Without enough moisture, skin loses its elasticity and resilience resulting in wrinkles, sagging and a dull complexion. For soft, radiant, youthful skin, moisturizers (especially those containing anti-oxidants and sun protection) should be applied on a regular basis. Not only will a moisturizer reduce dryness, it will alleviate irritation and improve skin health by helping to maintain protective barrier properties and sustain normal cell function.

Introducing DC HydroTrap, a new water binding technology for skin care, concentrated with hydrophilic, lipophilic and amphoteric molecules from specific plant fractions for optimal moisturization and hydration:
- Algae polysaccharides to soothe and moisturize; provide surface cushion layers to protect against water loss
- Soy phospholipids to improve elasticity and restore lipid barrier function
- Beet extract rich in water binding osmolytes and naturally occurring betaines to bind water and provide for excellent humectancy

The result of this cocktail is a highly humectant hybrid gel which provides a comprehensive, long-lasting cascade of moisture, keeping skin hydrated for hours.

**BENEFITS**
- Hydrating/Moisturizing
- Long lasting
- Smooth feeling
- Film forming
- Protective
- Ultra-gentle

**APPLICATIONS**
- Skin and hair conditioners
- Baby care
- Moisturizers
- Daily protection
- Sun care
- Sensitive skin

**TYPICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Yellow to brown gel</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>pH</td>
<td>3.0-5.0 (25% aqueous solution)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.990 – 1.200</td>
</tr>
</tbody>
</table>

**FORMULATION GUIDELINES**

Recommended Use Level

5.0-10.0%

Disperses easily in carbomer and other gels, emulsions or any composition with an external water phase.
**DC HydroTrap**
INCI: Glycerin (and) Water (and) Glycine Soja (Soybean) Germ Extract (and) Beta Vulgaris (Beet) Root Extract (and)
Chondrus Crispus Extract

**WATER BINDING CASCADE TECHNOLOGY**

Electronegative oxygen of water creates dipoles resulting in a highly favorable attraction to DC HydroTrap.
Excellent for long-lasting skin hydration.

Chondrus Crispus Extract

Surface cushioning hydration layer forms
- Water hydrogen binding to large polysaccharides

Soy Phospholipids

Interaction with epidermis restores lipid barrier
- Phospholipids entrap water in water-lipid bilayers

Beet Extract

Deep, long lasting hydration
- Dipole-ionic forces attract water to a small natural amphoteric carrier

**SURFACE MOISTURIZATION STUDY (Novameter)**

![Graph showing surface moisture retention over time for untreated, carboxomer, and 7% HydroTrap in carboxomer samples.]

In vivo screening has demonstrated DC HydroTrap has good performance in both surface hydration and barrier moisturizing protection.

**MOISTURIZATION STUDY (Transepidermal Water Loss)**

![Graph showing transepidermal water loss over time for untreated, carboxomer, and 7% HydroTrap in carboxomer samples.]

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DC HydroTrap
INCI: Glycerin (and) Water (and) Glycine Soja (Soybean) Germ Extract (and) Beta Vulgaris (Beet) Root Extract (and)
Chondrus Crispus Extract

HYDROTRAP LOTION
Formula RON3-157/3

<table>
<thead>
<tr>
<th>PHASE</th>
<th>INGREDIENT</th>
<th>% BY WEIGHT</th>
<th>SUPPLIER</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Water</td>
<td>q.s.</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Disodium EDTA</td>
<td>0.15</td>
<td>Finetex</td>
</tr>
<tr>
<td>B</td>
<td>Finsolv TN</td>
<td>5.00</td>
<td>Finetex</td>
</tr>
<tr>
<td>B</td>
<td>Lexol GT-865</td>
<td>7.50</td>
<td>Inolex</td>
</tr>
<tr>
<td>B</td>
<td>Dow Corning 200 Fluid, 350 cst</td>
<td>2.00</td>
<td>Dow Corning</td>
</tr>
<tr>
<td>B</td>
<td>Pemulin TR-2</td>
<td>0.40</td>
<td>Noveon</td>
</tr>
<tr>
<td>C</td>
<td>Water</td>
<td>10.00</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>TEA, 99%</td>
<td>0.40</td>
<td>Resources of Nature</td>
</tr>
<tr>
<td>D</td>
<td>DC HydroTrap</td>
<td>10.00</td>
<td>Resources of Nature</td>
</tr>
<tr>
<td>E</td>
<td>Gransil SiW 026</td>
<td>3.00</td>
<td>Resources of Nature</td>
</tr>
<tr>
<td>F</td>
<td>Seppigel 305</td>
<td>0.50</td>
<td>Seppic</td>
</tr>
<tr>
<td>G</td>
<td>Surcide DMDMH</td>
<td>0.50</td>
<td>Surety</td>
</tr>
</tbody>
</table>

|                | 100.00     | Resources of Nature |

Procedures:
Combine Phase B in a separate vessel and mix until uniformly dispersed. Add Water and EDTA into the main beaker and mix until dissolved. Combine Phase B into A with prop mixing for ~25 minutes until uniform. Premix Phase C and add to the main vessel to adjust the pH to ~5.50. Add Phase D to the main vessel and continue to mix for ~10 minutes until uniform. Add Phase E to the main vessel and continue to mix for ~10 minutes until uniform. Add Phase F to the main vessel and continue to mix for ~10 minutes until uniform. Add Phase G to the main vessel and continue to mix for ~10 minutes until uniform. Finishing Step (If Desired): Homogenize for ~ 10 minutes.