

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311005700 A

(19) INDIA

(22) Date of filing of Application :28/01/2023

(43) Publication Date : 03/02/2023

(54) Title of the invention : PIPERINE LOADED LIPID NANOCARRIERS FOR MANAGEMENT OF ATOPIC DERMATITIS

(51) International classification :A61K0009510000, A61K0009000000, A61K0031452500, A61K0047140000, A61K0047100000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

1)Prof (Dr) Mahendra Singh Ashawat

Address of Applicant :Director cum Principal Laureate Institute of Pharmacy Off Campus Ph.D Research Center, HPTU, Hamirpur VPO-Kathog, Tehsil-Jwalamukhi, Distt. Kangra, H.P-176031 -----

2)Dr. Pravin Kumar

3)Prof (Dr) Dinesh Kumar

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Prof (Dr) Mahendra Singh Ashawat

Address of Applicant :Director cum Principal Laureate Institute of Pharmacy Off Campus Ph.D Research Center, HPTU, Hamirpur VPO-Kathog, Tehsil-Jwalamukhi, Distt. Kangra, H.P-176031 -----

2)Dr. Pravin Kumar

Address of Applicant :Associate Professor Department of Pharmaceutics Laureate Institute of Pharmacy Off Campus Ph.D Research Center, HPTU, Hamirpur VPO-Kathog, Tehsil-Jwalamukhi, Distt. Kangra, H.P-176031 -----

3)Prof (Dr) Dinesh Kumar

Address of Applicant :Director School of Pharmacy Sanskriti University 28 KMs to Delhi Mathura Highway, Chhata, Mathura, UP -----

(57) Abstract :

The invention discloses piperine loaded lipid nanocarrier for management of atopic dermatitis and method of preparation. The piperine loaded lipid nanocarrier comprises of piperine; phosphatidylcholine; ethanol; an oil base comprising of cetyl alcohol, stearic acid, tween 80 and span 20; and an aqueous base comprising of propylene glycol, glycerine, methylparaben, propylparaben and distilled water. The piperine loaded lipid nanocarrier has high entrapment efficiency. The results of the drug release studies show that the drug release from the piperine loaded lipid nanocarrier was sustained for 24 hours. The results showed that the piperine loaded lipid nanocarrier were found to be optimum for inhibiting atopic dermatitis. The piperine loaded lipid nanocarrier were able to have maximum deposition of drug in skin layers. The high drug permeation of the piperine loaded lipid nanocarrier based cream was confirmed.

No. of Pages : 16 No. of Claims : 7