

Arbalon™ R-50

cellulose liquid

The bio-based solution
for powerful suspension
in skin and hair cleansers

**Maximizes stability in
surfactant-based systems**

**Creates effective formulations
with exceptional aesthetics**

**Works synergistically
with other thickeners**

Arbalon™ R-50 cellulose liquid

To better help you exceed your sustainability goals and customer expectations, we're continually enhancing our portfolio of nature-based alternatives. These top-performing, aesthetically pleasing ingredients are made with the highest level of expertise, quality and eco-consciousness possible. Lubrizol is proud to include Arbalon™ R-50 cellulose liquid in our growing portfolio.

Features and Benefits:

- Exceptional aesthetics in numerous applications
- Cold processable and easy to disperse

Description

It's no longer enough for rheology modifiers to simply perform well—they need to drive more eco-friendly personal care formulations as well. Arbalon™ R-50 cellulose liquid achieves both, producing high-performing formulations with low environmental impact. Derived through fermentation as a reticulated net-like structure of insoluble fibers, Arbalon™ R-50 cellulose liquid creates a true yield value without significantly affecting formulation viscosity. Now you can create suspension in formulations as water-thin as foaming hand washes or as thick as salt-thickened body washes. What's more, this non-ecotoxic ingredient offers you outstanding versatility in formulation due to its many unique advantages.



Applications

Arbalon™ R-50 cellulose liquid is a highly versatile, fermentation-derived rheology modifier that creates robust suspension in skin and hair cleansers.

Naturally Derived Solution – Arbalon™ R-50 cellulose liquid

Fermentation-derived cellulosic rheology modifier for suspension in skin/hair cleansers.

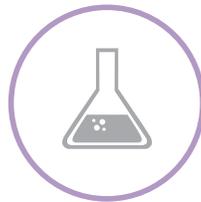


INCI

Glycerin, Cellulose, Cellulose Gum

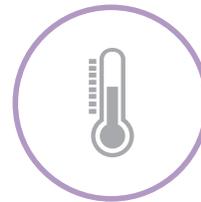


RCI = 0.99



RECOMMENDED USE LEVEL

2-10 wt% as supplied



PROCESSING TEMPERATURE

Cold processable



SHELF LIFE

24 Months

Performance Comparison

	Commercial Nanocellulose	Arbalon™ R-50 cellulose liquid
Ease of Processing	+	+++
Ability to Suspend	+	+++
Formulation Stability	+	+++

Arbalon™ R-50 cellulose liquid offers better product performance than commercial nanocellulose.

Commercial Nanocellulose

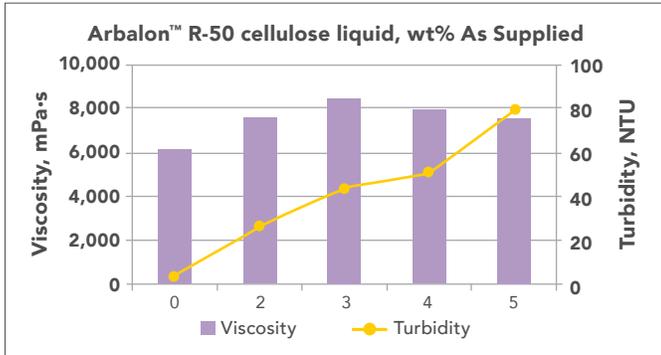


Arbalon™ R-50 cellulose liquid



Mild Surfactant Chassis (Glutamate) with Glucamate™ thickener.

4 wt% active Disodium Cocoyl Glutamate, 5 wt% TS Cocamidopropyl Betaine, 3 wt% TS Coco-glucoside, 2.8 wt% TS Glucamate™ VLT thickener, pH 5.5.



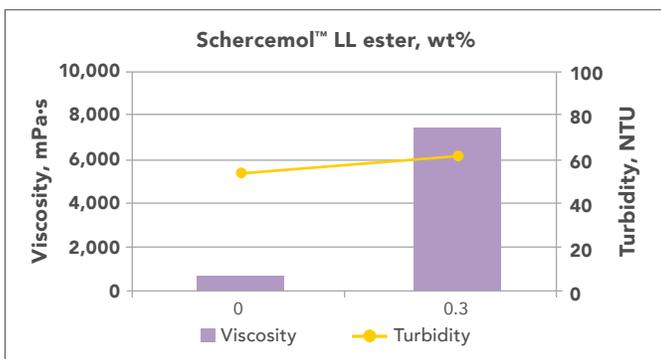
Synergistic suspension is achieved in the mild sulfate-free surfactant chassis.

Suspension of large beads using Arbalon™ R-50 cellulose liquid



Mild Surfactant Chassis (Isethionate) with Schercemol™ LL ester.

4 wt% TS Sodium Lauroyl Isethionate, 6 wt% TS Cocamidopropyl Betaine, 5 wt% As Supplied Arbalon™ R-50 cellulose liquid, pH=5.8.



Schercemol™ LL ester helps to increase viscosity and suspension with Arbalon™ R-50 cellulose liquid.

Arbalon™ R-50 cellulose liquid	Particle Suspension
wt% As Supplied	3 Month 45°C
0	All Failed (L, M, S, MS, SS, Mica)
2	S, MS and SS Passed
3	M, S, MS and SS Passed
4	All Passed (L, M, S, MS, SS, Mica)
5	All Passed (L, M, S, MS, SS, Mica)

Particle types tested:

- L (large beads)
- M (medium beads)
- S (small beads)
- MS (medium scrub particles)
- SS (small scrub particles)
- Mica

Schercemol™ LL ester (Viscosity Builder)	Particle Suspension
wt% As Supplied	3 Month 45°C
0	All Failed (M, SS)
0.3	SS Passed

Particle types tested:

- M (medium beads)
- SS (small scrub particles)

Suspension of small scrub particles using Arbalon™ R-50 cellulose liquid and Schercemol™ LL ester

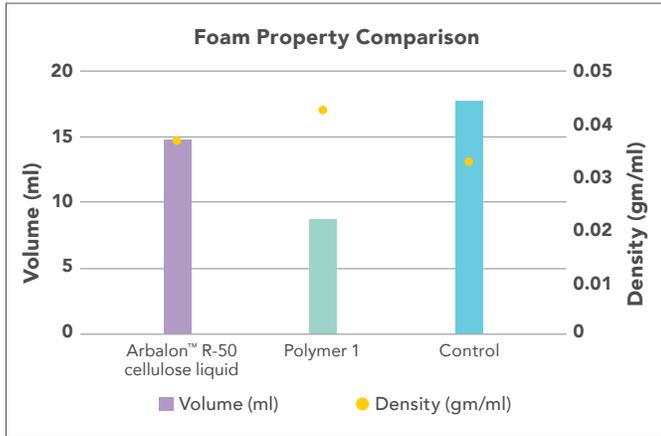


0%

0.3%

Foam Evaluation

Arbalon™ R-50 cellulose liquid provides luxurious foam.

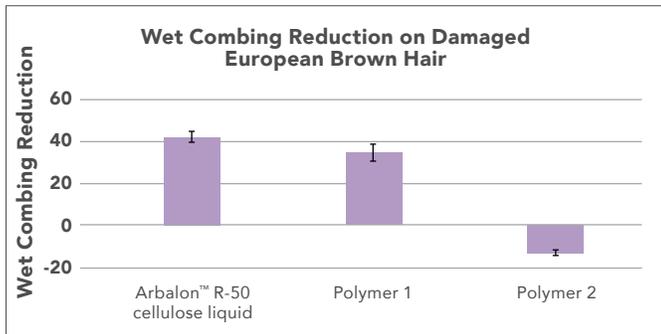


Note:

1. The result is based on washing hands and human hair tresses.
2. Each bar represents the average of five hand or hair tress washing.
3. Control is the formula and does not contain rheology modifier.

% Wet Combing Study

Formulas containing Arbalon™ R-50 cellulose liquid materials show better wet combing than formulas containing other polymers.



Arbalon™ R-50 cellulose liquid products are manufactured by CP Kelco U.S., Inc. Arbalon™ is a trademark of CP Kelco and is used under license.

Lubrizon has a global agreement with CP Kelco for this product in the beauty and personal care markets.