

**PENGARUH KONSENTRASI PENGAWET
NATRIUM BENZOAT TERHADAP
KARAKTERISTIK, STABILITAS FISIKA & pH
PADA *WATER BASED POMADE*
YANG MENGANDUNG EKSTRAK *Aloe vera***

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh dari perubahan konsentrasi natrium benzoat yang digunakan sebagai pengawet pada formula *water based pomade* terhadap karakteristik *pomade* yang mengandung bahan aktif ekstrak *Aloe vera* 0,5%, untuk mengetahui formula sediaan *water based pomade* stabil secara fisika dan pH yang disimpan pada *climatic chamber* suhu 40°C dan RH 75% dan untuk mengetahui apakah perbedaan stabilitas antara formula sediaan *water based pomade*. Penelitian ini dilakukan dengan membandingkan 3 formula dengan variasi konsentrasi natrium benzoat yang berbeda, yaitu formula I dengan konsentrasi 0,1%, formula II dengan konsentrasi 0,2%, dan formula III dengan 0,5%. Sediaan *water based pomade* disimpan dalam *climatic chamber* pada suhu 40°C dan RH 75% selama 30 hari, kemudian diuji parameter stabilitas fisika, yaitu organoleptis, viskositas, sifat alir, daya sebar, daya tercurikan air, serta nilai pH dari masing-masing sediaan. Pengamatan dilakukan pada 3 titik, yaitu hari ke-0, ke-15, dan ke-30. Hasil penelitian menunjukkan bahwa konsentrasi natrium benzoat tidak mempengaruhi karakteristik pada *water based pomade* yang mengandung bahan aktif ekstrak *Aloe vera* 0,5%. Hasil penelitian menunjukkan bahwa *water based pomade* tidak stabil terhadap parameter fisika dan pH, pada formula I, II, dan III tidak stabil dalam hal daya tercurikan air dan pH setelah disimpan pada suhu 40°C dan RH 75%, dan tidak terdapat perbedaan stabilitas antara formula I, II, dan III.

Kata Kunci: stabilitas fisika dan pH, *water based pomade*, natrium benzoat, ekstrak *Aloe vera*

The Influence of Sodium Benzoate Concentrations on Characteristics, Physical and pH Stability of Water Based Pomade with *Aloe vera* extract

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ABSTRACT

The purpose of this study was to determine the influences of concentrations of sodium benzoate as preservatives of water based pomade on pomade's characteristics with 0.5% *Aloe vera* extracts as its active ingredients, also to determine whether the water based pomades are physically and pH stable over the storage in Climatic Chamber with 40°C temperature and 75% RH, and to determine the differences within water based pomade formulas. The study was conducted with comparing three formulas with different concentrations of sodium benzoate, the concentration were 0.1%, 0.2% and 0.5% respectively. Water based pomades were stored in a Climatic Chamber with 40°C temperature and 75% RH over 30 days, then the physical properties (organoleptic, viscosity, flowability, spreadability, washability) and pH values of each formulas were studied. The pomades were then observed on several days, before being stored in Climatic Chamber (Hari ke 0), 15 days after being stored in Climatic Chamber (Hari ke 15) and 30 days after being stored in Climatic Chamber. The results of the study indicated that the concentrations difference of sodium benzoate did not influence the characteristics of water based pomades with 0.5% *Aloe vera* extract as its active ingredients. The results of the study also indicated that water based pomades was not physically and pH stable, and all three formulas were not stable in washability and pH values after being stored for 40°C temperature and 75% RH, and no stability differences were found within all three formulas.

Keywords : physical and pH stability, water based pomade, sodium benzoate, *Aloe vera* extract