

Environmental and social responsibility for the 21st Century

Health and Environmental Research

Progress through knowledge

The International Lead Zinc Research Organization (ILZRO) was formed in 1958 as a non-profit making research foundation. It is funded and managed by the lead and zinc industries. Its purpose is to devise and implement research programmes which meet the collective research needs of the international industry. ILZRO's lead-related research and development programme covers a wide range of areas from health and environmental risk to product development.

ILZRO has had a key role in progressing the scientific understanding of environmental and health impacts on metals. New models have been developed and adopted for assessing risk and for standard setting, such as the Pb Biotic Ligand Model (BLM). This is a molecular system which will allow accurate predictions to be made of bioavailability of lead in water and the toxicity that will be exerted towards aquatic organisms. This will provide regulators and industry with a much more powerful tool for assessing the environmental impact of lead and ensure that water quality standards are set to provide appropriate protection.

The effects of lead towards soil organisms can differ widely in the 'real' environment from that demonstrated in laboratory experiments. Until recently, regulators had to rely on laboratory testing to come to an opinion about the safe levels of lead and other metals in an environment. Industry funded comparative studies which demonstrated the nature of the differences and allowed corrections to be applied to the laboratory data in order to ensure the protection of the 'real' environment. The results of the research are now being reviewed by governments for use in national legislation.

The effect of lead upon the intellectual development of children is of paramount concern to us all. ILZRO, through the sponsoring of research and conferences, has enhanced our understanding of impacts on the development of children.

ILZRO also continues to support various efforts to evaluate the impact of occupational exposure to lead in several other areas of health study.

Human exposure in the workplace remains a top priority for the industry. Independent researchers, funded by the lead industry, established that the amount of lead that can be passed into the body from dermal uptake (skin contact) is so tiny it cannot be detected and is considered negligible. This will enable regulators and industry to focus their risk management activities on more relevant routes of exposure. Other research has quantified the amount of lead which can be transferred through hand-to-mouth activity. Touching lead transfers only minute quantities to the hands but being able to measure the amount of lead on the hands helps to calculate the amount that could have been ingested and whether there is any potential risk.

Since 2000 the lead industry has sponsored around €3 million of independent research into the health and environmental impacts of lead.

