

# PENINGKATAN KELARUTAN PENTAGAMAVUNON-0 DENGAN PENAMBAHAN TWEEN 80

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**Abstract.** Dissolution of drug substance represent one of important conditions in pharmacy area especially in formulation of a drug form. If we like to reach the good imbibition, drug have to stay in the dissolve form, therefore dissolution speed represent the determinant of imbibition speed for the drugs of which difficult to dissolve. Pentagamavunon-0 represent the analogous of kurkumin owning dissolution very small in water. therefore needed an approach in the effort this improvement pentagamavunon-0 with the technique of addition by substance of nonionic surfactan tween 80. To know the ability tween 80 in improving dissolution pentagamavunon-0 done by test of dissolution pentagamavunon-0 with the filtration method in condensation tween 80 rate  $3,82 \times 10^{-3}M$ ;  $7,63 \times 10^{-3}M$ ;  $1,53 \times 10^{-2}M$ ;  $2,29 \times 10^{-2}M$ ;  $3,05 \times 10^{-2}M$  at temperature 37, 45, 60 C [0,5 C]. Statistic analysis which we used is Kruskal-Wallis H method continued with the Median test. Result of research show the existence of difference meaning of the result test dissolution pentagamavunon-0 at various rate tween 80 (Sig =0,27) and different temperature (Sig.= 0,05) with the highest dissolution pentagamavunon-0 at the addition tween 80 rate  $3,82 \times 10^{-3}M$ . React between pentagamavunon-0 and tween 80 happened in exothermic ( $\Delta H= -13,42554$  kal / mole) and spontaneously ( $\Delta F = - 4857,21$ ;  $- 4378,66$  ; and  $- 4138,72$  kal / mole). Interaction that happened especially entangle the interaction of pattern physical induce pentagamavunon-0 by tween 80 and the solubilisation process happened in the later area palisade continued in the center misel.

**KEY WORDS:** *KELARUTAN, PENTAGAMAVUNON-0, TWEEN 80*