

INTISARI

NUGRAHENI, A., 2014, ANALIS SAKARIN PADA KECAP MANIS YANG BEREDAR DI WILAYAH KLATEN SECARA SPEKTROFOTOMETRI UV-VIS, KARYA TULIS ILMIAH, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Sakarin merupakan pemanis sintetis *non-nutritive* yang menghasilkan sedikit energi dengan intensitas kemanisan tinggi kira-kira 200-700 kali lebih manis dari sukrosa. Sakarin bersifat karsinogenik atau menyebabkan kanker. Kecap masih terdapat sakarin sebagai bahan tambahan pemanis pengganti gula. Penelitian ini bertujuan untuk mengetahui kandungan sakarin yang digunakan dalam kecap manis secara spektrofotometri dengan melihat kesesuaiannya pada persyaratan Kepala Badan Standardisasi Nasional Nomor: 12/Kep/BSN-SNI.03/05/2004.

Pengujian sakarin dalam kecap manis meliputi uji kualitatif dan uji kuantitatif. Uji kualitatif sampel dilakukan berdasarkan reaksi warna terbentuknya warna ungu dengan penambahan FeCl_3 . Uji kuantitatif menggunakan metode spektrofotometri, *aquadestillata* terukur pada panjang gelombang maksimal 268 nm berdasarkan metode analisis kurva baku standar dengan variasi konsentrasi 32,04 $\mu\text{g/mL}$; 37,38 $\mu\text{g/mL}$; 42,72 $\mu\text{g/mL}$; 48,06 $\mu\text{g/mL}$; 53,40 $\mu\text{g/mL}$; menggunakan alat spektrofotometer UV-VIS model hitachi U-2900. Berdasarkan hasil penelitian diperoleh kadar sakarin dalam sampel A sebesar 130,9765 mg/kg dan sampel B sebesar 156,4735 mg/kg. sampel A dan sampel B memenuhi persyaratan Kepala Badan Standardisasi Nasional Nomor: 12/Kep/BSN-SNI.03/05/2004 dengan batas maksimum 500 mg/kg.

Kata kunci : Sakarin, Kecap manis, Spektrofotometri UV-Vis

ABSTRACT

NUGRAHANI, A., 2014, AN ANALYSIS ON SACCHARINE CONTAINED IN THE SOYBEAN SAUCE CIRCULATING IN KLATEN AREA IN UV-VIS SPECTROPHOTOMETRY MANNER, SCIENTIFIC WORK, PHARMACY FACULTY, SETIA BUDI UNIVERSITY, SURAKARTA.

Saccharine is non-nutritive synthetic sweetener providing a little energy with high sweetness intensity about 200-700 times higher than sucrose. Saccharine has carcinogenic characteristic or can result in cancer. Soybean sauce still contains saccharine as sweetener replacing sugar. This research aimed to find out the content of saccharine used in sweet soybean sauce in spectrophotometry manner by considering its compatibility with the head of the National Standardization Body Number 12/Kep/BSN-SNI.03/05/2004.

The saccharine examination in soybean sauce included qualitative and quantitative test. The qualitative test on the sample was conducted based on the color reaction in which purple color was created with the addition of FeCl_3 . The quantitative test was conducted using spectrophotometry method, in which aquadestillata was measured at maximum wavelength of 268 nm based on the standard curve analysis method with the concentration variations of 32.04 $\mu\text{g/mL}$; 37.38 $\mu\text{g/mL}$; 42.72 $\mu\text{g/mL}$; 48.06 $\mu\text{g/mL}$; 53.40 $\mu\text{g/mL}$, using hitachi U-2900 model of UV-VIS spectrophotometer.

Considering the result of research, it could be found that the saccharin content of A sample was 130.9765 mg/kg and that of B sample was 156.47535 mg/kg. Samples A and B met the head of the National Standardization Body Number 12/Kep/BSN-SNI.03/05/2004 with a maximum limit of 500 mg/kg.

Keywords: Saccharine, Sweet Soybean Sauce, UV-Vis Spectrophotometry