

Detection of free fatty acid in crude palm oil

ABSTRACT

Palm oil quality and price is dependent on the free fatty acids (FFA) content in palm oil. High content of free fatty acids in palm oil affect the quality of palm oil and leads to various health and environmental issues. The maximum free fatty acids content set by the Palm Oil Refiners Association of Malaysia in crude palm oil is 5 % and < 0.1 % in refined bleached deodorized oil. Due to the high demand in palm oil industry market nowadays, various works has been done to improve the quality of palm oil including the determination and reduction of free fatty acids in palm oil. The traditional method for determination of free fatty acids in palm oil is through titration of the sample against potassium hydroxide in hot 2-propanol solutions by using phenolphthalein as indicator. Several other methods have also been reported on free fatty acids determination previously for example spectroscopic, chromatography and electrochemical technique. This paper reviews all methods reported for determination of free fatty acids in palm oil.

Keyword: Palm oil; Free fatty acids