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The internship program at the General Laboratory of PT Sucofindo Laboratory Unit Surabaya Branch on 10 June 2019 – 2 August 2019. In this fieldwork practice, we discussed the analysis of vitamin A levels in cooking oil samples using the HPLC (High-Performance Liquid Chromatography) method. The analysis of vitamin A levels using the HPLC method includes various steps: testing the purity of vitamin A palmitate, preparing standard solutions, and determining the concentration of vitamin A (in g/g as retinol).

First step is test the purity vitamin palmitate with this equation

$$\%purity = \frac{ABS\ x\ 5\ x\ 10^6}{960\ x\ W}$$

The second step is preparing standard solutions such as retinyl palmitate with various concentrations 1; 2; 3; 4; and 5 iU/mL. The sample was taken by 2 grams and added by ethanol and pyrogallate acid as an oxidizing agent, extraction, and saponification, then tested by HPLC.

HPLC test is carried out by injecting a standard solution from high to low concentration, then the sample solutions. After that, determine the responses with this equation.

$$RF_A = \frac{mg\ std\ x\ mL\ std\ x\ kemurnian\ std\ x\ 0{,}5458}{pkHt\ std\ x\ 200}$$

Based on the results of the analysis obtained vitamin A levels in the sample 74.7885 IU/g.

Documentation		
 Sample and retinyl palmitate weighing	 Dissolved with 2-propanol	 standard solution ready to inject HPLC
 Tested by Spectrophotometer uv-vis	 Cooking oil 6678 & 6679	 Cooking oil weighing

 Added by 50 mg pyrogalate acid	 Added by ethanol and KOH	 Reflux in 90 ^{o}C for 30 minutes
 Cooling down at room temperature and added by acetate glacial	 Filter with filtrate paper	 Sample ready to inject in HPLC