Percutaneous Absorption

In vitro Release Test and Transdermal Permeation of topical formulations by Franz diffusion cells
IN VITRO RELEASE TEST

— Optimization and comparison of different formulations during formulation development phase.

— Development and validation of release rate methods for topical formulations.

— Quality control for in vitro release of manufacturing batches

In vitro method development in compliance with SUPAC-SS and FDA requirements. (Guidance for Industry: SUPAC_SS: Nonsterile Semisolid Dosage Forms. FDA, 1997)

IN VITRO PERMEATION TEST

— Determination of percutaneous absorption including flux rates and transdermal permeability of the active compounds.

— Penetration studies:
  · Quantification of the API remaining in the skin
  · Penetration in mucous membranes
  · Penetration in cornea

— Applications:
  · Optimization and comparison of formulations
  · Selection of suitable excipients
  · Selection of lead candidate formulations for topical products
  · Assessment of safety of cosmetic actives

Permeation studies are performed in accordance with OECD and EMA guidelines (Guideline for the testing of chemicals. Skin absorption: in vitro method. OECD 428, 2004; Guidance document for the conduct of skin absorption studies. OECD 28, 2004; EMA Guideline on quality of transdermal patches. EMA, 2014)