PEMBUATAN SABUN CAIR BERBAHAN DASAR MINYAK JARAK DAN *VIRGIN COCONUT OIL* (VCO)

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INTISARI

Pembuatan sabun cair berbahan dasar minyak jarak dan *Virgin Coconut Oil* (VCO) telah dilakukan. Tujuan dari penelitian ini adalah mendapatkan komponen senyawa yang terkandung dalam VCO dan minyak jarak yang berperan dalam memberikan sifat sabun berdasrkan jenis lemaknya sebagai bahan dasar pembuatan sabun cair, mengetahui proses pembuatan sabun cair dari VCO dan minyak jarak, dan melakukan pengujian sabun sesuai dengan mutu standar sabun cair. Pembuatan sabun cair dilakukan dengan metode *semi boiled process*. Evaluasi ditentukan dengan analisis sifat fisika kimia sabun.

Hasil penelitian menunjukkan bahwa senyawa-senyawa penyusun VCO yang berperan dalam memberikan sifat sabun berdasrkan jenis lemaknya sebagai bahan dasar pembuatan sabun cair meliputi asam laurat, metil stearat, dan metil linoleat, sedangkan pada minyak jarak meliputi metil linoleat, metil oleat, metil stearat, dan metil risinoleat. Pembuatan sabun cair dengan metode *semi boiled process* menghasilkan sabun kalium dengan nilai pH masing-masing perlakuan dalam range pH 8,5 hingga 9,4, kadar air sabun berkisar 50,5% hingga 55,5%, bobot jenis yang dihasilkan dari kelima perlakuan yaitu 1,022 hingga 1,034, dan kadar asam lemak bebas sabun bernilai 0,91% hingga 2,36% sesuai dengan batas SNI, sedangkan asam lemak tak tersabunkan pada VCO 40% dan 50% melebihi SNI dengan kadar masing-masing sebesar 2,70% dan 2,94%, viskositas pada kelima perlakuan bernilai signifikan antara 15,6 poise hingga 85,4 poise, banyak busa hanya dihasilkan pada perlakuan VCO 10% dan 20% secara berturut-turut bernilai 16,50% dan 14,50%, stabilitas busa baik pada VCO 10% maupun VCO 20% diperoleh nilai sebesar 85%, sedangkan perlakuan lain tidak memiliki nilai stabilitas busa.

Kata kunci: minyak jarak, *vrgin coconut oil*, sabun, *semi boiled process*

LIQUID SOAP MAKING FROM CASTOR OIL AND VIRGIN COCONUT OIL (VCO)-BASED

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ABSTRACT

Liquid soap making from castor oil and Virgin Coconut Oil (VCO)-based has been done. The purposes of this research are to obtain the chemical compounds that contained in the VCO and the castor oil for making liquid soap, knowing the process of making liquid soap from VCO and castor oil, and testing the soap according to the standard quality of liquid soap. Making liquid soap was done by semi boiled process method. Evaluation was determined by the analysis of the chemical and physical properties of soap.

Studies have shown that chemical compounds in VCO which giving a soap trait based on its kind of fat for making liquid soap include methyl lauric, methyl stearic, and methyl linoleic while castor oil covers methyl linoleic, methyl oleic, methyl stearic, and methyl risinoleic. A semi boiled process produced potassium soap. The pH value of each treatments were ranging from 8.5 to 9.4. The water levels were in SNI range, ranging from 50.5% to 55.5%. The wight produced with score ranging from 1.022 to 1.034. The level of free faty acids were 0.91% to 2.36% above the SNI limit. Unsaponified faty acids in VCO were 40% and 50% higher than SNI by 2.70% and 2.94% respectively. Viscosity on the five treatments were significantly ranged 15.6 poise to 85.4 poise. The foam was only produced only on VCO treatments of 10% and 20% in a row worthed 16.50% and 14.50%. The stability of the foam in both VCO 10% and 20% were earned by 85%, whereas other treatments has no value of foam stability.

Key words: castor oil, vrgin coconut oil, soap, semi hot process