

AKVANO® Antiseptic Emollients

Emollients help the skin functions by reducing water loss from epidermis through a protective layer. For dry or irritated skin and conditions such as eczema, emollients are an essential part of daily skin care. In addition to this, antiseptic emollients reduce the possibility of infection which might worsen skin conditions.

AKVANO® technology formulations are inherently anti-septic without any added antimicrobial substances. The high alcohol content in combination with natural lipid ingredients make the AKVANO solutions unique antiseptic emollients. The alcohol destroys bacteria on the skin surface before evaporating and the dissolved lipids form a protective non-occlusive layer which prevents water loss and restores the skin barrier.

Lipids occur in all living matter as one of the main groups of biomolecules, together with amino acids, carbohydrates and nucleic acids. Lipids serve several purposes in the human

body, including as energy reserves and as structural building blocks (biological membranes). Lipidor is focusing on exploiting the vast capabilities of these natural and endogenous lipids, and how they can be used in skin treatment both by themselves, and as delivery vehicles for active ingredients.

AKVANO® formulations are water-free and provide a direct lipid layer deposition on the skin – in contrast to conventional lipid formulations that form different types of dispersions (ointments, cream etc). Formulations can be delivered as spray, drop, solution, medical wipe or dermal patch and offer non-touch applications.

AKVANO® formulations consist of components well-known in dermatology applications as well as natural and free from preservatives and irritants:

- ✓ Phospholipids are natural materials of vegetable origin; phospholipids soften the skin, strengthens the skin barrier and alleviates irritation.
- ✓ Other lipids such as medium chain monoglycerides (MCM) and isopropyl myristate IPM are used to control the penetration into the skin.
- ✓ Keratolytic agents (optional) e.g. urea, lactic acid or others. These soften the skin, have a water binding ability and can be antiseptic.
- ✓ Alcohol solvent systems, mainly ethanol, are powerful antiseptics.
- ✓ Other solvents or excipients such as silicone oils or denaturing agents and additives such as fragrances and vitamins.

Formulations consist of selected lipids, with or without active ingredients, that are dissolved in a volatile solvent, formulated as a clear cutaneous and sprayable liquid. The solvent quickly evaporates after having been applied to the affected site, leaving a thin, dry lipid layer on the skin surface, for skin care treatment and effective (non-systemic) delivery of active ingredients. The lipid layer immediately interacts with skin lipids and can start to exert their effect.

Licensing opportunities

Lipidor is establishing licensing arrangements with co-development partners and distributors for skin, wound care and disinfection products. Final products including packaging can be licensed, with or without exclusivity for a specific market. Co-development of products is also an option.

Spray product opportunities include

- Spray formulations
- Antimicrobial Foot Spray
- Antiseptic Emollient Spray
- Moisturizing Emollient Spray
- Wound Disinfectant Spray
- Remoisturizing Hand Disinfectant Spray

Other formulations

- Acne treatment (wipe, pen or brush)
- Remoisturizing Hand Disinfectant (wipe)
- Wart treatment (brush)

Lipidor is cooperating with Aurena Labs with regard to manufacturing, filling, quality control, packaging and delivery. Aurena Labs is a leader in Bag-on-Valve spray technology which guarantees product integrity and function (www.aurenalabs.com). Products are simple to formulate and manufacture (including sterile products), and shelf life is normally three years.



AKVANO sprayable formulations offer advantages in key areas:

- ✓ Lipid-based approach enables skin barrier reinforcement
- ✓ Antibacterial and antifungal effect
- ✓ Moisturizing and emollient effect
- ✓ Direct deposition of lipids on the skin
- ✓ Natural ingredients
- ✓ Non-touch functionality
- ✓ Efficient development and manufacturing (incl sterile products)
- ✓ Spraying from any angle
- ✓ The AKVANO technology is protected by granted patents or patent applications