

Citropol 1A[®]

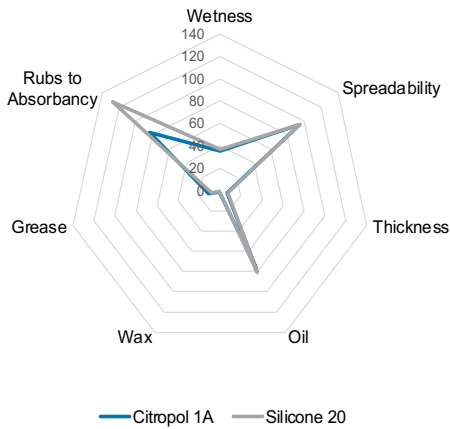
Citropol[®] 1A is a low molecular-weight liquid polymer that is made from terpenes derived from the forest. Citropol 1A imparts distinct lubricating properties in skin-care and hair-care formulations. Even in concentrations as low as 1%, the result is a slippery, silky formulation. Citropol 1A is a valuable component in a range of applications in the beauty industry: cosmetics, skin care, hair care, fragrance, deodorants, and moisturizers.

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

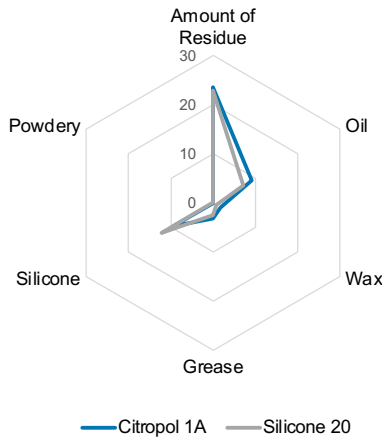
INCI: Polycitronellol Acetate



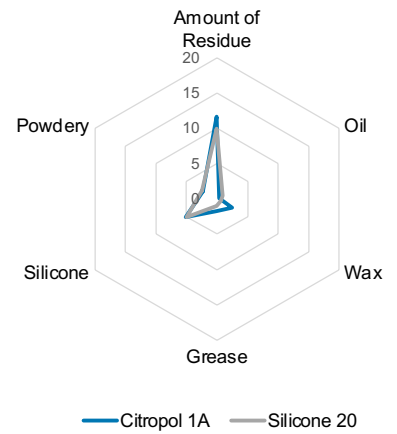
Rub Out



Immediate Afterfeel



20 Minute Afterfeel

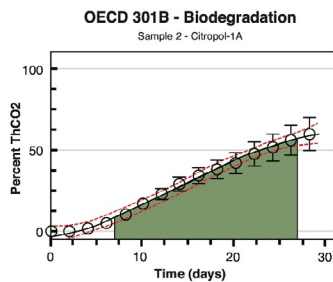


Renewability

Citropol[®] 1A 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[®] 1A is inherently biodegradable according to the OECD 301B biodegradability test.



Comparison Data

	Citropol 1A	Silicones
Biodegradable	✓	✗
Low E-factor	✓	✗
Renewable	✓	✗
Clean label	✓	✗
Long lasting	✓	✓
Non-greasy	✓	✓
Slippery	✓	✓

About Citropol 1A

Representative Properties

Appearance	Clear, liquid
Odor	Odorless
Color	Colorless to slight yellow
Viscosity (mPa·s @ 25°C)	20 - 50
Refractive index @ 20°C	1.4 - 1.5
Surface tension (mN/m)	25 - 35
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

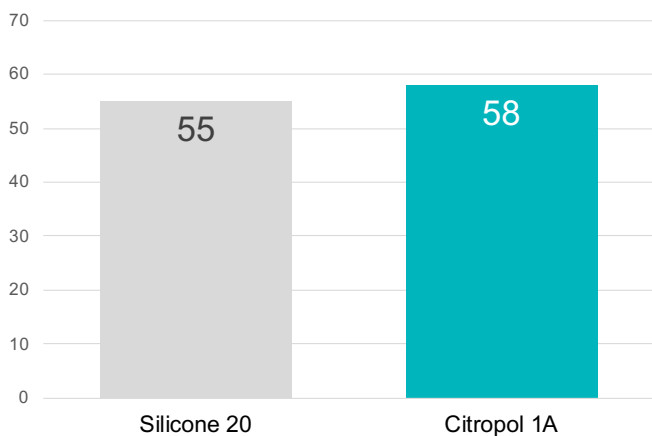


Did You Know?

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

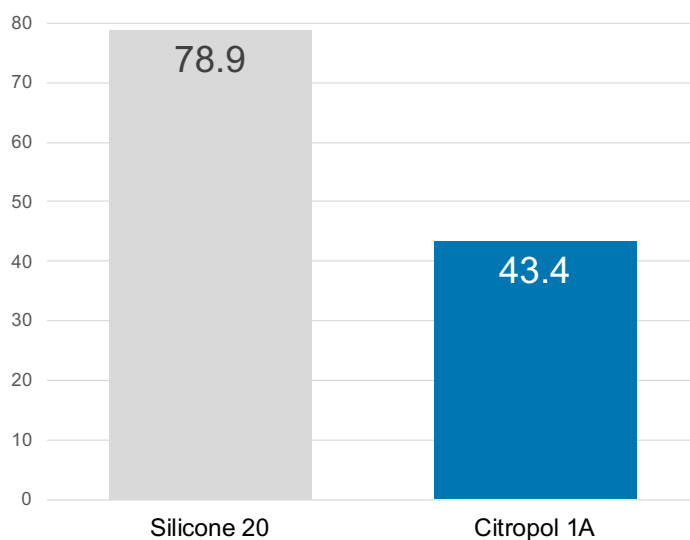
Anti-Frizz - % Decrease in Frizz

Silicone 20 vs. Citropol 1A



% Build-Up After 10 Applications

Silicone 20 vs. Citropol 1A



Elegant
Processes.
Sustainable
Products.

Our Commitment to Sustainability

For every kilo of Citropol® 1A 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 CO₂ Absorbed

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

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p2science.com



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