पेटेंट कार्यालय
शासकीय जर्नल

OFFICIAL JOURNAL
OF
THE PATENT OFFICE

निर्गमन सं. 19/2022	शुक्रवार	दिनांक: 13/05/2022
ISSUE NO. 19/2022	FRIDAY	DATE: 13/05/2022

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/05/2022

(21) Application No.202211026032 A
(43) Publication Date : 13/05/2022

(54) Title of the invention : THEOPHYLLINE LOADED SUSTAINED RELEASE FLOATING MULTI-PARTICULATE ORAL DRUG DELIVERY SYSTEM

(51) International classification :A61K0009160000, A61K0009500000, A61K0009000000, A61K0031650000, A61K0009200000
(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)Dr Prashant Upadhyay
Address of Applicant :Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, India Pin Code: 244102 ---------- ----------
2)Dr Sukirti Upadhyay
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Dr Prashant Upadhyay
Address of Applicant :Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, India Pin Code: 244102 ---------- ----------
2)Dr Sukirti Upadhyay
Address of Applicant :Associate Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 ---------- ----------

(57) Abstract :
Oral sustained release floating multiparticulate drug delivery systems are the novel gastro retentive dosage forms based on approach of low density dosage forms using polymers that remain buoyant above gastric fluid having specific gravity of less than 1.004 g/ml. Theophylline easily absorbed from the gastrointestinal tract (GIT) and having short half life is eliminated quickly from the blood circulation. To avoid this problem, the drug-loaded floating microspheres (FM) are developed by emulsion solvent evaporation methods. FM characterized by micromeritic properties i.e. particle size, tapped density, compressibility index, true density, and flow property. Studies of percentage yield, drug entrapment, buoyancy, in vitro dissolution in 0.1N HCl were perfomed. The optimized batch was fitted in Huguchi and Koresmeyer peppas model. Morphology by SEM, Drug carrier interaction by FTIR and drug crystalline nature by XRD patterns was confirmed for Optimized A5 batch of FM. Accelerated stability studies was performed to know shelf life and stability studies was done at 45 oC 0.5 at 75% R.H for 90 days to know drug degradation rate. Capsule dosage forms filled with A5 batch FM were evaluated for physical texture, dissolution and stability studies.

No. of Pages : 14 No. of Claims : 7