INTISARI

SETYORINI, AW, 2019. PENETAPAN KADAR FORMALIN PADA MIE BASAH YANG DIJUAL DI PASAR WILAYAH BANJARSARI SECARA SPEKTROFOTOMETRI UV-VIS, KARYA TULIS ILMIAH, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Penggunaan formalin sebagai bahan pengawet dalam makanan dilarang dan diatur dalam Peraturan Menteri Kesehatan Republik Indonesia Nomor 033/Menkes/Per/XI/2012. Ada isu temuan penggunaan formalin sebagai pengawet pada mie basah. Maka dilakukan analisis kualitatif dan kuantitatif kandungan formalin dalam mie basah yang dijual di pasar wilayah Banjarsari secara spektrofotometri UV-Vis.

Penelitian dilakukan terhadap sampel yang diambil secara acak dari 3 pasar diwilayah Banjarsari. Sampel mie basah diuji kualitatif dengan pereaksi asam kromatofat yang akan membentuk warna ungu bila terdapat formalin dan diuji kuantitatif secara spektrofotometri UV-Vis. Validasi metode yang dilakukan yaitu presisi, akurasi, linieritas, LOD, LOQ, dan.Kadar formalin dihitung dengan analisis regresi linier dengan persamaan Y = a + b X.

Hasil uji kuantitatif dengan asam kromatofat menunjukkan perubahan khas berwarna ungu.Uji kuantitatif secara spektrofotometri UV-Vis dengan panjang gelombang maksimum λ_{maks} = 589 nm dan operating time = 7 − 9 menit.Validasi metode menunjukkan bahwa linieritas dengan nilai r = 0,99352 dan persamaanY= - 0,21295 + 0,028234 X, LOD =2,0906 ppm, LOQ = 6,3352 ppm, akurasi dengan perolehan kembali = 98,73% dan presisi dengan nilai RSD = 0,000918%. Sampel A =0,0936% ±0,0038%b/b, Sampel B=0,0717% ±0,0003, Sampel C =0,0384%± 0,000071.

Kata kunci : mie basah, formalin, asam kromatofat, spektrofotometri uv − vis.

ABSTRAC

SETYORINI, AW, 2019. DETERMINATION OF FORMALIN LEVELS IN WET MILLS FOR SALE IN BANJARSARI REGION WITH UV-VIS SPECTROOTHOTOMETRY, SCIENTIFIC WRITING, FAKULTAS FACULTY, SETIA BUDI UNIVERSITY, SURAKARTA.

The use of formalin as a preservative in food is prohibited and regulated in the regulation of the minister of health number 033 in 2012. The discovery of the use of formalin as a preservative in wet noodles. Then a qualitative and quantitative analysis of the formalin content in white tofu was sold in the Surakarta market by UV-Vis spectrophotometry.

The study was conducted on samples taken rendomly from 3 markets in the Banjarsari region. Wet noodle samples were tested qualitatively by chromatopic acid reagent which would form purple if there was formalin and tasted quantitatively by UV-Vis spectrophotometry. The method validation that is done is precision, accuracy, liniarity, LOD, LOQ. Formalin levels calculated by linier regression analysis with the equation $Y = a + b\ X$.

The result of quantitative tests with chromatopic acid showed typical changes in purpel. Quantitative test using UV- Vis spectrophotometry with wavelength $\lambda_{maks} = 589$ nm and operating time = 7-9 minutes. Method validation shows that liniarity with value r = 0,99352 and Y equation - 0,21295 + 0,028234 X, LOD = 2,0906 ppm, LOQ = 6,3352 ppm, accuracy with recovery = 98,73% , and precision with RSD values = 0,000918%. Sample A = 0,0936% ±0,0038%b/b, Sample B = 0,0717% ±0,0003, Sample C = 0,0384%± 0,000071.

Keywords: wet noodles, formalin, chromatopic acid, uv-vis spectrophotometry.