

# Citropol HA<sup>®</sup>

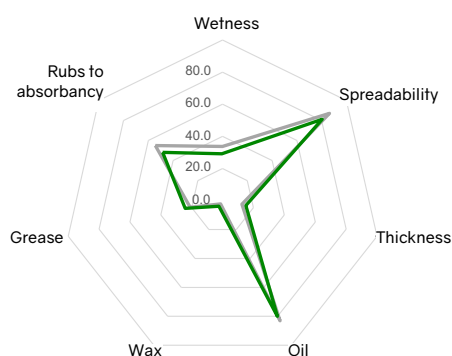
Citropol<sup>®</sup> HA is an emollient with a non-volatile, silicone-like sensory profile. Its medium viscosity and lightweight feel make Citropol HA a viable alternative to dimethicone 100 cPs. Citropol HA imparts distinct lubricating properties with rich shine and feel in personal care and cosmetics formulations, even in concentrations as low as 1%. Citropol HA is compatible in skin care, hair care, deodorant, antiperspirant, and color cosmetic applications.

All P2 Science products are biorenewable, biodegradable, and biocompatible. They do not compromise human and environmental safety.

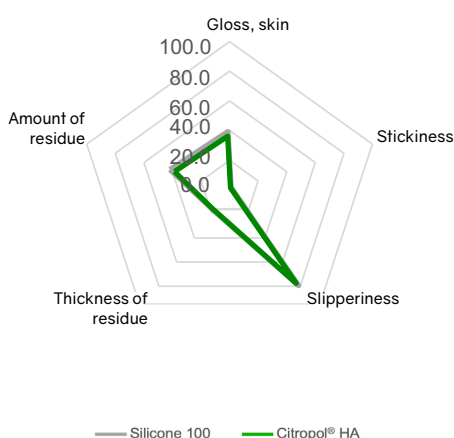
**INCI: Polycitronellol Acetate**



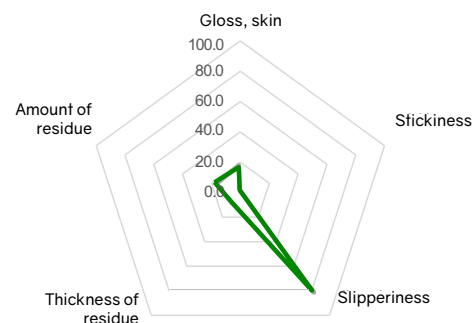
## Rub Out



## Immediate Afterfeel



## 20 Minute Afterfeel

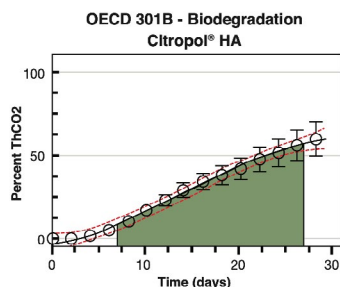


## Renewability

Citropol<sup>®</sup> HA is sustainably manufactured from naturally-derived feedstocks. It is made to meet the highest standards of the cosmetics and personal care industries. The raw material terpenes are Forest Stewardship Council (FSC) certified pine, and are upcycled via side-stream turpentine from the paper making process.

## Biodegradability

Citropol<sup>®</sup> HA is inherently biodegradable according to the OECD 301B biodegradability test.



## Comparison Data

	Citropol HA	Silicones
Biodegradable	✓	✗
Low E-factor	✓	✗
Renewable	✓	✗
Clean label	✓	✗
Long lasting	✓	✓
Non-greasy	✓	✓
Slippery	✓	✓



Elegant  
Processes.  
Sustainable  
Products.

# About Citropol HA

## Representative Properties

Appearance	Translucent liquid
Odor	Odorless
Color	Clear to slight yellow
Viscosity (mPa·s @ 25°C)	85 - 110
Refractive index @ 20°C	1.4 - 1.5
Surface tension (mN/m)	27 - 33
Density (g/mL)	0.850 - 0.950
Boiling point (°C)	> 200
Solubility	Soluble in alcohols and oils
pH	6.5 - 7.5
Bio-based (%)	> 90%



### Did You Know?

Citropol® is made by a clean, mild, and high yielding conversion process called Process Intensified Continuous Etherification (PICE™).

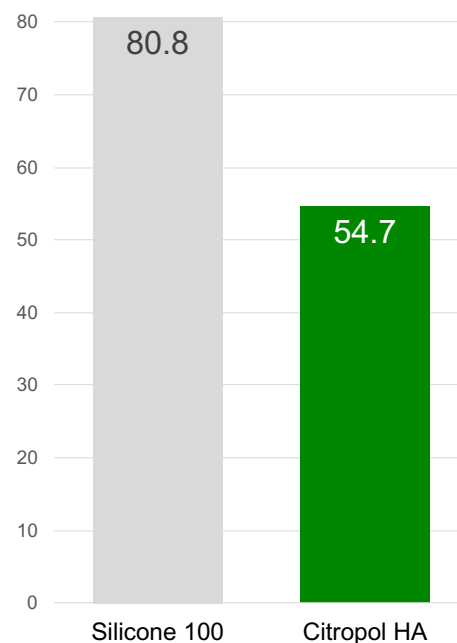
## Physico-Chemical Properties Comparison

Silicone 100 vs. Citropol HA

	Citropol® HA	Dimethicone 100 cPs
Flashpoint (°C)	>150	>150
Viscosity (cPs @ 25°C)	100	98
Surface tension (mN/m)	29	21
Refractive index	1.46	1.40

## % Build-Up After 10 Applications

Silicone 100 vs. Citropol HA





# Our Commitment to Sustainability

For every kilo of Citropol® HA sold,  
P2 Science will sponsor the planting of a tree.

Learn more about our Plant a Forest Initiative at  
<http://p2science.com/about-us/>.



1 Kilo of Product Sold



1 Tree Planted



1 Ton of CO<sub>2</sub> Absorbed

**For more information and samples,  
please contact:**

[sales@p2science.com](mailto:sales@p2science.com)

[p2science.com](http://p2science.com)



Elegant  
Processes.  
Sustainable  
Products.

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