

## FACT SHEET

# COLLOIDAL OATMEAL

## PRODUCT OVERVIEW

Colloidal oatmeal (*Avena sativa*) is a bioactive ingredient composed of polysaccharides, proteins, lipids, and phenolic compounds that provide antioxidant, anti-inflammatory, and barrier-enhancing effects. It improves hydration, reduces irritation, and is clinically beneficial in conditions such as dry skin and atopic dermatitis, making it a key component of dermatological and personal care formulations.

## FEATURES & KINETICS

- Lipid-soluble, Membrane-Integrating, and Redox-active
- Barrier Repair & Hydration
- Microbiome Balance
- Barrier Strengthening at the Molecular Level.
- Buffering Agent
- Anti-inflammatory Agent & Anti-oxidant Agent

## APPLICATIONS:

Colloidal oatmeal is applied in moisturizers, cleansers, sunscreens, baby care, eczema treatments, after-sun products, anti-aging lines, and barrier-repair formulations, as its protective, moisturizing, soothing, antioxidant, cleansing, and pH-buffering properties.

## MECHANISM OF ACTION

1. Barrier & Hydration - Restores skin lipids, boosts ceramide synthesis, and retains water via  $\beta$ -glucans.
2. Anti-inflammatory & Anti-pruritic - Avenanthramides suppress  $PLA_2/NF-\kappa B$  signaling and reduce cytokines and itch mediators.
3. Antioxidant & Microbiome Support - Phenols neutralize ROS, while prebiotic and buffering actions balance microbiome and skin pH.

## KEY INGREDIENTS

- Colloidal Oatmeal

## STORAGE CONDITIONS

- Store at 4 °C for short-term use.
- Protect from direct sunlight (use opaque or amber containers).
- Use broad-spectrum preservatives effective against bacteria, yeast, molds.

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