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WULANDARI, HN, 2015, NITRITE LEVELS ANALYSIS OF WATER STEW COOKING WATER PIPING AND WELL IN TEGAL ARUM AREA, MOJOSONGO, SURAKARTA BY VISIBLE SPECTROPHOTOMETRY, SCIENTIFIC JOURNAL FACULTY OF PHARMACY, UNIVERSITY OF SETIA BUDI.

Analysis of nitrite content in well water and piping water that has been boiled is carried out on samples taken in one of the houses in the Tegal Arum area, Mojosongo, Surakarta. This analysis was conducted at the Laboratory of the University of Setia Budi. The purpose of this analysis is to determine there or not the content of nitrites in well water and piping water that has been boiled repeatedly, if there is the content of nitrite in the piping water and well water, then is there any difference in the nitrite content of the sample before boiling with sample after boiling.

Analysis of nitrite in the piping water and well water that has been boiled in the first 10 minutes, second 10 minutes, and third 10 minutes is using visible spectrophotometry at a wavelength of 360 nm, with the addition of a solution of 1-naftilamina, sulfanilic acid and nitrite standard. The addition of this solution shows a reddish indigo colour in the well water sample and piping water sample.

Based on the analysis result have been obtained, nitrite level found in piping water before boiling at 192.8 ppm and the well water at 193.4 ppm. Nitrite levels in piping water sample, the first stew had level of 237.2 ppm and the second stew had level of 252.7 ppm, while nitrite levels in well water sample, the first stew had level of 216.1 ppm and the second stew had level of 255.5 ppm, this suggest that the levels of nitrite has increased compared with before boiling. Nitrite levels in the third stew, the piping water have a level of 222.6 and the well water had level of 230.0 ppm, this suggest that the third stew has decreased level of nitrite.

Keywords: Nitrite, well water, piping water, visible spectrophotometry.

ABSTRAK

WULANDARI, H.N., 2015, ANALISIS KADAR NTRIT PADA AIR REBUSAN PDAM DAN AIR REBUSAN SUMUR DI DAERAH TEGAL ARUM, MOJOSONGO, SURAKARTA SECARA SPEKTROFOTOMETRI VISIBEL, KARYA TULIS ILMIAH FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI.

Analisis kandungan nitrit pada air sumur dan air PDAM yang telah direbus ini dilakukan terhadap sampel yang diambil di salah satu rumah warga di daerah Tegal Arum, Mojosongo, Surakarta. Analisi ini dilakukan di Laboratorium Universitas Setia Budi. Tujuan dari analisis ini untuk mengetahui ada atau tidak kandungan nitrit pada air sumur dan air PDAM yang telah direbus secara berulang, jika terdapat kandungan nitrit pada air PDAM dan air sumur, maka adakah perbedaan kandungan nitrit dalam sampel sebelum direbus dengan sampel sesudah direbus.

Analisis nitrit pada air PDAM dan air sumur yang telah direbus pada 10 menit pertama, 10 menit kedua, dan 10 menit ketiga ini menggunakan metode spektrofotometri visibel pada panjang gelombang 360 nm, dengan penambahan larutan *1-naftilamine, sulfanilic acid,* dan standar nitrit. Penambahan larutan ini menunjukkan warna nila kemerahan pada sampel air PDAM dan sampel air sumur.

Berdasarkan analisis tersebut didapatkan hasil, kadar nitrit yang terdapat pada air PDAM sebelum direbus sebesar 192,8 ppm dan pada air sumur sebesar 193,4 ppm. Kadar nitrit pada sampel air PDAM, pada rebusan pertama memiliki kadar sebesar 237,2 ppm dan pada rebusan kedua memiliki kadar sebesar 252,7 ppm, sedangkan kadar nitrit pada sampel air sumur, pada rebusan pertama sebesar 216,1 ppm dan pada rebusan kedua sebesar 255,5 ppm, hal ini menunjukkan bahwa kadar nitrit mengalami peningkatan jika dibandingkan dengan sebelum perebusan. Kadar nitrit pada rebusan ketiga, pada air PDAM memiliki kadar sebesar 222,6 dan pada air sumur memiliki kadar sebesar 230,0 ppm, hal ini menunjukkan bahwa pada rebusan ketiga mengalami penurunan kadar nitrit.

Kata kunci : Nitrit, Air sumur, Air PDAM, Spektrofotometri visibel