

NEW FORMULATION OF LIDOCAINE WITH RAPID ONSET OF ACTION

Very stable nanoemulsion formulated from an eutectic mixture of lidocaine and unsaturated fatty acids (UFA)

Lidocaine ■ Fatty acid ■ Topical anesthetic or antalgic ■
Premature ejaculation ■ Eutectic mixture

APPLICATIONS

- Topical anesthetic (cream, spray, patch,..) or antalgic formulation free of prilocaine
- Topical cream or gel for premature ejaculation

DEVELOPMENT PHASE

In vitro proof of concept on a human skin explant against EMLA®

INTELLECTUAL PROPERTY

PCT patent application WO2013083910
filed on 2012

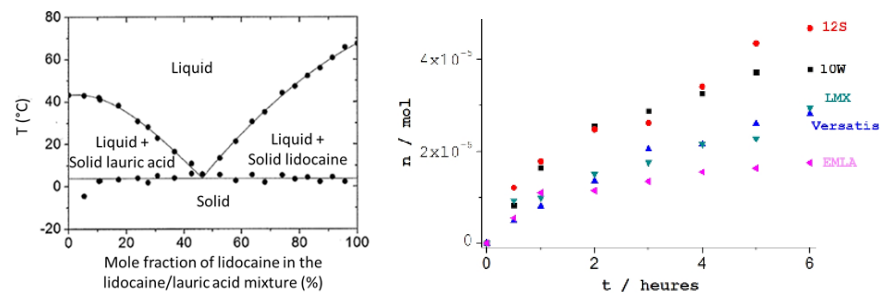
CONTACT

Mail : bd-sante@idfinnov.com
Phone : +33(0)7.61.86.77.56

PRESENTATION

Topical anesthetics, creams or patches, provide a local anesthesia before a superficial operation by penetrating the epidermis to target directly free nerves endings in the dermis. Lidocaine is the most widely used topical anesthetic and most commonly used creams are formulated from an eutectic mixture of lidocaine and prilocaine. However, prilocaine has been associated with increased risk of side effect (methemoglobinemia), especially in pediatry.

The present offer proposes **an optimized anesthetic emulsion free of prilocaine**, formulated from a eutectic mixture of lidocaine and unsaturated fatty acid (UFA). Nanoemulsion and richness in UFA give our product the advantage of a **quick transdermal delivery of drugs**. Furthermore, the formulation at a physiological pH avoids skin irritation observed with available topical anesthetics.



Phase diagram of the new formulation (right) and kinetic diffusion analysis (left) with examples of developed formulation (12S and 10W) versus LMX, Versatis and EMLA

COMPETITIVE ADVANTAGES

- Formulation free of prilocaine
- Potential for long duration and fast onset of action compared to LMX and EMLA
- Expected to reduce skin irritation
- Compounds of proven safety
- Nanoemulsion stable between 6° and 35°
- Auto-emulsifiable system facilitating the production process
- pH neutral (EMLA basic)
- Several formulations possible : gel, spray, cream, patch, etc