"ANALYSIS OF CYANIDE COMPOUNDS AND DETERMINATION OF LoD (LIMIT OF DETECTION) USING COMPLEXOMETRIC TITRATION METHOD ON TRADITIONAL GETHUK FOOD"

Yuliarini*, Wattiheluw

D3 Pharmaceutical and Food Analysis Study Program, Poltekkes Kemenkes Malang

Email : yuliarini6904@gmail.com

ABSTRACT

Background : Gethuk *is a traditional food made from cassava tubers which are boiled and then mashed or crushed. However, cassava tubers contain cyanide which can cause poisoning if consumed. Therefore, it is necessary to conduct research on the cyanide content in traditional* gethuk *foods.* ***Objective :*** *The purpose of this study was to determine the presence or absence of cyanide compounds and the levels of cyanide compounds in traditional* gethuk *food and to determine the detection limit of the complexometric titration method in the analysis of cyanide compounds in traditional* gethuk *food.* ***Research method :*** *Research on cyanide content uses picrate paper, while cyanide levels are measured using the complexometric titration method.* ***Research Results :*** *The results of the study showed that in the qualitative test, cyanide compounds were positive in cassava tubers, while in the processing of steamed cassava tubers and* gethuk*, negative results were obtained. The results of the quantitative test on raw cassava tubers were 0.0161 mg, in steamed cassava 0.0087 mg, and in* gethuk *0.0065 mg. The results of the detection limit of the complexometric titration method for cyanide compounds in cassava tuber samples with a concentration of 4.032292 mg, in steamed cassava tuber samples with a concentration of 7.309519 mg, and in traditional* gethuk *food samples with a concentration of 14.43161 mg.* ***Conclusion :*** *From the research results, it can be concluded that traditional* gethuk *food contains cyanide at low levels which meet the requirements based on SNI 01-7152-2006 that the amount of cyanide permitted in food is 1 mg/kg.*

Keywords : Gethuk*, Cyanide , Complexometric Titration*