

ABSTRACT

(LITERATURE REVIEW)

THE EFFECT OF *GELLING AGENT* CARBOPOL AND HPMC (*Hydroxy Propyl Methyl Cellulose*) ON pH OF GEL PREPARATION

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The addition of a *gelling agent* is used to obtain the characteristics of the preparation in accordance with the expected specifications/criteria. This literature review aims to determine how the effect of Karbopol and HPMC as gelling agents on the pH of gel preparations. To be able to determine the pH, the measurement of the pH of the preparation is carried out using a pH meter. The pH requirements of topical preparations are between 4.5-6.5. The results of a literature review based on the first journal, the higher the concentration of carbopol, the pH becomes acidic, in the second journal it can be concluded that the higher concentration of carbopol, the pH becomes alkaline and the higher concentration of HPMC the pH becomes acidic, this is because there is the addition of TEA with the same concentration as carbopol, and in the third journal, the lower concentration of carbopol and HPMC, the pH becomes alkaline, otherwise if the concentration of carbopol and HPMC is higher, the pH becomes acidic. From the results of the discussion, it can be concluded that the higher the concentration of carbopol, the pH of the preparation becomes acidic because carbopol is acidic, this does not apply if the concentration of TEA is the same as or higher than that of carbopol, the preparation is alkaline because TEA it is alkaline. For further research journals, it is necessary to do a pH test on the main ingredients using carbopol and HPMC bases so that the appropriate concentration can be determined and get pH test results that meet the requirements of the gel preparation.

Keywords : *gelling agent*, karbopol, HPMC