (and) Glyceryl Acrylate/Acrylic Acid Copolymer (and) Propylene Glycol (and) PVM/MA Copolymer
lubrajel* CG	Glycerin (and) Glyceryl Acrylate/Acrylic Acid Copolymer (and) Propylene Glycol
lubrajel* II XD	Glycerin (and) Glyceryl Polyacrylate
lubrajel* MS	Glycerin (and) Glyceryl Acrylate/Acrylic Acid Copolymer (and) Propylene Glycol
lubrajel* DV	Glycerin (and) Glyceryl Acrylate/Acrylic Acid Copolymer (and) Propylene Glycol

¹COSMOS validated: The Cosmetics Organic Standard (COSMOS)

description

Consumers today expect hydration from skin care products plus an interesting sensory experience—unexpected textures with a desirable after-feel. Lubrajel* hydrogels deliver clinically proven moisturization as well as the lubricity and texture range to create an engaging sensory experience. Unlike moisturizing agents such as glycerin which can be limited by aesthetic properties, Lubrajel* hydrogels

key features[†]

- superior moisturization
- customizable sensory experience
 - excellent range of slip and lubricity
 - exceptional after-feel range
 - wide viscosity range for texture enhancement
- easy to use to achieve desired formulation aesthetics
 - non-oily emolliency
 - clear, colorless gels, no impact on formulation clarity
 - water-soluble
 - cold-processable
- listed on China IECIC-CFDA (2015) and China IECSC-MEE
- high natural origin content (over 93% according to ISO 16128-2:2017²)

²Natural Origin Content calculated according to ISO 16128-2:2017



offer an easy way to add hydration and achieve the desired sensory effect. The formulation keys are in your hands with the Lubrajel* range of hydrogels.

applications

- skin creams, lotions, gels
- shaving gels, creams
- sun care
- foundations, bb creams
- essences, toners, micellar waters
- face masks (leave-on, sheet, peel/rinse-off)

easy hydration and a customizable sensory experience

Each Lubrajel* hydrogel delivers moisturization and has its own sensory profile, offering a unique sensory experience that can be customized by the formulator. Select the Lubrajel* from our range to achieve just the right slip, texture and after-feel for your formulation.

^{*}Lubrajel is a registered trademark of United Guardian, Inc.
[†]United Guardian is RSPO supply chain certified (via Mass Balance)

technical information

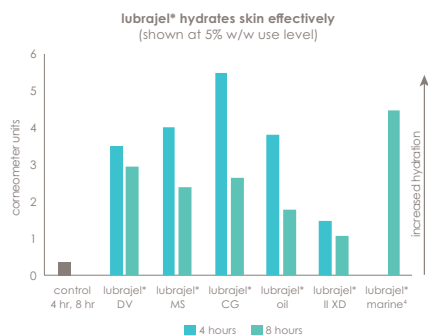
lubrajel* range of hydrogels

product	lubrajel* marine ¹	lubrajel* oil ²	lubrajel* CG ³	lubrajel* II XD ²	lubrajel* MS ²	lubrajel* DV ²
lubricity/slip	high	high	medium	medium	low	low
viscosity (cps at 20–25 °C)	100,000 (#6, 2.5 rpm)	800 (#3, 50 rpm)	350,000 (#6, 2.5 rpm)	13,500 (10% soln, #5, 20 rpm)	320,000 (#6, 2.5 rpm)	1,100,000 (#6, 2.5 rpm)
sensory effect/texture	light, fresh, powdery after-feel	lubricious, light, dimethicone-like feel	luxurious, cushioning	rich, substantive	luxurious, cushioning	rich, substantive
Natural Origin Content according to ISO 16128-2:2017	98–100%	94.5–98.5%	94.0–98.0%	94.5–98.5%	94.5–98.5%	93.5–97.5%

¹COSMOS validated; contains benzoic acid and sorbic acid preservative system ²Available in 'Free' grades that utilize paraben-free preservative systems ³Available in 'lubrajel PF' grade that is preservative free

delivers high moisturization

To evaluate the ability of Lubrajel* to moisturize the skin, an *in vivo*, double-blind, randomized study was conducted on twenty internal panelists. Initial hydration baseline data was recorded with Nova DPM 9003, after which a gel cream formula containing either 5% of one of five Lubrajel* hydrogels or no Lubrajel* (control) was applied randomly to the panelists' forearms. Hydration data was recorded after 4 and 8 hours. In a second study, hydration data was recorded for the same gel cream formula with 5% Lubrajel* Marine after 8 hours. In both studies, each Lubrajel* demonstrated an ability to moisturize the skin versus the control.

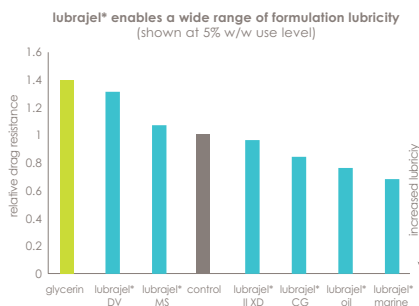


Hydration is statistically significant vs. control for all Lubrajel* treatments at 4 and 8 hours. ($p < 0.05$)

Lubrajel Marine tested in the same formulation in a second study after 8 hours ($p < 0.05$).

enhances sensory experience

Lubrajel* hydrogels offer a range of lubricity that enables formulators to achieve the desired amount of slip and play time that a consumer will experience during rub-in of the formulation. To assess lubricity, a study was conducted to measure the drag resistance of a base gel cream formulation (control) using a texture analyzer and compared to measurements taken of the base formulation containing either 5% Lubrajel* or 5% glycerin.



Highest slip is achieved by adding Lubrajel* Marine while highest drag results from adding glycerin.

a naturally-derived sensory experience

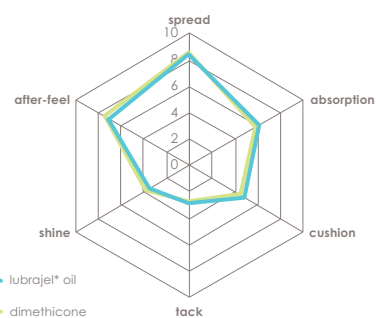
Derived from natural ingredients (COSMOS¹ validated), Lubrajel* Marine hydrogel delivers clinically proven 8-hour moisturization along

with a light texture, fresh feel, high slip and soft powdery after-feel. Its unique composition contains sustainably sourced glycerin[†] and is partially derived from red seaweed.

provides light, dimethicone-like after-feel

In a sensory study, a light-feel gel cream moisturizer containing either 3% of Lubrajel* oil or dimethicone (5 cst) was graded on several attributes by a 5-person expert panel in a double-blind, randomized test. The results demonstrated that the sensory profile did not change when Lubrajel* oil was used instead of dimethicone. Lubrajel* oil is an excellent alternative to achieve a light, dimethicone-like feel.

lubrajel* oil provides a similar sensory profile to dimethicone in a light-feel moisturizer



Substituting dimethicone with Lubrajel* oil did not change the sensory profile of the formulation.

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