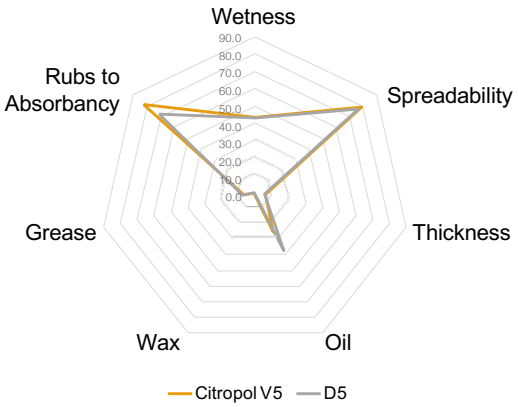
Citropol V5®

Citropol® V5 imparts distinct volatility and spreadability properties, providing a natural alternative to low viscosity, volatile silicones. This volatile emollient will allow formulators to create high-performing, renewable, biodegradable products when used as low as 1% in cosmetic and personal care products. Citropol V5 is compatible in skin care, hair care, deodorant, and anti-perspirant applications.

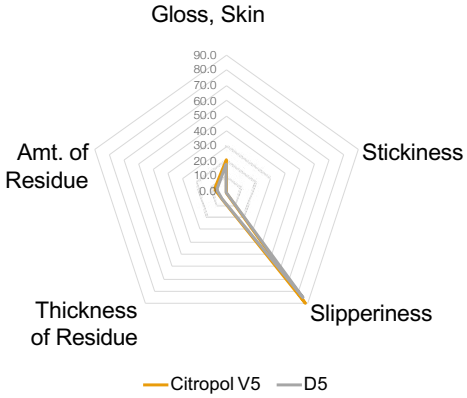
All P2 Science products are biorenewable, biodegradable, and biocompatible. They do not compromise human and environmental safety.

INCI: Polycitronellol Acetate, Undecane, and Tridecane

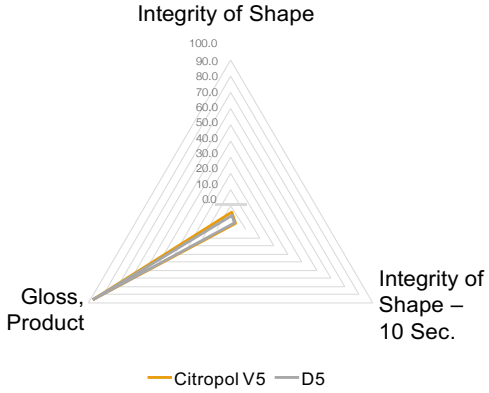
Rub Out



Immediate Afterfeel



Shape and Gloss



Renewability

Citropol® V5 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® V5 is inherently biodegradable according to the OECD 301B biodegradability test.

Comparision Data

	Citropol V5	Silicones
Biodegradable	✓	✗
Low e-factor	✓	✗
Renewable	✓	✗
“Clean Label”	✓	✗
Long Lasting	✓	✓
Non-Greasy	✓	✓
Slippery	✓	✓

P2 Elegant Processes. Sustainable Products.

join resources, build solutions connect CHEMICALS

About Citropol V5

Representative Properties

Appearance	Translucent liquid
Odor	Slight
Color	Clear to slight yellow
Viscosity (mPa·s @ 25°C)	2.5 - 5.5
Refractive Index @ 20°C	1.4 - 1.5
Surface Tension (mN/m)	25 - 30
Density (g/mL)	0.810 - 0.840
Boiling Point (°C)	> 200
Solubility	Soluble in alcohols and oils
pH	4.0 - 7.0
Bio-Based (%)	> 95%

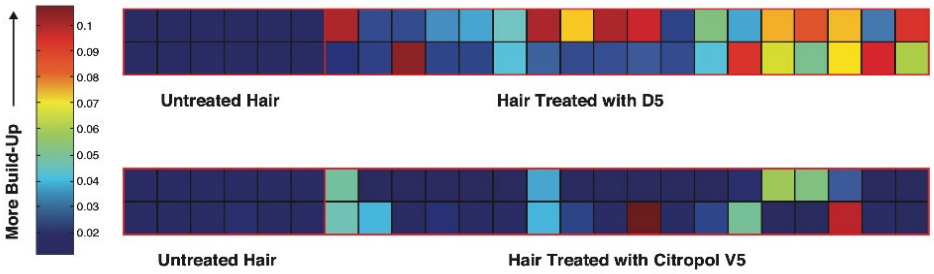
Did You Know?

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

Build-Up

Silicone D5 vs. Citropol V5

FTIR imaging of the surface of hair showing significantly less build-up when using Citropol® V5 as compared to Silicone D5.



Heat Protection

Silicone D5 vs. Citropol V5

The use of **Citropol® V5 protects hair against heat damage** with a flat iron at 450°F.

The use of Silicone D5 does not.

When compared with Silicone D5, the use of **Citropol V5 increases the matrix crosslink density, denaturation temperature is statistically higher.**

Our Commitment to Sustainability

For every kilo of Citropol® V5 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_2 Absorbed

For more information and samples, please contact:

sales@p2science.com | p2science.com

P2 Elegant Processes. Sustainable Products.