

Stepan 
Personal Care



Keeping a Close Eye on Sustainable Hair Performance

Presented by
Cyril Bajracharya & Renata Butikas
Stepan Company
April 21, 2022



Agenda

The Sustainability Market

Stepan's Sustainable Hair Care Portfolio

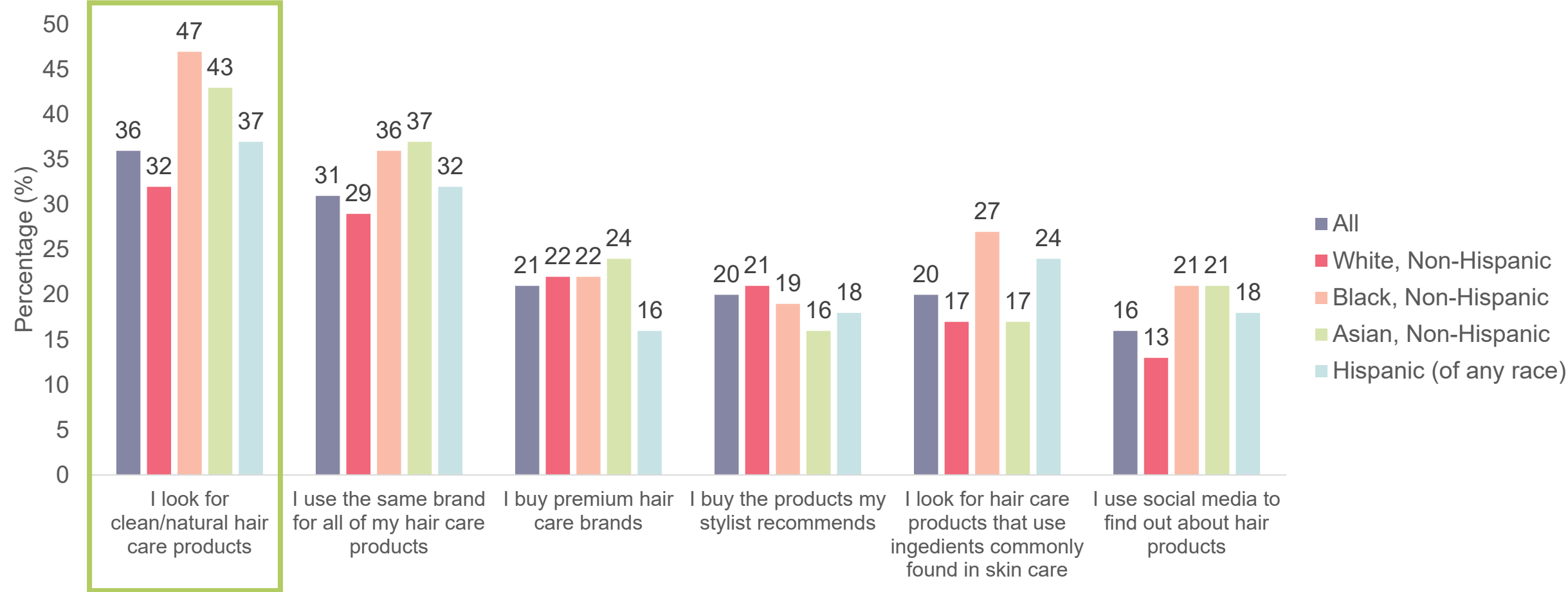
Performance Targets & Substantiation



The Sustainability Market

Sustainability for Consumers

Clean/natural products top interest in hair care



Sustainability for Brands

Green & Natural ingredients top interest in hair conditioner marketing for Europe



Wet Combing Performance



CETAC, BTAC, Polyquaternium Replacement



Green & Natural



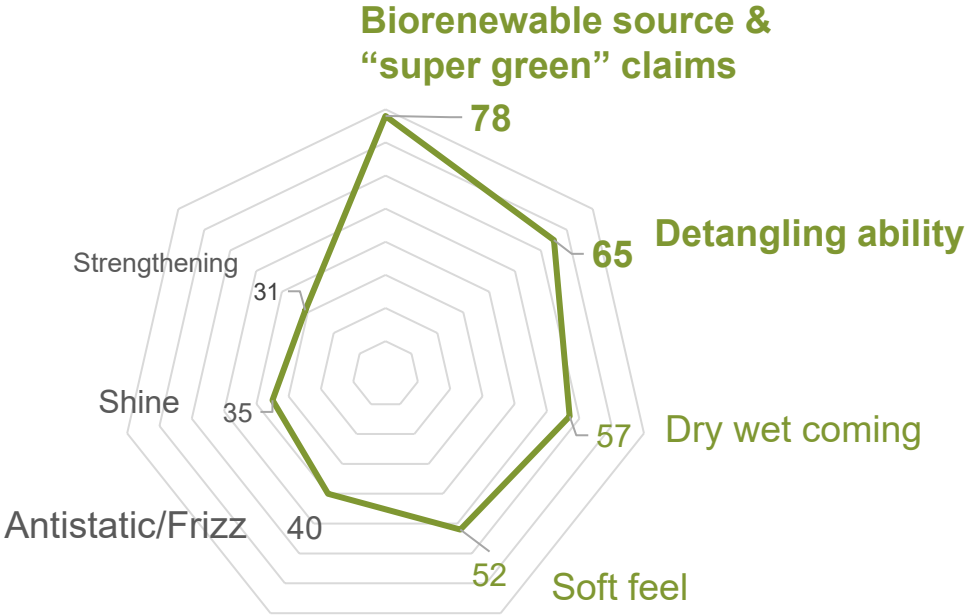
- North America
- Europe
- Asia/Pacific
- ROW

Stepan Market Research Study, 2021
BTAC = Behentrimonium Chloride
CETAC = Cetrimonium Chloride
ROW = Rest of world

Sustainability for Formulators



What are the critical needs for your formulation?



Biorenewable source claims top the interest



Detangling ability comes as a 2nd critical need, even before dry and wet combability



The need for soft feel also records >50%

Sustainability for Formulators

Top 3 issues formulators face when creating sustainable products



Lack of smooth and soft feel compared to conventional ingredients



Need to use higher percentage for performance, increasing formulation cost



Often difficult to formulate with



Stepan's Sustainable Hair Care Portfolio

Next Generation Conditioning Agents

Better, Naturally



STEPANQUAT® Helia



STEPANQUAT® Soleil

Ingredients

Disunfloweroylethyl Dimonium
Chloride (and) Sunflower Seed Oil
Glycerides (and) Lauryl Lactyl Lactate

Dioleoylethyl Hydroxyethylmonium
Methosulfate (and) Sunflower
Seed Oil Glycerides

ISO 16128 Score*

0.88

0.88

Actives %

95

100

Free From

Sulfates, Silicones, Preservatives,
Glycols & Ethanol

Silicones, Preservatives,
Glycols & Ethanol

*Stepan calculates Natural Origin Content based on biorenewable carbon content and excludes balance water and impurities/byproducts

Easy-to-Use

Addressing the 1st and 2nd top issues formulators face with current sustainable solutions



Easy-to-Use
High-Active
Liquid

No Regulatory
Use-Level
Restrictions



Easy-to-Use
High-Active
Liquid

No Special
Handling
Requirements

Cold
Processable



Versatile for use in:

- Conditioners
- Treatments
- Masks
- Deep Conditioners
- Leave-in Products
- Styling Products
- Shampoo

Watch it in Action!



Which One to Choose?

STEPANQUAT Helia

STEPANQUAT Soleil

Source

Non-GMO, NA-Grown
Sunflower Oil

Non-GMO, EU-Grown
Sunflower Oil

Sulfate-Free

Yes

No

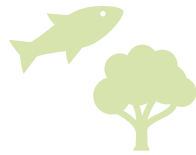
Registrations

Americas & Europe

Global Compliance
TSCA



So...then
what about
performance?



Eco-friendly



Renewable
Feedstocks



Biodegradable



Performance Targets & Substantiation

Performance Targets



No Tangles



Shine

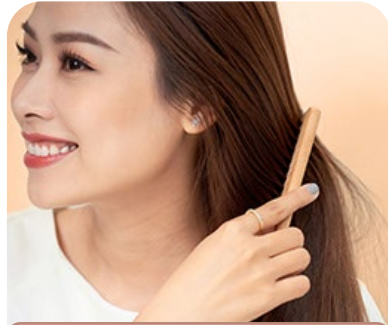


No Frizz

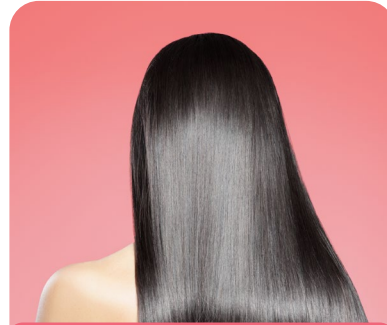


Volume

Substantiation



No Tangles



Shine



No Frizz



Volume

Instrumentation

Dia-Stron
MTT690

BossaNova
SAMBA

BossaNova
BOLERO

BossaNova
BOLERO

Claims

Wet Combing
Dry Combing

Shine

Frizz Reduction

Volume

Output

Force Value

Luster Value
Image Analysis

%Change Value
Image Analysis

%Change Value
Image Analysis

Experimental Details

Ingredient	% by weight
Deionized Water	q.s. to 100.0
Hydroxyethylcellulose	0.7
<i>Conditioning Agent</i>	<i>2% active</i>
Cetyl Alcohol	2.0
Potassium Chloride	0.5
Sodium Hydroxide, 50% soln.	q.s.
TOTAL	100.0

Formulation adjusted to final pH of 3.5-4.5



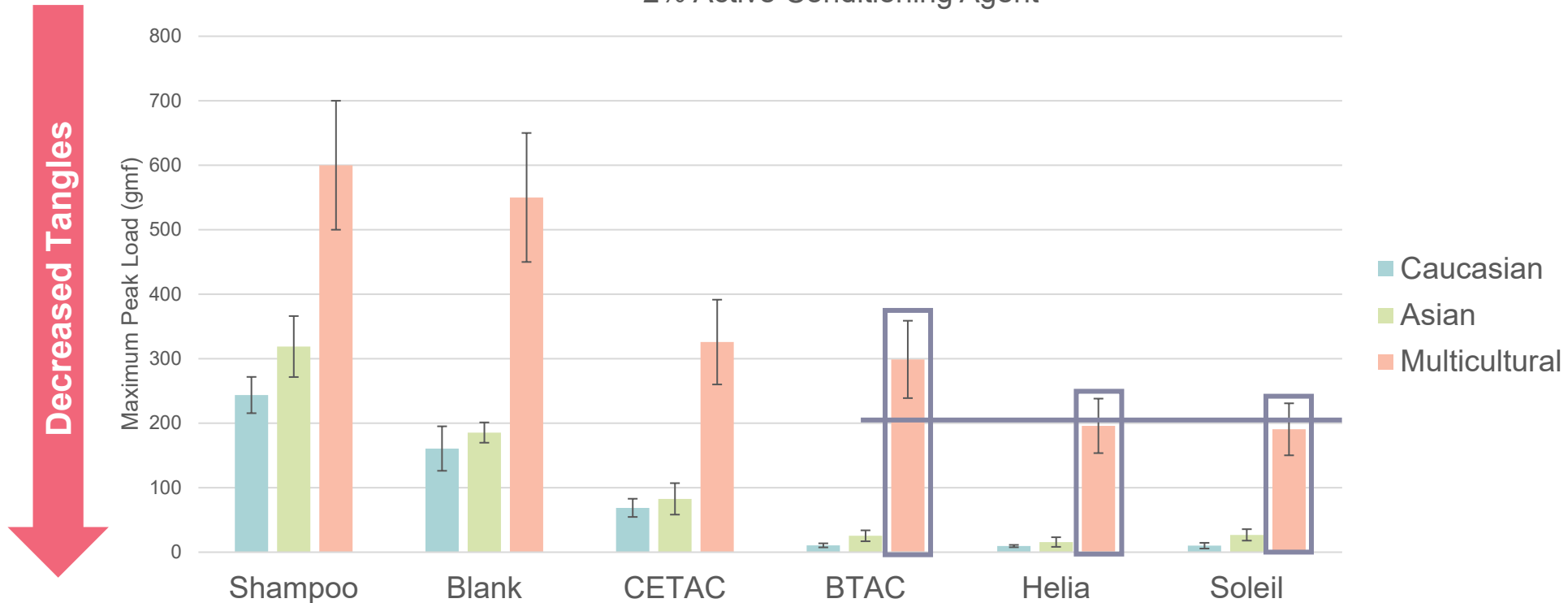
- ✓ Standardized Formula
- ✓ Constant Concentration
- ✓ Conventional Benchmarks
 - BTAC
 - CETAC



No Tangles

STEPANQUAT Helia & STEPANQUAT Soleil outperform BTAC on multicultural hair

Wet Detangling via Dia-Stron
2% Active Conditioning Agent

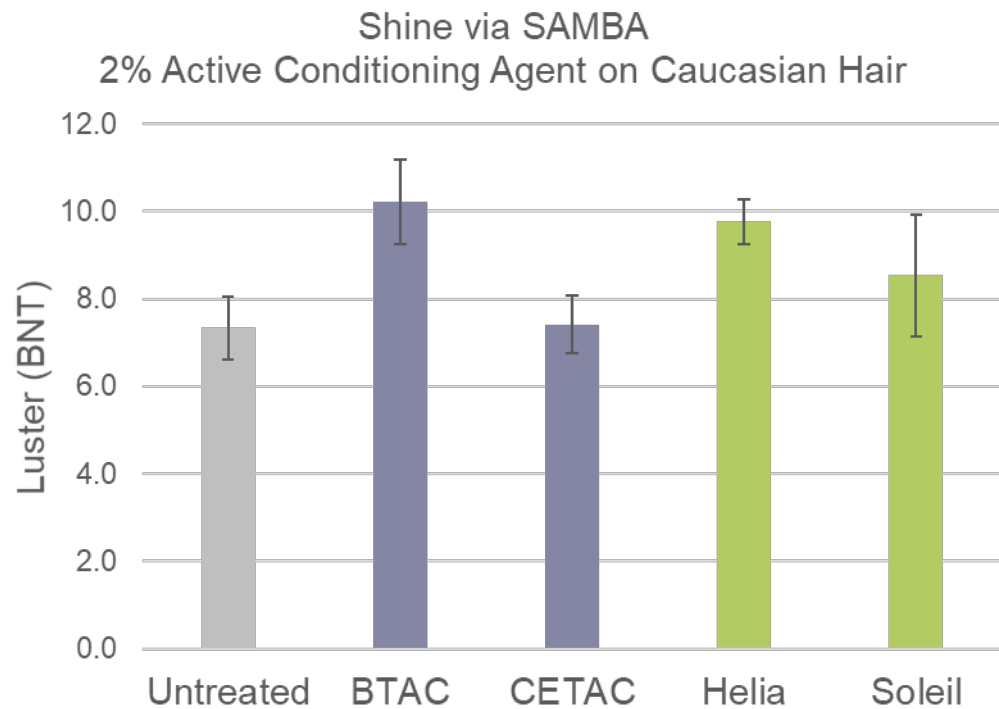


Testing parameters = 3 tresses with 10 comb-through's each
BTAC = Behentrimonium Chloride
CETAC = Cetrimonium Chloride
Helia = STEPANQUAT Helia
Soleil = STEPANQUAT Soleil

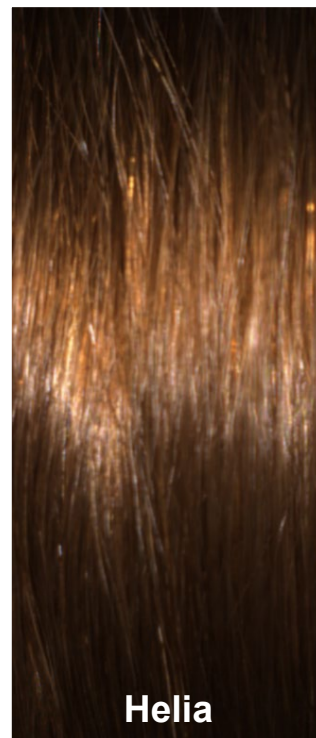


Shine

STEPANQUAT Helia & STEPANQUAT Soleil perform equally to BTAC



Untreated



Helia



Soleil



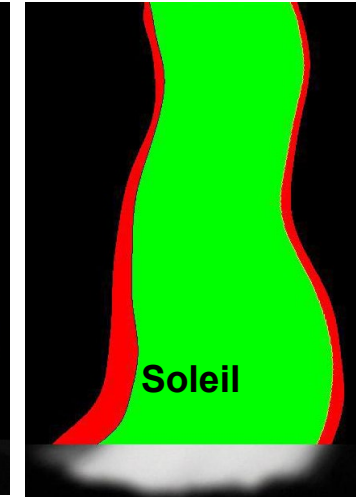
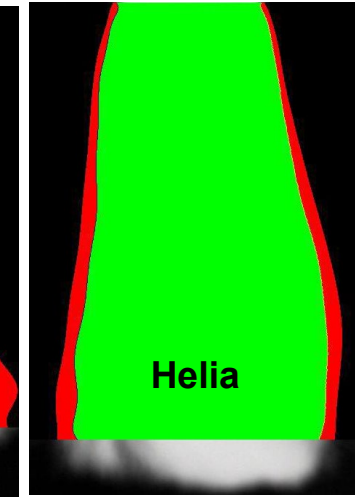
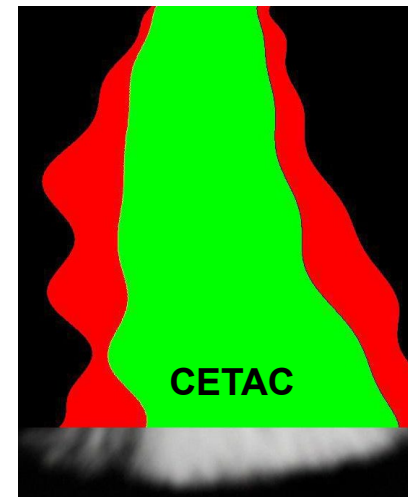
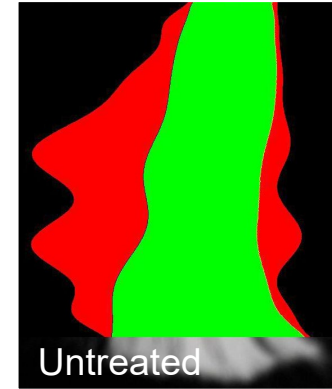
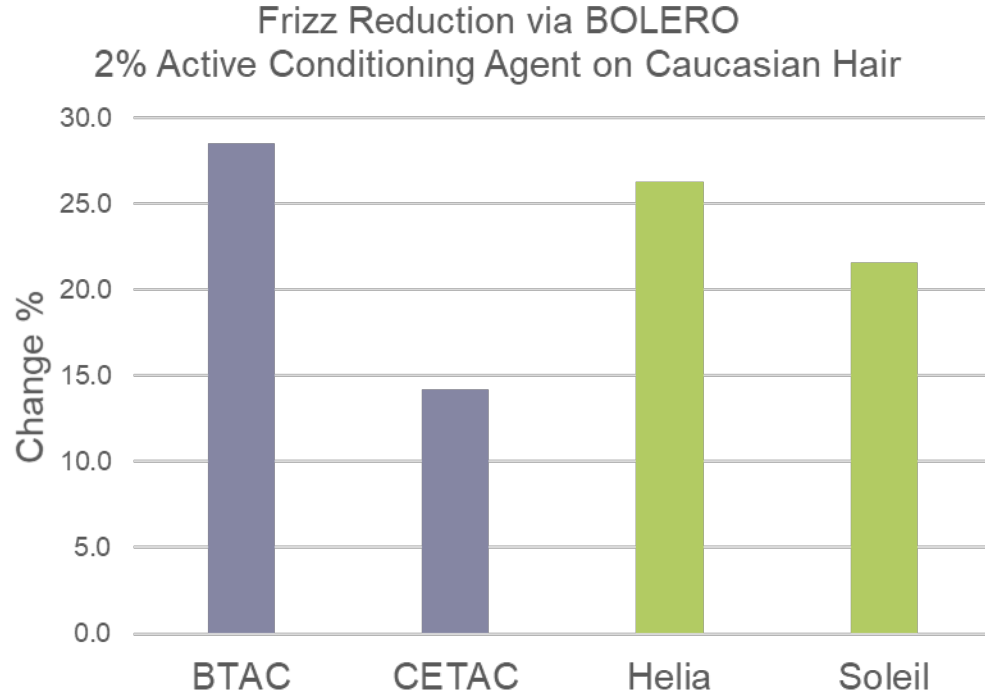
BTAC

Testing parameters = 6 tresses with 10 measurements each



No Frizz

STEPANQUAT Helia & STEPANQUAT Soleil outperform CETAC

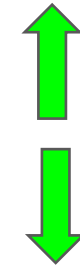
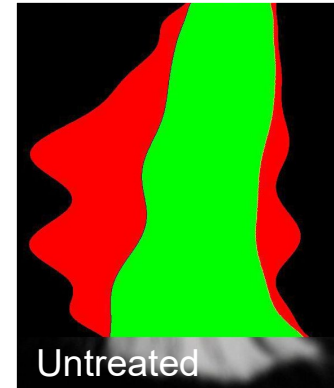
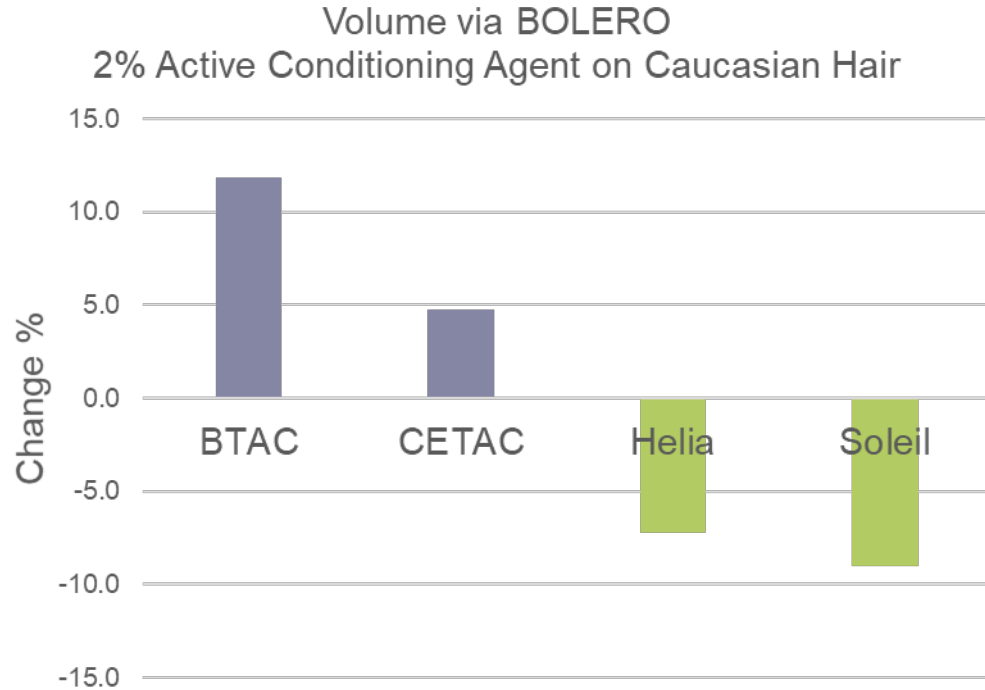


Testing parameters = 6 tresses with 10 measurements each



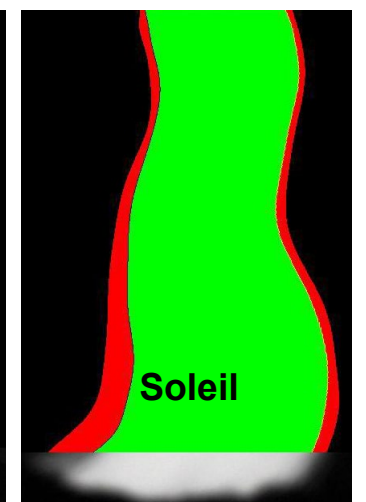
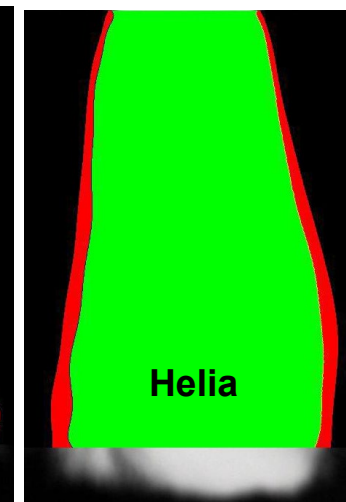
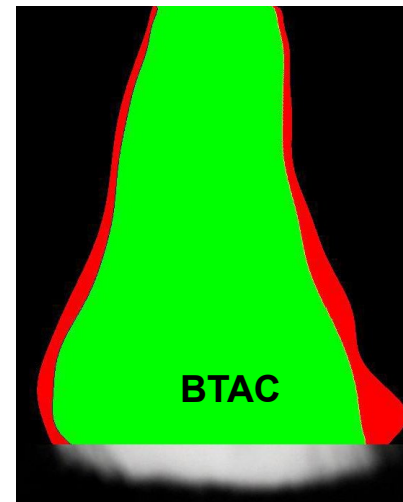
Volume

STEPANQUAT Helia & STEPANQUAT Soleil excel for textured hair care



Volume

Volume Control



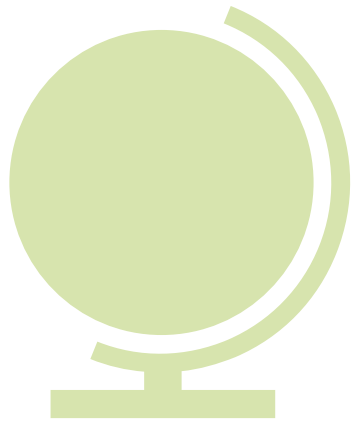
Testing parameters = 6 tresses with 10 measurements each

Performance is Equal

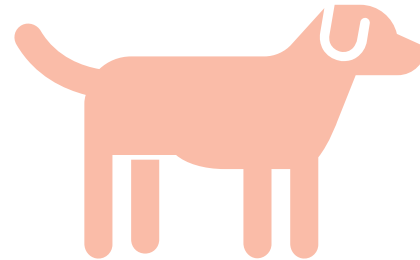
Addressing the 3rd top issue formulators face with current sustainable solutions



Only Considerations Needed:



Region



Application



Claims

Next Generation Conditioning Agents

Better, Naturally



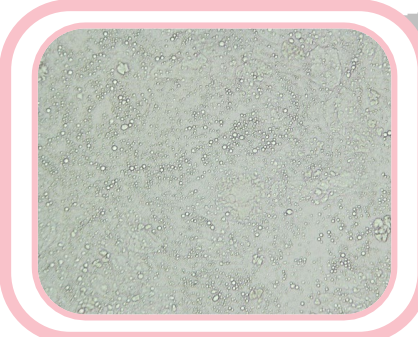
STEPANQUAT
Helia



STEPANQUAT
Soleil

Global Development

Reach out to our formulation experts around the world



Northfield, IL
(Headquarters)

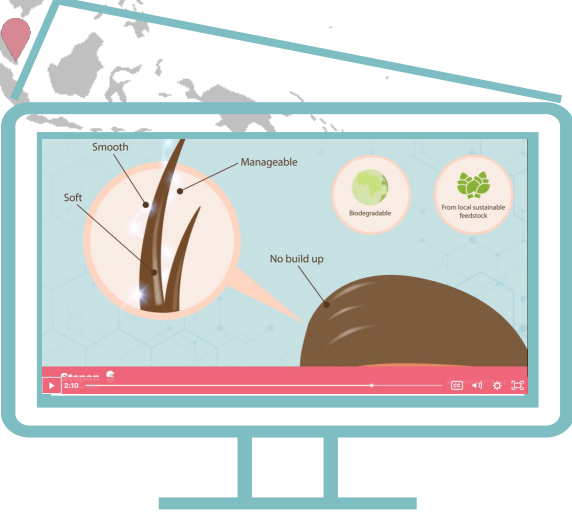
Mexico City /
Ecatepec, Mexico

São
Paulo,
Brazil

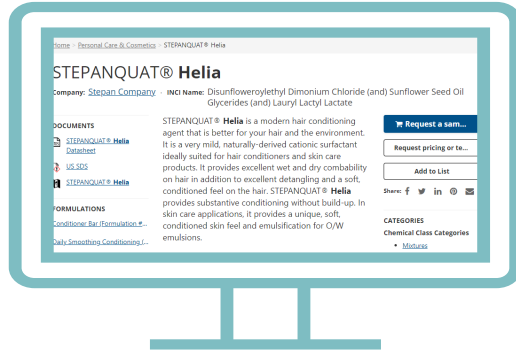
Voreppe,
France



Jurong
Island,
Singapore



Resources Available



UL Prospector

- Find product details
- Explore formulations
- Request samples
- Contact us



Stepan's Website

- Watch new videos
- Discover curated formulation collections
- Learn about our latest innovations



Industry Events

- Stop by at NYSCC Suppliers' Day
- Visit the Incosmetics Global virtual platform

Real-Time Support

Take advantage of Stepan's Virtual Lab

Stepan's **Virtual Collaboration Lab** is available to you for live demonstrations or formulation troubleshooting!

- Reach out to your local sales representative
- Contact us through UL Prospector



Stepan 
Personal Care



Thank you!

Visit stepan.com/personalcare
for more information.

Follow us on:



2022 © Stepan Company. All Rights Reserved.
STEPANQUAT® are registered trademarks of Stepan Company.
The information contained herein is based on the manufacturer's own study and the works of others and is subject to change without prior notice. The information is not intended to be all-inclusive, including as to the manner and conditions of use, handling, storage or disposal or other factors that may involve additional legal, environmental, safety or performance considerations. Nothing contained herein grants or extends a license, express or implied, in connection with any patents issued or pending of the manufacturer or others, or shall be construed as a recommendation to infringe any patents. STEPAN COMPANY MAKES NO PRODUCT WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR USE, EXPRESS OR IMPLIED, AND NO OTHER WARRANTY OR GUARANTY, EXPRESS OR IMPLIED, IS MADE, INCLUDING AS TO INFORMATION REGARDING PERFORMANCE, SAFETY, SUITABILITY, STABILITY, ACCURACY, COMPLETENESS, OR ADEQUACY. Stepan Company (and its employees, subsidiaries and affiliates) shall not be liable (regardless of fault) to the vendee, its employees, or any other party for any direct, indirect, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy, furnishing, use, or reliance upon information provided herein. The vendee assumes and releases Stepan Company (and its employees, subsidiaries and affiliates) from all liability, whether in tort, contract or otherwise to the fullest extent possible under the relevant law.