Physical Properties
A group of naturally occurring polyphenols found in oats
- Fully soluble in aqueous, oil/water and water/oil systems
- Yellow to amber colour
- Low odour

Activity and Benefits
Possesses superior anti-irritant and antioxidant properties
Anti-irritant active component has been identified as Avenanthramides
Avenanthramides are analogues of Tranilast™, which is a potent anti-histamine
Avenanthramides can significantly suppress histamine as low as 0.5ppm
Effectively reduces redness (erythema) at as low as 0.45ppm
Possesses powerful non-steroidal anti-inflammatory to relieve itching and reduce inflammation
Standardised on its active principle of 100ppm Avenanthramides

Product Suitability
Exhibits highly effective anti-irritant properties at usage levels as low as 0.5%
Suitable for all water based cosmetic product applications and shown to suppress skin and hair lipid peroxidation
Effectively protects DNA damage from UV exposure

Solubility
Suitable for all water-based product forms (aqueous, aqueous/alcohol, emulsions, etc.)

Technical Specification
- Colour: Yellow to Amber
- Avenanthramides AF-1, AF-2, AF-6: 100 to 120 ppm
- Protein: ≤2.0%
- pH @ 25°C: 2 to 8
- Turbidity @ 25°C (NTU): <20
- Preservative: 0.2% (w/w) Potassium sorbate

Microbiological Properties
- Total Aerobic Microbial Count: <100 cfu/mL
- Total combined yeast and mould count: <100 cfu/mL
- Escherichia coli: Not detected
- Pseudomonas aeruginosa: Not detected
- Salmonella spp: Not detected

Cross-section of an oat kernel showing avenanthramides auto-fluorescing under UV light
Facial Skin Care
- Moisturisers
- Sensitive Skin Care
- Exfoliators, Cleansers & Masks
- Treatments, Lip & Eye Care
- Men’s Care

Body Care
- Body Lotion/Cream
- Water Based Gels
- Hand & Foot Care
- Massage & Body Oils
- Talcs & Dusting Powders

Hair Care
- Shampoos
- Conditioners
- Treatments
- Scalp Care
- Styling

Sun Care
- Lotions & Creams
- Oils
- Mousses/ Water Based Sprays
- After Sun

Decorative Cosmetics
- Foundations
- Pressed Powders
- Mascara
- Lipstick & Glosses
- Liquids/Gels

Personal Care & Hygiene
- Anti-perspirants & Deodorants
- Bath & Shower Liquids
- Shaving & Depilatory
- Oral Care
- Baby

### Formulation Suggestion

**Natural Cereal and Honey Scalp Soothing and Anti-Hair Loss Treatment**

This milky lotion is designed to be applied all over the scalp area with a fine applicator nozzle. The product should then be massaged into the scalp and preferably left in over night before shampooing out. It can be used during the day to control men’s hair, where it will add shine and some light styling properties.

CP Oat Avenanthramides provides the skin soothing properties, making the product particularly good for dry, itchy or inflamed scalps. It should also help to reduce redness, where for instance the scalp has been exposed to excessive sunlight. It could, thus, be useful for soothing sunburnt male bald patches!

Natural hair growth, moisturising and elasticity promoting active ingredients make this formulation particularly multifunctional.

<table>
<thead>
<tr>
<th>Common / Trade Name</th>
<th>INCI Name</th>
<th>% w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symbiomuls GC</td>
<td>Glyceryl Stearate Citrate; Cetearyl Alcohol; Glyceryl Caprylate</td>
<td>4.00</td>
</tr>
<tr>
<td>Jojoba Oil, Colourless</td>
<td>Simmondsia Chinensis (Jojoba) Seed Oil</td>
<td>3.00</td>
</tr>
<tr>
<td>Myritol 318</td>
<td>Caprylic/Capric Triglyceride</td>
<td>7.00</td>
</tr>
<tr>
<td>Cetiol OE</td>
<td>Dicaprylyl Ether</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purified Water</td>
<td>Aqua / Water</td>
<td>To 100</td>
</tr>
<tr>
<td>Amisoft HS 11P(F)</td>
<td>Sodium Stearoyl Glutamate</td>
<td>0.30</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bioextender SPE</td>
<td>Hydrolyzed Rhodophycea Extract</td>
<td>5.00</td>
</tr>
<tr>
<td>Oat Avenanthramides</td>
<td>Glycerin, Aqua/Water, Oat (Avena sativa) Extract</td>
<td>2.00</td>
</tr>
<tr>
<td>Melhydran LS 4420</td>
<td>Mel / Honey Extract</td>
<td>3.00</td>
</tr>
<tr>
<td>Capauxein</td>
<td>Water (and) Glycerine (and) Hydrolysed Corn Protein</td>
<td>0.75</td>
</tr>
<tr>
<td>Preservative</td>
<td>qs</td>
<td></td>
</tr>
<tr>
<td>Essential Oil Blend</td>
<td>qs</td>
<td></td>
</tr>
</tbody>
</table>

**Method of Manufacture**

Heat phases A and B separately to 75 to 80°C. Add phase B to A and homogenise with a high shear mixer for 1 to 2 minutes. Transfer the lotion to a paddle stirrer and continue mixing until the temperature falls below 35°C when phase C should be added. Mix well and fill into suitable containers.

**Recommended Usage**

Recommended usage: 1 to 5%

Formulating pH range: 5 to 8

Formulating temperature range: 25 to 50°C

**Pack Sizes**

1, 5 and 20 kg

**Certification Status**

ECOCERT NATURAL Registration (2175).

CP Oat Avenanthramides is a natural product free from genetically modified organisms. Allergen free and not tested on animals.

**Storage & Handling**

No special measures necessary if used correctly. Wear safety glasses, use safety goggles where a mist may be generated. Store at room temperature only. Any unused portion should be kept sealed in the original container to avoid any contamination. Mix well before use.

**Shelf Life**

Our product shelf life is approximately 2 years from the date of manufacture, stored in the original unopened containers.