# *Hydromanil*

Innovative moisturizer, which captures and retains water and assimilates it into the skin in an immediate and natural way

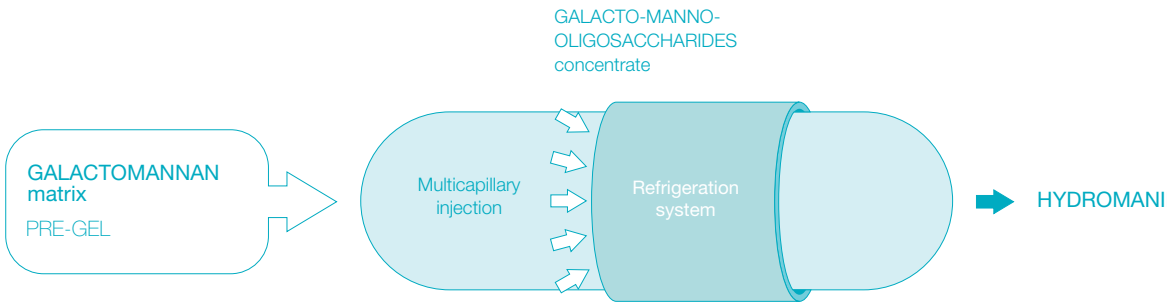
*Moisturizing*

**Exclusive N.A. Distributor**
**CENTERCHEM, INC. NORWALK, CT**
**Ph: 203-822-9800 Fax: 203-822-9820**
**www.centerchem.com**

*Hydromanil*

## Innovative natural moisturizer (TARA: Caelaspina spinosa), which captures and retains water and assimilates it into the skin, immediately and long lastingly, due to a technologically advanced multicapillary injection process.

- Moisturizing galactomannan molecules extracted from the seed endosperm of Caesalpinia spinosa (Tara tree).
- Technologically innovative process consisting in producing a three-dimensional hydrocolloid matrix (Hydromanil) by means of multicapillary injection.
- The sequential release of galacto-manno-oligosaccharides into the stratum corneum provides combined moisturizing action.




*Features and benefits*

## 2 in 1 moisturizing action Combined double action

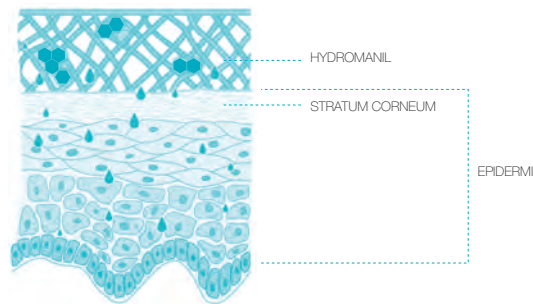
Continued application of the Hydromanil three-dimensional matrix on the skin, allows for sequential release of moisturizing active compounds into the stratum corneum, leading to accumulation of these compounds in the epidermis.

Because of their molecular size, the galactomannan molecules in the colloidal matrix remain on the surface of the stratum corneum, thus preventing transepidermal water loss and generating immediate filmogenic moisturizing effects that provide the skin with a more homogeneous appearance.

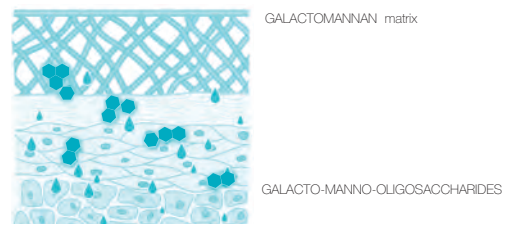
A number of hydrogen bonds are established between galactomannan, galacto-manno-oligosaccharide molecules and water molecules. In this way, all of the water on the skin surface is captured.

The water in the central layers, retained by the continued action of Hydromanil, contributes cohesion and flexibility to the stratum corneum, thus enhancing the skin appearance and texture.

1. Surface action:
Immediate moisturization




2. Internal action:
Sequential release of oligosaccharides

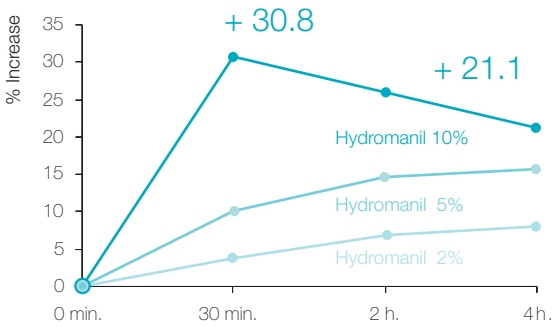


*In Vivo*

## 1. Immediate moisturizing action

Comparison of the action of gels containing 2%, 5% and 10% Hydromanil on the forearm; corneometry measurements.

+ 31% immediate moisturizer action after 30 min
+ 21% immediate moisturizer action after 4 hours




## 2. Long lasting moisturizing

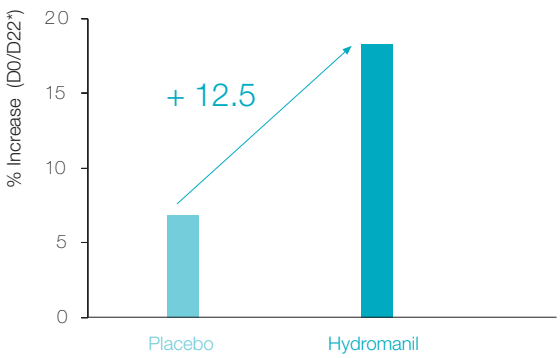
A gel containing 10% Hydromanil was applied on the forearm, twice daily, for 21 days. The moisturizer action degree was measured by corneometry.

+12.5% long lasting moisturizer action after 3 weeks
- 60% desquamation after 3 weeks

### Sensory evaluation

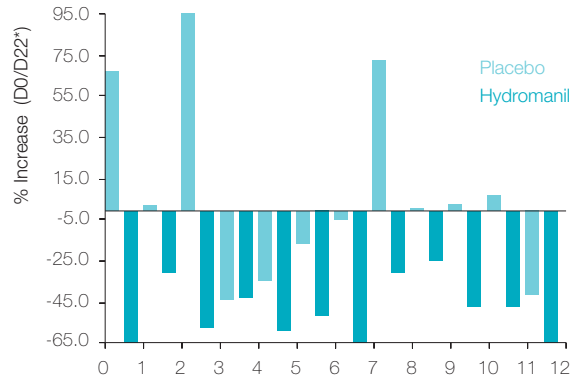
- 83% of the volunteers reported finer and smoother skin
- 67% of the volunteers noticed better moisturized skin
- Excellent acceptance of the formulation because of its pleasant texture and touch

● Long lasting moisturizer action




* 1 day after final application

● Regulation of skin desquamation




* 1 day after final application

*Cosmetic applications*

## Novel active compound with multiple cosmetic applications:

- Basic moisturization for body, facial and hair care: bath gel, body milk, hands cream, shampoo, hair conditioner and lotion.
- Intensive specific treatment for dry damaged and aged skin.
- Enhances the skin appearance; provides smoothness and flexibility.

*Toxicological information*

This product has been evaluated according to the available toxicological information, based on safety assays and bibliographical data. These data allow the conclusion that using this ingredient, under the normal conditions for the use of cosmetics and at the recommended concentrations, is free of risks.

## Technical specifications

• *Hydromanil 75550*

| | |
|---|---|
| PROPERTIES | Natural moisturizer |
| ACTIVE MOLECULES | Galactomannan and galacto-mannose oligosaccharides (5-7%) |
| APPEARANCE | Viscous liquid<br>Yellow |
| SOLUBILITY | Hydroalcoholic and aqueous solutions |
| RECOMMENDED DOSE | 2%-10% |

## Formulation

• *Long lasting moisturizer- daily use facial cream*

| | INCI / PCPC | % (w/w) |
|---|---|---|
| A | PEG100 Stearate, Glyceryl Stearate | 5.50 |
| | Paraffinum Liquidum (Mineral Oil) | 5.00 |
| | Caprylic/Capric Triglyceride | 2.00 |
| | Preservative | 0.70 |
| | Cetearyl Alcohol | 2.50 |
| | Dimethicone | 0.50 |
| | **Sweet Almond Oil** | 5.00 |
| | BHT | 0.10 |
| B | Aqua (Water) | 60.50 |
| | Xanthan Gum | 0.40 |
| | Disodium EDTA | 0.10 |
| | Allantoin | 0.10 |
| | Acrylates C10-30 Alkyl Acrylate Crosspolymer | 0.20 |
| C | Cyclopentasiloxane, Cyclohexasiloxane | 1.50 |
| | Tocopheryl Acetate | 0.20 |
| | Retinyl Palmitate | 0.05 |
| | **Vitamin F – Gliceric Ester** | 1.50 |
| | Parfum (Fragrance) | 0.35 |
| D | Preservative | 0.20 |
| | Aqua (Water) | 3.00 |
| | **HYDROMANIL** | **10.00** |
| E | Aqua (Water) | q.s. 100 |
| | Triethanolamine | q.s. to pH: 5.5 |