

Uci Nur Rohmah (Chemistry 2016)

UPT Pengujian Mutu dan Pengembangan Produk Kelautan dan Perikanan (PMP2KP)

Surabaya Provinsi Jawa Timur

I have internship experience at UPT Pengujian Mutu dan Pengembangan Produk Kelautan dan Perikanan on 1st July – 31st July 2019. During my internship, my task was to analyze the fat content and ash content in processed catfish products using the gravimetric method. The research method starts from the preparation of tools and materials, sample preparation, and gravimetric analysis.

In fat content analysis, the sample preparation stage begins by pulverizing the sample with a blender until it is homogeneous. The analysis phase is carried out by weighing 2 grams of the sample homogenate by weighing 2 grams of the homogenate, then inserting it into the Soxhlet extractor and extracting it at a temperature of 155 °C for 80 minutes with N-Hexane. Then evaporated and dried, and the results were weighed. Fat content is calculated using the equation:

$$\% \text{Fat content} = \frac{\text{fat mass separated}}{\text{sample mass}} \times 100\%$$

In the analysis of ash content, the principle of testing in this analysis is that the sample is oxidized at a high temperature. The ash is obtained, which will be calculated by the gravimetric method. The first step is to prepare the sample with a blender until it is homogeneous. The sample was then analyzed by heating 2 grams of the homogenized sample to a temperature of 550 C for 24 hours. The temperature was lowered to 40 C and held for 30 minutes until pure white ash was obtained. Then the mass of ash is weighed, and the percentage of ash content is calculated using the following equation:

$$\% \text{Ash content} = \frac{\text{ash mass}}{\text{sample mass}} \times 100\%$$

The test results show that the fat content of processed products using the Soxhlet method is by SNI-01-2354.3-2006. For testing the ash content, the results obtained are by SNI 2354.1-2010



Weighing samples



Put it in a soxtech extractor and perform extraction at a temperature of 60°C for 8 hours



Evaporation until dry



Put in the oven at 105°C for 2 hours



Cooled in a decicator for 30 minutes



Fat level analysis using soxtech



Put in an empty porcelain ash cup



Removed a cup of porcelain ash and cooled in a decicator for 30 minutes



Put in the oven at a temperature of 100°C for 24 hours



Inserted a cup of porcelain ash into the furnace



Cooled in a decicator for 30 minutes



Weighed in weight