ABSTRAK

Timbal adalah logam yang lunak berwarna abu-abu kebiruan mengkilat dan memiliki bilangan oksidasi+2. Timbal merupakan salah satu logam yang berat yang sangat berbahaya bagi makhluk hidup karena bersifat karsinogenik, dapat menyebabkan mutasi, terurai dalam jangka waktu lama dan toksisitasnya tidak berubah. Darah adalah suatu suspensi partikel dalam suatu larutan koloid cair yang mengandung elektrolit. Faktor-faktor yang mempengaruhi kadar timbal dalam darah secara fisiologis dapat disimpulkan bahwa faktor usia, lama kerja, kebiasaan merokok, penggunaan alat pelindung diri, jenis kelamin, jenis pekerjaan dan genetik dapat mempengaruhi kadar timbal dalam darah. Destruksi sampel darah dilakukan di Kabanjahe dan tempat pengujian sampel dilakukan di Labkesda (Laboratorium Kesehatan Daerah). Tujuan dilakukannya penelitian adalah untuk mengetahui ada tidaknya kandungan logam Timbal (Pb) dalam darah Pekerja Kebun Cabe di Kabanjahe Tahun 2022. Metode yang digunakan untuk menentukan kadar logam Timbal (Pb) dalam darah adalah metode SSA (Spektrofometri Serapan Atom). Hasil penelitian dari 5 sampel didapatkan Pekerja Kebun Cabe di Kabanjahe, Berastagi pencemaran tingkat Timbal (Pb) pada Nilai Ambang Batas (NAB) berdasarkan Agency for Toxic Substances and Disease Registry (ATSDR) yaitu 3 petani positif pencemaran Timbal (Pb) tingkat sedang dan 2 petani lainnya positif pencemaran tingkat tinggi. Kesimpulan berdasarkan hasil penelitian didapatkan Pekerja Kebun Cabe di Kabanjahe Tahun 2022 Positif tercemar Timbal (Pb).

Kata Kunci   : **Timbal (Pb), Darah, SSA (Spektrofometri Serapan Atom), Darah Petani di Kabanjahe**

ABSTRACT

Lead is a soft, shiny bluish-grey metal and has an oxidation number of +2. Lead is a heavy metal that is very dangerous for living things because it is carcinogenic, can cause mutations, decompose in the long term and its toxicity does not change. Blood is a suspension of particles in a liquid colloidal solution containing electrolytes. The factors that affect blood lead levels physiologically can be concluded that age, length of work, smoking habits, use of personal protective equipment, gender, type of work and genetics can affect blood lead levels. The destruction of blood samples was carried out in Kabanjahe and the place for testing samples was carried out at the Labkesda (Regional Health Laboratory). The purpose of this study was to determine the presence or absence of metallic Lead (Pb) in the blood of Chili Plantation Workers in Kabanjahe in 2022. The method used to determine the levels of metallic Lead (Pb) in the blood was the AAS (Atomic Absorption Spectrophotometry) method. The results of the study of 5 samples showed that one of the Chili Plantation Workers in Kabanjahe, Berastagi Pollution level of Lead (Pb) at the Threshold Value (NAV) based on the Agency for Toxic Substances and Disease Registry (ATSDR), namely 3 farmers were positive for moderate level of Lead (Pb) pollution and 2 other farmers were positive for high level pollution. The conclusion based on the results of the study was that the Chili Plantation Workers in Kabanjahe in 2022 were positive for lead (Pb) pollution.

Keywords *: Lead (Pb), Famer's Blood, AAS (Atomic Absorption Spectrophotometry), the blood of farmer's in Kabanjahe*

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