

Stepan 

Personal Care

**Structured
Liquids
Technology**

Flexible Suspension

Envision the possibilities when using Structured Liquids Technology: a surfactant-based suspension system that can indulge the senses with fun textures, striking visual appeal, and a luxurious skin feel. Unlike other suspension technologies, this innovative surfactant system is:



Free of synthetic polymers and microplastics
Based on STEPAN-MILD® GCC, a 100% natural, vegetable-based emollient



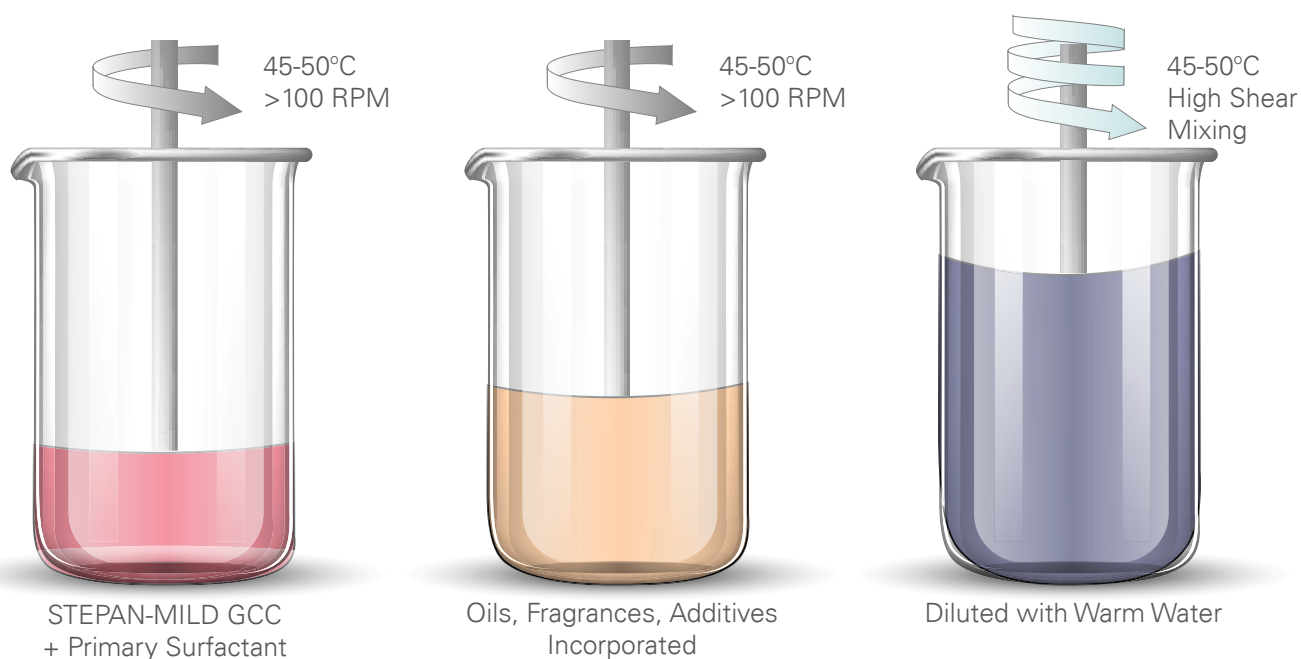
Flexible for the incorporation of almost any additive or ingredient
Adaptable for clear or opaque formulations



High yield stress and viscosity demonstrate stability in elevated temperatures, even up to 80°C
Thixotropic (shear-thinning) behavior

The Science Behind the Suspension

The Structured Liquids Technology relies on the Hydrophilic-Lipophilic Balance (HLB) of the ingredients in the formulation. To achieve the suspension power, STEPAN-MILD GCC interacts with the other surfactants in the formula to form multilamellar vesicles: liposome-like structures that provide substantial stability and yield stress, even in elevated temperatures.



A unique mixing procedure is employed to form this multilamellar vesicle system. STEPAN-MILD GCC and other surfactants are premixed together. Oils, fragrances, and other additives are then introduced followed by dilution with warm water and high shear mixing. Lastly, the material being suspended is added and mixed gently to avoid aeration.

Formulation Inspiration

Gentle Exfoliating Facial Wash with Charcoal

Formulation No. 1262

This naturally-derived, sulfate-free facial wash purifies skin with suspended activated charcoal that attracts dirt and oil that can clog pores. Mild cleansers gently wash away impurities leaving clean, soft skin.

Ingredient	% by weight
STEPAN-MILD GCC	14.00
ALPHA-STEP® PC-48	8.50
Glycerin	2.00
Sodium Benzoate	0.50
Fragrance #87995 (Belle Aire Creations)	0.25
Activated Carbon Norit CA1	0.15
Florabeads Jojoba	0.15
Argan Oil	0.10



Naturally-Derived, Sulfate-Free Sugar Scrub

Formulation No. 1270

Unlike oil-based sugar scrubs that are difficult to rinse off and can leave skin feeling greasy, this water-based sugar scrub suspends 70% sugar with naturally-derived, sulfate-free cleansers and moisturizers that rinse cleanly and easily to leave skin feeling touchably soft and smooth.



Ingredient	% by weight
Sugar	70.00
ALPHA-STEP PC-48	7.50
STEPAN-MILD GCC	5.00
Soybean Oil	4.50
Shea Butter	0.40
Fragrance #4200 (Chemia Corporation)	0.40

Sulfate-Free Moisturizing Face and Body Wash

Formulation No. 1272

This naturally-derived face and body wash has a lotion-like appearance and texture that transforms into a soft, luxurious foam in the shower! Suspended natural oils soften and moisturize dry skin, making every shower a spa-like experience.

Ingredient	% by weight
STEPAN-MILD GCC	13.50
Natural Oil (Soybean, Sunflower, or Coconut)	10.00
ALPHA-STEP PC-48	8.50
Farmal MS 6822 (Ingredient) <i>Sodium Hydroxypropyl Starch Phosphate</i>	3.00
Fragrance #87995 (Belle Aire Creations)	0.40



Typical Properties

STEPAN-MILD GCC

INCI Name	Glyceryl Caprylate/Caprates
Appearance	Off-White Paste
Actives	100%
Melting Point	24°C
Preservative	None

ALPHA-STEP PC-48

INCI Name	Sodium Methyl 2-Sulfolaurate and Disodium 2-Sulfolaurate
Appearance	Clear Yellow Liquid
Actives	37-40%
Pour Point	-5°C
Preservative	None

For full formulation details, visit www.stepan.com.

For further information, contact North America Technical Service at techserv@stepan.com or (800) 745-7837.

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