

EFFECT OF VCO AND OLIVE OILS TO THE PHYSICOCHEMICAL CHARACTERISTICS OF LIQUID SOAP PATIKAN KEBO EXTRACT

(Euphorbia hirta L.)

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ABSTRACT

Liquid soap is made from patikan kebo extract (*Euphorbia hirta L.*) because it is believed that patikan kebo contains phenolic compounds, flavonoids, saponins, tannins and alkaloids that have antibacterial activity. VCO and olive oil were chosen as sources of fatty acids and surfactant in the manufacture of liquid soap. The combination of these two fatty acids will produce a milder soap. This study aims to determine the physicochemical properties of liquid soap formulations with varying concentrations of VCO and olive oil. The method used is an experimental laboratory method with descriptive analysis. The treatment in this study was formulation 1 with a ratio of the concentration of VCO and olive oil which is 1: 0, formula 2 is 3: 1, formula 3 is 1: 1, formula 4 is 1: 3, and formula 5 is 0: 1 of 200 ml liquid soap. The parameter observed for liquid soap included chemical properties, physical properties of soap, and organoleptic test. The result shows that all treatments complies the requirement SNI 2588:2017. The formula of liquid soap with treatment 3 was revealed as the best product with 0,90% of total acid content, viscosity of 940,2 cPs, pH value of 8,51, specific gravity 1,05 gram/ml, and total plate count 0 colonies/g. This technology process of natural liquid soap production with the VCO and olive oil could be develop and apply in industrial scale.

Keywords : Patikan kebo, VCO, olive oil, liquid soap.