

INTISARI

Penelitian tentang *reworking potential* Polivinilpirolidon (PVP) sebagai bahan pengikat pembuatan tablet metampiron secara granulasi basah telah dilakukan dengan tujuan untuk mengetahui *reworking potential* polivinilpirolidon (PVP) setelah mengalami beberapa kali pengempaan yang dapat dilihat berdasarkan sifat fisik tablet yang dihasilkan. Jenis penelitian yang dilakukan adalah eksperimental murni dengan rancangan penelitian acak lengkap pola dua arah.

Penelitian diawali dengan membuat tiga formula tablet dengan kadar polivinilpirolidon (PVP) masing-masing 5%, 10%, 15% kemudian dilakukan pengempaan sebanyak tiga kali pada masing-masing formula dengan tekanan yang sama. Hasil pada tiap pengempaan dihancurkan untuk mendapatkan granul dengan ukuran 14/35 mesh. Granul dan tablet yang didapat diuji sifat fisiknya. Data yang diperoleh dianalisis dengan dua cara pendekatan yaitu pendekatan teoritis dengan membandingkan hasil yang didapat dengan pustaka yang ada dan pendekatan statistik menggunakan analisis varians (ANAVA) dua arah dengan taraf kepercayaan 95 %, yang dilanjutkan dengan uji *scheffe* (t).

Hasil penelitian menunjukkan bahwa ada pengaruh pengempaan berulang terhadap sifat tablet yang dihasilkan. Tablet hasil pengempaan awal memiliki kekerasan lebih kecil dari pada tablet yang mengalami pengempaan berulang. Pada tablet yang mengalami pengempaan berulang (sampai dua kali) kekerasannya meningkat, kerapuhannya cenderung sama. *Reworking potential* dari polivinilpirolidon setelah mengalami pengempaan berulang (sebanyak dua kali) meningkat namun masih baik karena tablet yang dihasilkan masih memenuhi persyaratan sifat fisik tablet yang diperbolehkan.

ABSTRACT

The research about polyvinylpyrrolidone (PVP) reworking potential as a binding agent in the making of metamphyron tablet using wet granulation method has been conducted, the research aimed to knowing the polyvinylpyrrolidone (PVP) reworking potential after several compressbased on physical characteristic of the produced tablet. This study was simple experimental research by using two way pattern random method.

This research was started by produced three tablet formulas with polivinilpyrrolidone (PVP) proportion in each of 5%, 10%, 15% formula and then conducted three times compression in every formula with the same pressure. The result of each compression was disintegrating to gain 14/35 mesh size granule. The physical characteristic of the granule and the tablet produced was tested. The data gained was analyzed with two approaches, first was theoretical approach that was conducted by comparing the result to the literature. Second was statically aproach by using ANOVA (Analysis of variance) two ways with its reliability was 95%, and it will be proceed with the scheffe test.

The result of the research showed that there was recompression effect to the physical characteristic of the tablet that was produced. The tablet that was produced by one compression having lower hardness compared to the tablet which produced trough several compression. The tablet that produced trough twice compression having increasing hardness and the same friability. Until the third compression, reworking potential of the polyvinilpyrrolidone (PVP) was increase but still good, it was because of the tablet produced was accomplished the physical characteristic requirement.