

Manufacture of Soap From Waste Cooking Oil

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Abstract: The consumption of the same is crucial to regulating and reducing its usage because used cooking oil is recycled from a variety of sources. Waste cooking oil is a good option for soap making because it is less expensive than other materials. This study was conducted with its primary purpose being to salvage waste cooking oil and processing into soap within the acceptable saponification values using caustic soda at different batches. The method adopted resulted in favorable outcome, and reduced cure time was observed in subsequent trials. The soap is suitable for cleaning and washing. Soap made from waste cooking oil can be a potential product that can be developed to improve the economy and as an effort to preserve the environment by utilizing household waste. Waste cooking oil can be reprocessed into soap-based ingredients through an oil purification system so that the color is clear and does not smell rancid by using bagasse and orange-peel adsorbents in the bleaching process. Cooking oil consumption in Indonesia is very high and tends to rise every year, reaching 500,000 tons/year. Waste of used cooking oil pollute water and reduces the biota. Therefore, the conversion of used cooking oil will help to reduce environment damage. One of the conversions done is making the bulk cooking oil into soap. This study aims to determine the effect of NaOH concentration on the quality of soap made from purified used cooking oil.

Keywords: Waste cooking oil, Saponification, Coconut oil, Sodium hydroxide, Moisture content, Eco friendly

