

Abstrak

Timbal (Pb) merupakan salah satu pencemaran udara yang mempunyai efek toksik yang bersifat kumulatif, deskruktif dan kontinu pada sistem haemofilik, kardiovaskuler dan ginjal. Anak yang menderita toksisitas timbal akan menunjukkan gejala hiperaktif, mudah bosan, mudah terpengaruh, sulit berkomunikasi terhadap lingkungan, dan menjadi lamban berfikir. Efek sistemik keracunan timbal antara lain sakit perut, mual, muntah, anoreksia dan kehilangan berat badan. Pekerjaan sopir angkot setiap hari berada di jalan raya, mereka kontak langsung dengan polusi udara, terutama timbal, sehingga sopir angkot cukup rentan terhadap efek timbal. ICP-MS merupakan instrumen yang belum banyak digunakan karena biaya yang cukup mahal. ICP memiliki kelebihan dalam menganalisis multilogam dan memiliki limit deteksi yang kecil. Hasil Penelitian: konsentrasi timbal tertinggi terdapat pada sampel F dengan kadar timbal 19,57 $\mu\text{g/g}$ dan konsentrasi timbal terendah pada sampel C dengan kadar sampel 0,48 $\mu\text{g/g}$. Rata-rata konsentrasi timbal pada rambut supir angkot rute Ujung harapan – Terminal Bekasi adalah 7,521 $\mu\text{g/g}$. Berdasarkan hasil rata-rata konsentrasi masih dalam batas normal batas normal sebesar $\leq 12 \mu\text{g/g}$ sehingga apabila lebih dari batas tersebut dapat memiliki daya racun yang berbahaya sehingga menimbulkan efek bagi kesehatan.

Kata Kunci: Timbal (Pb), Supir angkutan umum, ICP-MS

Abstrack

Lead (Pb) is one of the air pollutants that has a cumulative, destructive, and continuous toxic effect on the hemophilic, cardiovascular, and kidney systems. Children who suffer from lead toxicity will show symptoms of hyperactivity, get bored easily, easily influenced, have difficulty communicating with the environment, and become slow to think. Systemic effects of lead poisoning include abdominal pain, nausea, vomiting, anorexia, and weight loss. The work of drivers every day is on the highway, they are in direct contact with air pollution, especially lead, so that drivers are quite vulnerable to the effects of lead. ICP-MS is an instrument that has not been widely used because of its high cost. ICP has advantages in analyzing multi-metals and has a small detection limit. Result: The highest lead concentration was found in sample F with a lead content of 19.57 g/g and the lowest lead concentration in sample C with sample content of 0.48 g/g. The average concentration of lead in the hair of an driver on the Ujung Harapan – Bekasi Terminal route is 7.521 g/g. Based on the results, the average concentration is still within the normal limits of the normal limit of 12 g/g so that if it is more than this limit it can have a dangerous toxic power that causes health effects

Keywords: Lead (Pb), ICP-MS, Driver