

# HUBUNGAN MASA KERJA DENGAN KADAR MERKURI RAMBUT PADA TENAGA KERJA BAGIAN *EXHAUST* PADA SEBUAH INDUSTRI LAMPU

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Merkuri merupakan salah satu logam berat yang berwujud cair dan banyak digunakan untuk keperluan kimia serta industri. Merkuri dapat masuk kedalam tubuh melalui udara yang terhirup, melalui makanan/minuman atau dari kontak langsung kulit dengan merkuri. Merkuri selanjutnya masuk kedalam darah, ginjal,serta hati yang kemudian di ekskresikan melalui urine, feses, saliva dan air susu. Penelitian ini bertujuan untuk mengetahui hubungan masa kerja dengan kadar merkuri rambut pada tenaga kerja di bagian *exhaust* pada sebuah industri lampu. Metode penelitian yang digunakan adalah *explanatory research* dengan pendekatan *cross sectional*. Subyek penelitian ini adalah tenaga kerja bagian *exhaust* dengan sampel sebesar 26 sampel. Dalam penelitian ini rambut responden diambil dan dikaji dengan Spektrofotometer Serapan Atom (SSA). Penelitian ini menghasilkan kadar merkuri rambut rata-rata sebesar 2,5688 +/- 2,7278 mikrogram/gram(dibawah nilai ambang batas). Analisa data dengan menggunakan korelasi *pearson product momen* menunjukkan tidak adanya hubungan antara masa kerja dengan kadar merkuri rambut( $p=0,564$ ). Saran bagi perusahaan untuk melakukan pencegahan paparan merkuri pada semua jalur masuk paparan merkeri kedalam tubuh.

**Kata Kunci:** masa kerja, kadar merkuri rambut

## THE ASSOCIATION BETWEEN PERIOD OF WORK AND HAIR LEVELS OF MERCURY ON EMPLOYEES IN THE EXHAUST SECTION AT ONE OF THE LAMP INDUSTRIES

*Mercury is one of the heavy metals that is a liquid at room temperature and uses for chemical need and industries need. A person can be exposed to mercury from breathing in contaminated air, from swallowing or eating contaminated water or food, or from having contact with mercury. Mercury enters the body into lung, blood, kidney, liver and excreted by urine, feces, sweat, breast milk and saliva. The aim of this research was to know the association between period of work and hair levels of mercury on employees in the exhaust section at one of the lamp industries. The research method was an explanatory research using cross sectional approach. This research subject were employees of exhaust section with its, namely 26 samples. Respondent's hair (research subject) were taken and then observed by Atomic Absorption Spectrophotometer (AAS). The arithmetic means of mercury in hair was 2,5688 +/- 2,7278 microgram/gram (under exposure limit). Data analysis used Pearson product moment correlation test indicated that there was no significant correlation between period of work and hair levels of mercury ( $p=0,564$ ). Suggest for the company is doing mercury prevention exposure at all route of body entry.*

*Keyword: period of work, hair levels of mercury*