

## BAB 5

### SIMPULAN

#### 5.1. Simpulan

Berdasarkan data penelitian yang telah diinterpretasikan, dapat ditarik kesimpulan :

- Teknik likuisolid untuk membuat tablet lepas lambat klorfeniramin maleat dengan menggunakan polimer hidrofilik *guar gum* dan PEG 400 sebagai pelarut *non volatile* dapat menurunkan laju disolusi klorfeniramin maleat.
- Jumlah PEG 400, konsentrasi *guar gum* serta interaksi keduanya berpengaruh signifikan terhadap kekerasan tablet tetapi tidak berpengaruh signifikan terhadap *Hausner Ratio*, *Carr's Index*, kerapuhan tablet dan nilai konstanta laju disolusi.
- Pelepasan tablet likuisolid klorfeniramin maleat mengikuti persamaan *Kosmeyer-peppas* dan mengikuti mekanisme difusi *Fickian (case I diffusion)* yaitu laju difusi lebih kecil daripada laju relaksasi.
- Formula optimum tablet klorfeniramin maleat dapat diperoleh dengan menggunakan jumlah pelarut *non volatile* PEG 400 sejumlah 17,6 mg dan konsentrasi polimer hidrofilik *guar gum* 39% dari bobot tablet (500 mg) dengan hasil teoritis *Hausner Ratio* sebesar 1,234; *Carr's Index* sebesar 19,1342 %; kekerasan tablet sebesar 12,49 Kp; kerapuhan tablet sebesar 0,13 %; dan nilai konstanta laju disolusi sebesar 0,0102 mg/menit.

## **5.2. Alur Penelitian Selanjutnya**

Dapat dilakukan penelitian lebih lanjut mengenai tablet lepas lambat likuisolid dengan mencari dan membuktikan formula optimum terpilih, kemudian dibandingkan dengan hasil yang secara teoritis.

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