ABSTRACT

MAYA KANDIANA. Toxicity Test Powder of Cu Complex Extract Chlorophyll Derivate (Chlorophyllin Copper Complex Sodium) Premna oblongifolia Merr. Leaf as a Raw Food Supplements. Supervised by CLARA M KUSHARTO, IKEU TANZIHA, and M JANUWATI

Chlorophyll can improving human health and recently it have been promoted as one of food supplement. The disadvantage characteristics of chlorophyll is their extreme lability, e.g. sensitive to light, heat, oxygen and chemical degradation. Therefore, for getting a stable chlorophyll compound, it needed special process, those a right way is making copper complexes of chlorophyll derivative by adding copper (Cu) into the chlorophyll derivate. The objective of this study is determining the safety level of Cu complex extract chlorophyll derivative (Chlorophyllin Copper Complex Sodium) powder; and to analyze the content of copper, and Chlorophyllin Copper Complex Sodium as well as qualitatively phytochemical analyze. The toxicity tests used Brine Shrimp Lethality Test (BSLT) method and Artemia salina Leach as bio indicator. Toxicity level is determined by the value of lethal concentration (LC₅₀), if the LC₅₀ value more than 1000 ppm, the powder substance is not toxic to Artemia salina Leach. This experiment use Premna oblongifolia Merr fresh leaves as the source of chlorophyll. They were picked up from the research park at Cimanggu, Bogor, Banten. The optimal powder by adding of 0,002 mol copper, which yield content of Chlorophyllin Copper Complex Sodium was 8.71 mg / g and the value of LC₅₀ was 652.93 ppm, so powder by adding of 0,002 mol copper was not toxic to Artemia salina Leach.

Keywords: Premna oblongifolia Merr, chlorophyll, copper, Artemia salina Leach.