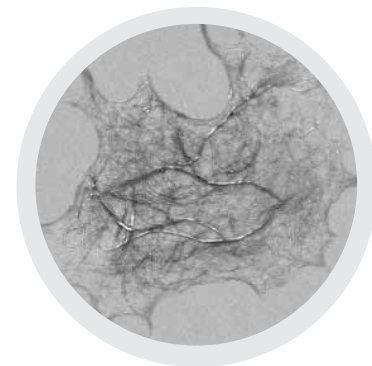




# A Natural and Multifunctional Performance Enhancer



*Exilva is a natural, cellulose-based performance enhancer, ideally suited to improve the rheological behavior and sensory properties of cosmetic products. Its unique, 3D microfibrillar structure*

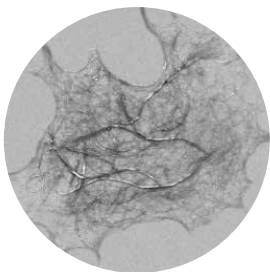
*increases the viscosity and stability of formulas, allows significant reduction of combing force for hair care formulas, and gives soft focus and anti-wrinkle effects.*

## Composition & Formulation

Exilva is produced with the wood of Norway Spruce (non-GMO)

INCI NAME: *Cellulose*

SEM Image:  
Exilva cellulose microfibrils form 3D aggregates, in the micron size range



Name	Form	Concentration in Water
Exilva FM 02-L	Suspension	2 %
Exilva FM 02-V	Paste	10 %

Note: also contains preservatives

- **Formulation:** Introduce Exilva in the water/polar phase and thoroughly disperse it with high shear.
- Cold processable and easy to pump.
- High tolerance to salts (10%) and ethanol (50%) in the formulas

## Soft Focus and Anti-Wrinkle Effect

Exilva microfibrils form flexible 3D aggregates, able to diffuse light on the skin surface and minimize the appearance of skin imperfections.

The benefits of Exilva have been tested on a panel and with FOITS (Fast Optical In Vivo Topometry) techniques.

## Rheology Enhancer

With extreme shear thinning and fast viscosity recovery, Exilva increases the ability to spray thick formulations and improves the stability of dispersions.



Without Exilva      With Exilva

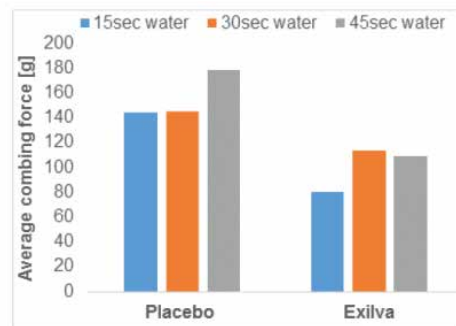
This O/W Spray formulation does not drip when 0.3 % Exilva is added.

## Hair Conditioning

Exilva 3D network has a high available surface area and functional OH-groups, enabling it to physically and chemically interact with hair surface.

*Combing forces for bleached, European hair meshes after washing with and without an Exilva formulated conditioner*

*Also tested with grey hair meshes.*



Borregaard

KOBO



KFL-160

## OTC Acne Spot Treatment with Exilva FM 02-V

### Part 1

- Deionized Water 61.29%
- Ritaquta 400 - RITA: *Polyquaternium-10* 0.20%

### Part 2

- **Exilva FM 02-V - Borregaard/Kobo Products:**  
*Water (And) Cellulose* 15.12%

### Part 3

- Denatured Ethanol - Chemical.net: *Alcohol* 8.06%
- Salicylic Acid USP Powder - Universal Preserv-A-Chem:  
*Salicylic Acid* 2.00%

### Part 4

- Potassium Hydroxide, 30% Solution (w/volume) - LabChem:  
*Water (And) Potassium Hydroxide* 2.95%

### Part 5

- Glycerin U.S.P. F.C.C. 96% - Ruger Chemical: *Glycerin* 6.05%
- Zemea® - DuPont & Tate: *Propanediol* 3.53%
- Phenoxetol® - Clariant: *Phenoxyethanol* 0.80%

### Manufacturing Procedure

1. Disperse Polyquaternium-10 into water (Part 1) using fast speed propeller agitation. Fast propeller mix for at least 30 minutes until the phase is clear and smooth.
2. Transfer batch to a homogenizer and add Part 2 using adequate homogenization to turn batch over. Homogenize thoroughly to remove all lumps and until the batch is completely smooth.
3. Add Part 3 ingredients, one at a time, with moderate homogenization.
4. Add Part 4 to batch with moderate homogenization. When the batch is uniform, take the pH. (The batch must have a pH between 4.35-4.75 before continuing). If the pH of the batch is less than 4.35, homogenize in 0.02% batch weight increments of additional Part 4 until the pH falls within specification.
5. Premix Part 5 and add to the batch with moderate homogenization.

### Description

For on-the-spot, overnight, acne treatment, shake product well and dispense a small amount. **Exilva FM 02-V** is the product's primary gelling and suspending agent that can tolerate the low pH and high level of solubilized salicylic acid. **Exilva FM 02-V** also exhibits the unique property of thinning under shear so product can be shaken and mixed easily, then return to its original gel-like state for on-the-spot application.

*This formula requires a shaker ball with a small orifice applicator.*



KEY-088

## Ultra Metallic Finish Eye Shadow with Exilva FM 02-L

### Part 1

- Deionized Water 71.10%
- **Exilva FM 02-L - Borregaard/Kobo Products:** *Water (And) Cellulose* 1.00%

### Part 2

- Glycerin U.S.P. Natural 96% - Van Waters and Rogers: *Glycerin* 5.00%
- **MAKIMOUSSE 12 - Daito/Kobo Products:**  
*Sodium Polyacrylate Starch* 1.00%
- PHENOXETOL - Clariant: *Phenoxyethanol* 0.90%

### Part 3

- **KTZ® SM BRASSY BRONZE - Kobo Products:**  
*Synthetic Fluorophlogopite (And) Iron Oxides (CI 77491)* 11.00%

### Part 4

- **KOBOGUARD® 50AMP - Kobo Products:**  
*Acrylates/Ethylhexyl Acrylate Copolymer (And) Water (And) Aminomethyl Propanol* 10.00%

### Manufacturing Procedure

1. Slurry Part 2.
2. Add Part 2 to Part 1 while mixing.
3. Add Part 3 slowly.
4. Add Part 4 and mix until homogeneous.

### Description

This Ultra Metallic Finish Eye Shadow features **Exilva**, a water-based natural thickener and stabilizer. **KTZ® SM BRASSY BRONZE** imparts color and a metallic-like visual effect. **KOBOGUARD® 50AMP** is used to produce a long-wearing film and provide water resistance. **MAKIMOUSSE 12** provides controlled moisture release during application while also giving the product a mousse-like, velvety texture.