Formulasi dan uji stabilitas krim etosom anti jerawat berdasarkan terbentuknya asam miristat dan asam stearat sebagai hasil urai = Formulation and stability test in anti-acne ethosomal cream based on the formation of myristic acid and stearic acid as a result of degradation product

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Abstrak

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Kestabilan sediaan harus diperhatikan dalam memformulasikan sediaan farmasi, yaitu berada dalam batas penerimaan selama masa periode penyimpanan dan penggunaan, sifat dan karakterisasinya tetap sama seperti saat dibuat. Pada penelitian diformulasikan sediaan krim etosom KE dan non etosom KNE asam azelat, dilakukan evaluasi sediaan krim, uji stabilitas fisik, dan uji stabilitas kimia terbentuknya asam stearat dan asam miristat sebagai hasil urai basis krim. Hasil uji stabilitas fisik, pengujian organoleptis KE selama 8 minggu penyimpanan suhu rendah, ruang, dan tinggi terjadi pemisahan etosom dengan basis, bau tengik, dan sineresis. Pengujian cycling test dan uji mekanik KE terjadi pemisahan etosom dari basis. Pada uji stabilitas kimia, persentase kadar isopropil miristat IPM tersisa pada KE setiap dua minggu pengujian, dihitung dari minggu ke-0 sebesar 99.16, 95.65, 92.86, 91.95, dan 71.68. Persentase kadar IPM tersisa pada KNE sebesar 99.08, 89.69, 88.56, 87.83, dan 40.53. Persentase kadar gliserol monostearat GMS tersisa pada KE setiap dua minggu pengujian, dari minggu ke-0 sebesar 75.74, 41.81, 36.84, 23.28, dan 8.68, dimana kadar GMS tersisa pada KNE sebesar 72.45, 58.33, 47.34, 20.75, dan 2.23. Waktu kadaluarsa t80 IPM dan GMS KE berdasarkan perhitungan masing-masing 6.39 dan 3.58 minggu. Pada KNE, waktu kadaluarsa IPM dan GMS masing-masing 6.05 dan 2.25 minggu.
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ABSTRACT
The stability of dosage form shall be maintained in preparing a pharmaceutical formulation, which is acceptable during the period of storage, its nature and characterization remain the same as when it was manufactured. In this research, the formulation of ethosomal KE and non ethosomal KNE azelaic acid cream is prepared, cream was evaluated, physical and chemical stability test of stearic acid and myristic acid as degradation result of the cream base. Organoleptic KE test for 8 weeks storage of low, room, and high temperature occurs ethosomal phase separation, rancid odor, and sineresis. Cycling and mechanical test of KE occurs the separation of ethosome. In the chemical stability test, percentage of IPM remained at KE every two weeks of testing, from zero week was 99.16, 95.65, 92.86, 91.95, and 71.68. The remaining percentage of IPM in KNE was 99.08, 89.69, 88.56, 87.83, and 40.53. The remaining percentage of GMS remained in KE every two weeks was 75.74, 41.81, 36.84, 23.28, and 8.68, where the remaining GMS in KNE was 72.45, 58.33 47.34, 20.75, and 2.23. Expiration date t80 IPM and GMS in KE is 6.39 and 3.58 weeks. In KNE, texpiration date of IPM and GMS is 6.05 and 2.25 weeks.