

ABSTRACT

THE EFFECT OF ADDING 15% TURMERIC POWDER IN USED COOKING OIL ON ACID NUMBER WITH VARYING ADSORPTION TIME

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Cooking oil is one of the human needs used in daily food processing. Cooking oil that is used repeatedly is called used cooking oil. The use of used cooking oil is not recommended, because if consumed repeatedly it will have a bad impact on the body and can cause diseases that are very risky because there is a high content of carcinogenic compounds, such as free fatty acids. Therefore, it is necessary to purify used cooking oil using the adsorption method. Testing the acid number value using the alkalimetric titration method. The adsorbent used in this study was 15 grams of turmeric with varying lengths of contact time of 35, 45, 50, 55, and 60 minutes at 70°C and obtained acid number values of 1,0947 mg KOH/g; 1,5154 mg KOH/g; 1,4574 mg KOH/g; 1,3918 mg KOH/g; 1,0947 mg KOH/g. Based on calculations using SPSS, the Asymp.Sig value is <0.05, it can be concluded that the length of adsorption contact time has an effect on reducing the acid number in used cooking oil with the highest percent reduction in the 60 minutes contact time of 45,95%

Keywords: Used Cooking Oil, Acid Number, Turmeric, Adsorption.