ABSTRACT

TOXICITY TESTS ON ACTIVE MATERIAL *NICLOSAMIDE* TO WARD CRUSTACEAN AS *WATERTREATMENT* IN CULTURING OF VANNAMEI SHRIMP *(Litopenaus vannamei)*

By

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The problem which often arises in vannamei shrimp culturing activities is the presence of pests and diseases. Biosecurity system is required in shrimp culturing such as the use of water treatment facilities and the use of safe disinfectant and certainly not forbidden. There are still many types of disinfectants used even though its use has already been banned, one of them is *organochlorine*s. Dichlorphos is a kind of active ingredients of organochlorines which is still used in the fishery.It is necessary to seek the replacement of dichlorphos to be crustacide (term for an exterminator of crustaceans) in shrimp aquaculture water treatment. The active ingredients are developed to substitute dichlorvos is *niclosamide*. So far,niclosamide is used to eradicate snails or mulberry slugs (*Pamacea sp*.) which are pests in rice production. This study aims to determine the potential of niclosamide to be crustacide based on the level of toxicity of the active ingredient of niclosamide based on the value of LC_{50}- 24 hours against crustaceans and determine the length of the residual effect of niclosamide in water. The study used a completely randomized design method with four different concentration levels and 0 ppm as a control; 1.7783 ppm; 3.1623 ppm; 10.0002 ppm and 5.6235 ppm. To determine the duration ofthe residual effects, the detoxification testis used. Probity analysis results in test animals showed a 24-hour LC_{50}- value of 3.6282 ppm and detoxification test showed a residual effect *niclosamide* in water for 96 hours with 10.0002 ppm concentration.

Keywords: Crustaceans, the active ingredient *niclosamide*, toxicity, probity analysis.