

## ABSTRACT

Asaa Nabilah Yasmin. 24020120140150. **Formulation and Antioxidant Testing of Lip Balm Preparations with Red Guava Leaf Extract Supplementation (*Psidium guajava* var. *pomifera*)**. Under the guidance of Agung Suprihadi and Sri Pujiyanto

Red guava leaves have high antioxidant properties which have the potential to be supplemented as an alternative to using natural antioxidants in additional formulations of *lip balm*. This research aims to formulate moisturizing *lip balm* preparations with the addition of red guava leaf extract to determine the antioxidant content and its ability to produce good *lip balm* formulations in accordance with the Indonesian National Standard (SNI), using several variations in the concentration of adding red guava leaf extract F0 (0%), F1(1%), F2(3%), and F3(5%). Tests of antioxidant extracts and preparations were carried out using the DPPH (1,1-diphenyl-2-picrylhydrazyl) method. Evaluation of the physical quality of the product is carried out by observing the parameters of homogeneity, melting point, pH and stability. The antioxidant test results of guava leaf extract include very strong antioxidants with an  $IC_{50}$  value of 17,716 ppm. All preparation formulas meet SNI standards with a good and homogeneous appearance, a melting point value of 60°C and a pH of 7.0-7.3. All formulas are classified as less active or very weak antioxidants with values of  $IC_{50}$  F0 (2,397,743 ppm), F1 (2,170,497 ppm), F2 (855,966 ppm), and F3 (684,788 ppm).

*Keywords: Red Guava Leaves, Lip balm, Antioxidant, Physical Evaluation*