

CP Oat Avenanthramide Extract

ECOCERT Natural Registration (2262)

- **Manufacturer:** Ceapro Inc, Canada
- **Product #** 902-3043
- **INCI Name:** Glycerin, Aqua, Avena Sativa (Oat) Extract
- **Product Composition**

Ingredient	CAS	EINECS
Glycerine	56-81-5	200-289-5
Potassium sorbate	590-001	203-768-7
Oat (Avena sativa) extract	84012-26-0	281-672-4

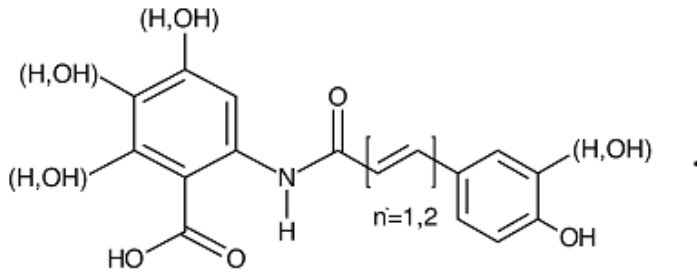


Oats (*Avena sativa*) are a cereal grass and cultivated world-wide. For centuries they have been used not only as an excellent food source, but for their soothing and healing qualities. Clinical studies have proven that oats heal dry and itchy skin, reducing inflammation and alleviating redness.

Avenanthramides are unique as they are only found in oat grains and silkworm eggs. Powerful natural anti-oxidant and anti-irritant properties make them ideal for skin, hair, baby, and sun care products, plus toiletries and cosmetics. What's more, they are particularly effective as an active ingredient in sensitive skin and scalp products.

Colloidal oatmeal has been used for centuries for soothing the skin. In 2003, colloidal oatmeal was recognised as a skin protectant for the relief of a variety of dermatoses by the FDA (June, 2003). Ceapro scientists were the first to discover the link between the traditional use of colloidal oatmeal for alleviating red, itchy and inflamed skin and naturally occurring avenanthramides in oats. In both UV and chemical induced erythema models involving 25 patients, concentrations in a final formulation of as little as 0.5% provided significantly proven clinical relief.

Physical Properties



A group of naturally occurring polyphenols found in oats. CEAPRO scientists were the first to identify the link between the traditional symptomatic relief from oatmeal and the clinical activity of avenanthramides.

- Fully soluble in aqueous, oil/water, water/oil systems
- Yellow –amber colour
- Low odour

Activity & Benefits

- Superior anti-irritant and antioxidant properties
- The anti-irritant active component has been identified as Avenanthramides
- Analogues of Tranilast & Trade, which is a potent anti-histamine
- Avenanthramides can significantly suppress histamine as low as 0.5ppm
- Standardized on its active principle of 100ppm Avenanthramides

Product Suitability

- Exhibits high effective anti-irritant properties (*in vivo*) at usage levels as low as 0.5%
- Suitable for all water based cosmetic product based applications
- Shown to suppress skin and hair lipid peroxidation
- Effectively protects DNA from UV (sun) exposure
- Effectively reduces redness (erythema) as low as 0.45ppm
- Possesses powerful non steroidal anti-inflammatory activity to relieve itching and reduce inflammation

Key Product Applicability

- Hair care products (shampoos & conditioners) 3–8%
- Baby care products
- Sun care products (Sun products & after sun) 2–10%
- Creams and lotions 1–5%
- Antiperspirants 1%
- Liquid foundations 2–5%



Technical Specification

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

Product formulated in glycerol and water (1:1 w/w)

Microbiological Properties

Yeast / Mould	
Total Aerobic Microbial Count	<100 cfu/mL
Total combined yeast and mould count	<100 cfumL
Escherichia coli	Not detected
Pseudomonas Aeriginosa	Not detected
Salmanela spp	Not detected

Solubility

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

Recommended Usage

- **Recommended usage:** 1 to 5%
- **Formulating pH range:** 5 to 8
- **Formulating temperature range:** 25 to 50°C

Maximum Usage

No known restrictions

Suggested Formulations

- **Moisturising High SPF Sunscreen Lotion with Ceapro Oat Avenanthramide Extract**
- **Natural Cereal & Honey Scalp Soothing, Anti-Hair Loss Treatment with Ceapro Oat Avenanthramide Extract**
- **Soothing Antiperspirant Deodorant Roll-On with Ceapro Oat Avenanthramide Extract**



Certification Status

- Natural product free from Genetically Modified Organisms
- Allergen free
- Not tested on animals
- ECOCERT Natural Registration

Pack Sizes Available

5 and 20kg

Handling Procedures

- Store at room temperature in a cool and dry place, avoid light and heat.
- Ceapro Oat Avenanthramides Extract is designated as non hazardous material.
- Keep containers closed when not in use.

Shelf Life

Use within 12 months.



Moisturising High SPF Sunscreen Lotion with Ceapro Oat Avenanthramide Extract

Suggested Formulation Using CP Oat Avenanthramide Extract

This high protection sunscreen lotion spreads easily and leaves a soft, non-greasy, water-resistant film on the skin. The formulation contains a mixture of sunscreen agents that are active in both the UVB and the more ageing UVA region. The Ceapro Oat Avenanthramide Extract helps to reduce any redness and irritation and potentially deal with any skin discomfort that being in the sun may cause.

Phase	Tradename	INCI Name	% w/w	
A	Parsol 1789	Butyl Methoxydibenzoyl-methane	3.00	
	Parsol SLX	Polysilicone-15	3.00	
	Parsol 340	Octocrylene	3.60	
	Amphisol K	Potassium Cetyl Phosphate	3.00	
	Ceraphyl 368	Ethyl Hexyl Palmitate	5.00	
	Lanette O	Cetearyl Alcohol	2.50	
	Ceraphyl SLK	Isodecyl Neopentanoate	1.00	
	Antaron (Ganex) V- 220F	VP/Eicosine Copolymer	2.00	
	Copherol F 1300 G	Tocopherol	0.50	
	Sensolene	Ethylhexyl Oliviate	5.00	
	Ceraphyl 230	Diisopropyl adipate	7.00	
	Myritol 318	Caprylic/Capric Triglyceride	5.00	
	B	Tetrasodium EDTA	Tetrasodium EDTA	0.20
		Glycerine	Glycerine	4.00
Keltrol CG-RD		Xanthan Gum	0.30	
	Water	Aqua	To 100	
C	Triethanolamine	Triethanolamine	0.12	
D	Parsol HS	Phenylbenzimidazole Sulfonic Acid	4.00	
	Triethanolamine	Triethanolamine	3.00	
	Water	Aqua	10.00	
E	Ceapro Oat Avenanthramide Extract	Glycerine, Aqua/Water. Oat (Avena sativa) extract	2.00	
	Optiphen Plus (or other suitable preservative)	Phenoxyethanol (and) Caprylyl Glycol (and) Sorbic Acid	1.50	
	Citric Acid 25%	Citric Acid	qs	



Method of Manufacture:

1. Disperse the Keltrrol in the water of phase B. Add the remaining ingredients of phase B and heat to 80°C.
2. Heat phase A to 85°C under stirring.
3. Add phase B to A with homogenisation.
4. Add phase C when the temperature drops below 55°C to adjust the pH to 7.0 (this level may need slight adjustment).
5. Mix phase D, ensuring the pH is 7.0 and that the solution is clear. Add to the emulsion and homogenise once more. Cool to room temperature with stirring.
6. Add phase E (only use citric acid if the pH needs adjusting to 7.0).

N.B Phase A does not look homogeneous but this material disperses on mixing with the water phase and homogenising the emulsion.



Natural Cereal & Honey Scalp Soothing, Anti-Hair Loss Treatment with Ceapro Oat Avenanthramide Extract

Suggested Formulation Using CP Oat Avenanthramide Extract

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.

Ceapro Oat Avenanthramide Extract 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!

The additional of natural hair growth, moisturising and elasticity promoting active ingredients make this formulation particularly multi-functional.

Phase	Tradename	INCI Name	% w/w
A	Symbiomuls GC	Glyceryl Stearate Citrate, Cetearyl Alcohol, Glyceryl Caprylate	4.00
A	Jojoba Oil, Colourless	Simmondsia Chinensis (Jojoba) Seed Oil	3.00
A	Myritol 318	Caprylic/Capric Triglyceride	7.00
A	Cetiol OE	Dicaprylyl Ether	3.00
B	Purified water	Aqua/water	To 100.00
C	Bioextender SPE	Hydrolyzed Rhodophyceae Extract	5.00
C	Ceapro Oat Avenanthramide Extract	Glycerine, Aqua/Water, Oat (Avena sativa) Extract	2.00
C	Melhydran LS 4420	Mel / Honey Extract	3.00
C	Capauxein	Water (and) Glycerine (and) Hydrolysed Corn Protein	0.75
C	Preservative		qs
C	Essential Oil Blend		qs

Method of Manufacture

- Heat phases A and B separately to 75 – 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



Soothing Antiperspirant Deodorant Roll-On with Ceapro Oat Avenanthramide Extract

Suggested Formulation Using CP Oat Avenanthramide Extract

This aqueous alcoholic clear roll-on antiperspirant includes the Oat Avenanthramide Extract, as a highly effective soothing and anti-irritant additive. Inclusion of this material should help support claims such as soothing or caring for the underarm skin.

Phase	Tradename	INCI Name	% w/w
A	Natrosol 250HH-GF	Hydroxyethyl Cellulose	0.30
	Ethanol, denatured	Alcohol, Denat	25.00
B	Water, Purified	Aqua	To 100
C	Reach 301L	Aluminum Sesquichlorohydrate	40.00
D	Zemea	Propanediol	3.00
	Ceapro Oat Avenanthramide Extract	Aqua, Glycerine, Oat (Avena sativa) Kernel extract	0.50
E	Fragrance	Parfum	qs
	Cremaphor RH40 (or equivalent)	PEG-40 Hydrogenated Castor Oil	qs

Method of Manufacture:

1. Disperse the Natrosol in the alcohol of phase A, whilst stirring.
2. Heat the water of phase B to 65 - 70°C and add to phase A to fully hydrate the Natrosol with stirring.
3. Add phase C, followed by D with mixing.
4. Pre-mix the fragrance (if using) with the Creamphor and a suitable ratio (1:3 - 1:5 is likely) and mix well into the base. Fill into roll-on containers.

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