ABSTRACT

IDENTIFICATION OF FREE FATTY ACID IN WOSTED OIL FROM TRADERS IN THE CENTRAL SURABAYA AREA

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Cooking oil is one of the basic necessities that is often used by society today, both on a household scale and an industrial or factory scale. Continuous and repeated use of cooking oil at high temperatures (160°C-180°C) is accompanied by contact with air and water during the process will result in degradation reactions in the oil and produce various reaction compounds. Cooking oil also changes color from yellow to dark. This degradation reaction reduces the quality of the oil and ultimately the oil can no longer be used and must be thrown away. The aim of the research is to determine the results of free fatty acid levels in used cooking oil and determine the quality of cooking oil used by penyetan and fried food traders in the central Surabaya area. The method for collecting samples is by going directly to the location. A survey of the behavior of using used cooking oil by traders in the central Surabaya area was to use cooking oil with repeated use frequency. Of the 5 traders who tested samples of used cooking oil, the 1st found free fatty acid levels of 0.8078mg KOH/g. Setup 2 0.4686mg KOH/g. Setup 3 1.6174mg KOH/g. Setup 4 2.7193mg KOH/g. And fried food traders obtained results of 0.8729mg KOH/g. Everything was found to be unfit for use, because it had exceeded the provisions of SNI 7709:2019, namely 0.3%.

Keyword: Used Cooking Oil, Free Fatty Acids