

**Khodry, William, 2019, “Isolation and Identification of Phenolic Compounds From Bark of *Eucalyptus deglupta* and Antioxidant Activity Tests with DPPH”, Essay, under the guidance from Dr. Alfinda Novi Kristanti, DEA, and Dr. Nanik Siti Aminah, M.Si. Chemistry Department, Faculty of Sains and Technology, Airlangga University, Surabaya.**

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### ABSTRACT

*Eucalyptus deglupta* is an endemic plant originating from Palu, Central Sulawesi and belongs to the family of Myrtaceae. The purpose of this study was to determine the chemical structure of the isolated compound from the bark of the plant *Eucalyptus deglupta*, and determine antioxidant activity against DPPH radical compounds. Isolation of secondary metabolites from the bark of *Eucalyptus deglupta* was carried out by fractionation and purification using gravity column chromatography. The results of *Eucalyptus deglupta* bark isolation was obtained catechin, which is secondary metabolites of flavan-3-ol (flavonoids). The Structure of catechin was known through analysis of UV-Vis spectrophotometers, IR spectrophotometers and 1D NMR spectroscopy (<sup>1</sup>H-NMR and <sup>13</sup>C-NMR) and 2D NMR (HSQC and HMBC). The antioxidant activity test was carried out in vitro with DPPH using a spectrophotometric method of ethyl acetate extract, where the IC<sub>50</sub> results obtained was 53.62 ppm and categorized as active.

**Keywords:** *Eucalyptus deglupta*, flavan, catechin, antioxidant