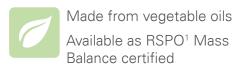


# Natural Emollient Portfolio



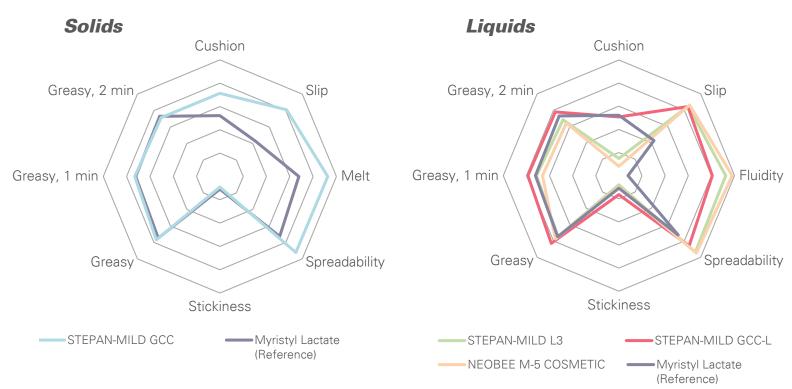




Stepan Product	INCI Name	Form at 25°C	Sensory Characteristics	Required HLB
NEOBEE® M-5 COSMETIC	Caprylic/Capric Triglyceride	Clear, colorless to yellow liquid	Most fluid feel and glossy finish	5
STEPAN-MILD® GCC	Glyceryl Caprylate/Caprate	Pale yellow liquid to white semi-solid	Melting butter texture and rich, cushioned feel	9
STEPAN-MILD GCC-L	Glyceryl Caprylate/Caprate (and) Glycerin (and) Propylene Glycol	Pale yellow liquid	Fluid, cushioned feel	13
STEPAN-MILD L3	Lauryl Lactyl Lactate	Clear liquid	Light, fresh, fluid feel and satin finish	10
WECOBEE® M	Hydrogenated Vegetable Oil	White to off-white solid	Melting butter texture; economic alternative to cocoa butter	5

## Sensory Profiles

Comprising buttery solids and smooth liquids, Stepan's natural emollients deliver good spreadability and no observed stickiness, along with a range of other sensory characteristics.

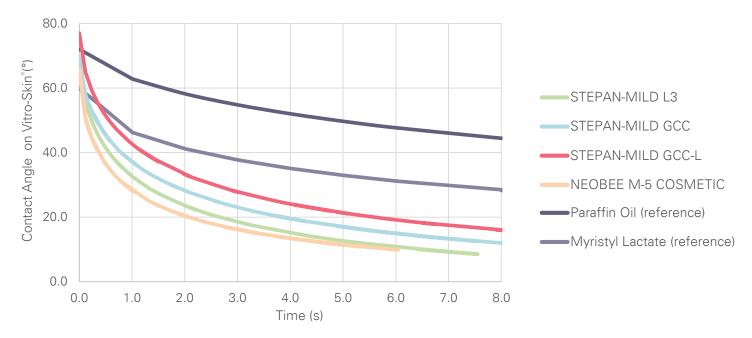


Sensory analysis on pure ingredient completed by 20 expert panelists. Contact Stepan for more information.

### Spreadability of Stepan Emollients

The spreadability of different emollients can be determined by measuring the contact angle of a particular ingredient on a substrate, in this case <u>Vitro-Skin</u><sup>®</sup>. An ingredient that demonstrates good spreadability will have a polarity that closely matches the natural polarity of skin (which tends to be hydrophilic) and thus return lower contact angle results than an ingredient with poor spreadability.

Good spreadability is an important attribute for applications such as body and facial lotions and sunscreens, where it is desired to have a formula that rubs into the skin quickly and feels light and soft, not greasy.



Stepan's natural emollients more closely match the polarity of skin when compared to the synthetic control references tested and therefore demonstrate better spreadability on skin. Stepan's emollients are optimal choices for lotion and sunscreen formulations based on this important attribute.

## Formulation Inspiration

Let Stepan help jump-start your next development project with these skin care concepts. Click on each formulation title for more details.

### **Natural Body Butter**

Formulation No. 1296 with STEPAN-MILD GCC and WECOBEE M This rich and nourishing body butter uses a combination of natural oils and emollients to moisturize rough, dry skin. It instantly starts to melt on your skin and absorbs quickly for a moisturized, non-greasy feel.

### Prep & Prime Beauty Oil

Formulation No. 1312 with NEOBEE M-5 COSMETIC and STEPAN-MILD L3 This primer oil provides lightweight hydration, creating a smooth canvas for foundation application. Even better, this product contains squalane, a version of the major component of skin's surface and a natural antioxidant.

### <u>Ultra Hydration Night Cream</u>

Formulation No. 1306 with NEOBEE M-5 COSMETIC and STEPAN-MILD L3 Especially suitable for dry skin, this night cream combines seven natural moisturizers for substantial hydration. Also contains allantoin, a natural anti-irritant that moisturizes skin and helps to minimize the appearance of aging.

Interested? Connect with Stepan and let us help you bring these concepts into reality.



For further information, visit www.stepan.com/personalcare.

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"Natural" references a material with a <u>Biorenewable Carbon Index</u> (BCI) of 100. BCI is the number of biorenewable carbons (derived from plant, animal or marine based sources) divided by the number of total carbons in the idealized molecule.

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July 2020