



Repellent Lotion from Mixture of Basil (*Ocimum basilicum* L.) Essential Oil and *Aloe vera* Extract

Nazliniwaty*, Masfria

Department of Pharmaceutical Technology, Faculty of Pharmacy, University of
Sumatera Utara, Indonesia, 20155 Jl. Tri Dharma No. 5, Pintu 4, Kampus USU, Medan,
Indonesia, 20155.

Abstract : Mosquitoes are vectors that can transmit the disease to humans such as Dengue Hemorrhagic Fever (DHF). One way to avoid mosquito bites by using mosquito repellent natural medicine raw materials taken from nature. Essential oils of basil leaves that have specific aroma can be used as a mosquito repellent. Essential oils of basil leaves when rubbed into the skin causing a bit of heat, therefore added aloe vera extract that can including moisturizers, provide a sense of cold in the skin as well as an antiseptic. The purpose of this study was to determine the repellent activity from essential oil of basil leaf and *Aloe vera* extract against *Culex pipiens* lotion. Essential oils with some concentrations (7.5% and 10%) are formulated in lotion. Physical properties (pH, homogeneity, emulsion type, and stability), irritation, moisture effect, and repellent activity of lotions are tested. The results showed that all the lotion preparations were homogeneous and easily poured, stable during storage of 12 weeks, and did not irritate the skin. From this research resulted a mosquito repellent lotion that is safe for health, can be used continuously and environmentally friendly.

Keywords: *Ocimum basilicum*, *Aloe vera*, essential oils, repellent, lotion.

Nazliniwaty *et al*/International Journal of PharmTech Research, 2016,9(12): 457-461.
