



## Specifications and Characteristics

|                          | A-Sensofeel MFC               | E-Sensofeel MFC 5                               | E-Sensofeel MFC 8  |
|--------------------------|-------------------------------|---|--|
| INCI                     | Cellulose, Glycerin, Water    | Water, Pentylene Glycol, Cellulose, Xanthan Gum | Water, Glycerin, Cellulose, Caprylyl Glycol, Xanthan Gum |
| CAS REG. N°              | 9004-34-6, 56-81-5, 7732-18-5 | 7732-18-5, 5343-92-0, 9004-34-6, 11138-66-2     | 7732-18-5, 56-81-5, 9004-34-6, 1117-86-8, 11138-66-2     |
| APPEARANCE               | White to off-white powder     | Opaque gel                                      | Opaque gel   |
| RECOMMENDED pH OF USE    | 4.0 ▶ 12.0                    | 4.0 ▶ 12.0                                      | 4.0 ▶ 12.0   |
| RECOMMENDED USE LEVEL    | 0.2 ▶ 4.0%                    | 3.0 ▶ 20.0%                                     | 3.0 ▶ 20.0%  |
| NATURAL ORIGIN INDEX     | <b>1 (ISO 16128)</b>          | <b>1 (ISO 16128)</b>                            | <b>1 (ISO 16128)</b>                                     |
| PALM-OIL FREE            | ✓                             | ✓   | ✗ (RSPO, mass balance)                                   |
| LISTED PRESERVATIVE-FREE | ✓                             | ✓   | ✓  |

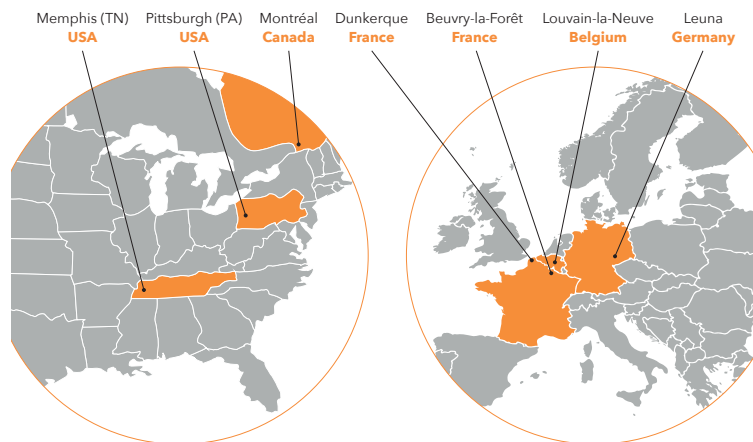
The given information is accurate to the best of our knowledge. Buyers are advised to make their own studies on the usefulness of any product for a particular application or purpose. Recommended usage information is only provided as indication, and should not be considered as recommendations to use the products in violation of any patents, intellectual property rights, laws, or regulations relating, but not limited to, manufacture, composition, product design or end usage.

## MINASOLVE® is an affiliate of MINAFIN® Group

Created in 2004, The Minafin® Group is an expert in Health Chemistry, Green Chemistry and Challenging Chemistry. Activities include industrial subcontracting, development of chemical syntheses and industrial scale-up of custom-made processes as well as proprietary products with high added value for the pharmaceutical, cosmetics, agriculture and high-tech industries. Strong synergies exist between all business units: MINASOLVE, MINAKEM, PENNAKEM, PRESSURE CHEMICAL and MINASCENT.

**Serving market leaders as well as emerging players** we support our customers' efforts to improve the quality of life in the global community by:

- ▶ Improving our chemistry and operational excellence today
- ▶ Creating and innovating for tomorrow
- ▶ Driving our enterprises together to **go beyond expectations**



**300**  
M€ SALES



**1050**  
EMPLOYEES



**150**  
SCIENTISTS



**7**  
PRODUCTION SITES

**MINAFIN®**  
GROUP

2024.03. V2.1

SKIN CARE

# SENSOFEEL MFC IN SKIN CARE APPLICATION

CREATING ATTRACTIVE COSMETICS  
IN A NATURAL WAY

RICHER TEXTURE, ENHANCED BRILLIANCE  
& QUICKER ABSORPTION

✓ LOOK

✓ TOUCH

✓ FEEL



COSMOS  
APPROVED



NATRE  
APPROVED



**MINASOLVE®**  
BIO-INGREDIENTS FOR YOUR APPLICATIONS

green  
solving  
attitude.

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**Sensofeel MFC range, from Minasolve**  
**100% BIOBASED, CREATING ATTRACTIVE**  
**NATURAL COSMETICS WITH EXCELLENT**  
**LOOK, TOUCH AND FEEL.**

Minasolve, in partnership with the Swiss cellulose specialist Weidmann, introduces the new **Sensofeel MFC** product line based on Microfibrillated Cellulose (MFC, Figure 1).

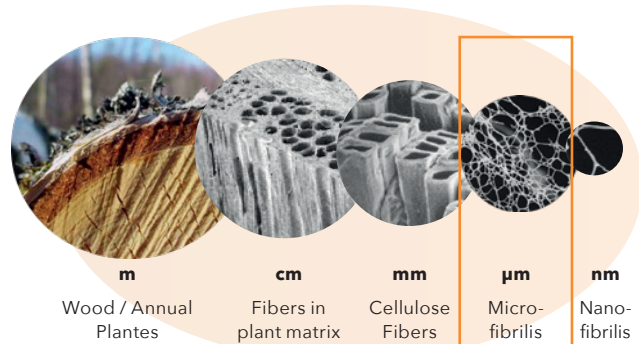


Figure 1

The **Sensofeel MFC** ingredients contain a dense, three-dimensional network of entangled natural cellulose fibers (microfibrillated cellulose). The cavities within the 3D fiber network are similar in size to oil droplets or pigment particles and therefore hold them in place. The formation of pigment agglomerates is also effectively prevented.

All **Sensofeel MFC** products **naturally enhance** the **sensory properties** of a wide range of personal care formulations.

**A-Sensofeel MFC** is a free-flowing powder that can be used in both water-free and water-based formulations, offering maximum flexibility to formulators.

**E-Sensofeel MFC 5 & 8** are hydrogels stabilised with **sustainable** and **biobased additives**. Both versions have long shelf-life and are **easy to incorporate** into cosmetic formulations.

The **Sensofeel MFC** range is COSMOS and NATRUE approved and manufactured entirely in Europe. The pulp used as raw material for the **Sensofeel MFC** range comes from locally-sourced, sustainably-managed forests in Europe. It is environmentally friendly, readily biodegradable, and produced via a purely mechanical process without the use of chemicals or enzymes.

**"Skincare is all about the senses"**

**Sensofeel MFC range** improves **LOOK, TOUCH** and **FEEL** turning a standard formulation into something **exciting**.



**Sensofeel MFC range in standard O/W emulsion**

Five O/W emulsions were tested by a panel of eight trained experts. Four of the creams contained **Sensofeel MFC** ingredients that were introduced during the emulsification step (Table 1). Each emulsion containing **Sensofeel MFC** was compared to a placebo cream without **Sensofeel MFC** (Figure 2).

The three-dimensional fiber network created by **Sensofeel MFC** **strengthens** the **internal structure** of the formulation and provides a **richer texture**. The **optical brilliance** of the four creams was **increased**, **absorption** on the skin was **faster** and **greasiness** was **slightly reduced**.

**Sensory Profile**

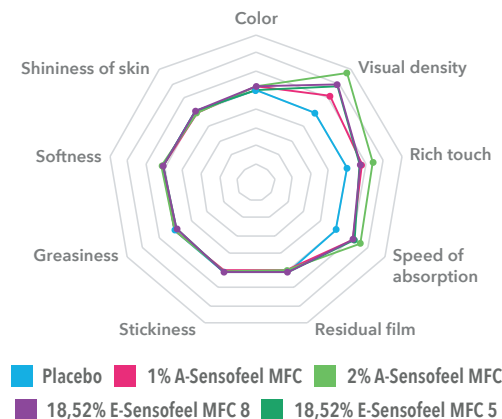


Figure 2

*1% A-Sensofeel MFC is equivalent to 18.5% of E-Sensofeel MFC 5 or 8.*

**Immediate Soft Focus Effect**

20 female volunteers applied an O/W cream containing 1% **A-Sensofeel MFC** to one side of the face and a placebo cream to the opposite control side.

The **depth of wrinkles in the crow's feet area was assessed quantitatively** by using PrimosCR SF, a non-contact in vivo skin measurement device based on structured light projection.

Assessments were made at baseline (T0), and immediately after product application (Timm = approximately 10 minutes after product application).

The study was combined with a **self-assessment questionnaire** that was completed by the volunteers at the end of the study.

**End results :**

- ▶ **Immediate effect** after one single application of a cream containing **1% A-Sensofeel MFC**
- ▶ **Decrease in crow's feet depth by -15.7%**, statistically significant vs. T0 Consumers found the cream with 1% **A-Sensofeel MFC more appealing**
- ▶ **90% of the panelists would buy the product** with 1% **A-Sensofeel MFC** (vs. 65% for the placebo)

**Applications**

**Sensofeel MFC** range is **stable and efficient** even under extreme conditions.

**Sensofeel MFC** is generally suitable for **O/W emulsions** (not recommended for W/O emulsions). There are several ways to add **Sensofeel MFC** to O/W emulsions:

- ▶ Preferably **Sensofeel MFC** should be added **at the end** of the emulsification step. For efficient activation of the powder form **A-Sensofeel MFC**, a **high shear mixer** is required (mixing time is at least 5 minutes at 7500-15000 rpm on a laboratory scale).
- ▶ Alternatively, **A-Sensofeel MFC** can be dispersed in a **portion of the water phase**. After activation by high shear mixing for 5 minutes, the remaining amount of water is added.
- ▶ **E-Sensofeel MFC 5/8** can be dispersed in the water phase with a **normal stirrer**. A high shear activation step is not mandatory.