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EVALUATION OF LEAD POLLUTION IN BUCHAREST. PART II: THEORETICAL ASPECTS OF RISK MANAGEMENT STRATEGY FOR IMPACT OF LEAD ON HUMAN HEALTH

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Abstract

Despite its well known toxic effects, lead continues to be a part of modern life. Lead concentrations in the environment have increased steadily throughout history, with a huge increase when lead became a common additive to paint and gasoline. Although the use of lead in gasoline and most paint has been banned in many countries, there are still many ways for lead to be released on the environment. The effects of lead on human health have been the subject of significant international examination over the last decade. Exposure occurs from lead presence in air, water, soil, food, paint and other materials. Lead is easily absorbed by the body via the primary routes of entry, inhalation and ingestion. About 10% to 20% of inhaled lead enters in the blood stream. Children are particularly susceptible to levels of lead in their blood due to exposure to lead (i.e. in children, ~50% of ingested lead is absorbed as compared to 8% to 10% for adults). These blood lead levels reflect current and past exposure from a number of sources and air emissions may only be a small part of the total exposure. The lead pollution in Bucharest is a significant issue that must be taking into consideration. Therefore, in order to prevent the lead pollution of Bucharest it is necessary to have an air pollution control and air quality management for develop a risk management strategy. As a result, in the present paper we have proposed a proper administration by assurance of a risk management strategy for impact of lead on environment and human health. Tree targets are necessary for this strategy: to provide a summary of information about sources of lead in the environment; to report the effects of lead on environment and direct effects on the human health; to make recommendations for chemical risk analysis. In this way, lead should be considered as a main concern that will continue to be carefully monitored and searched.

Key words: lead, risk management strategy, pollution sources, health effects

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