

## Lead Pb

### **1. General characterization**

Lead is a heavy metal, with silver-grey color and very high density. This metal is toxic to the human body, the intoxication being called saturnism.

By the degree of general pollution, lead is present everywhere, in air, water, soil and enters the body via digestive or respiratory system or through the skin.

The most dangerous penetration way is the respiratory one, because lead goes directly into the blood.

### **2. Air pollutant effects on human health**

- lead is particularly toxic, affecting the nervous system of human being;
- anemia and other diseases of the blood;
- kidney diseases;
- damage on reproductive system of men (impotence and sterility) and women (low fertility, abnormal menstrual cycles, miscarriages).

### **3. Air pollutant effects on ecosystems**

- lead can remain in the environment for an indefinite time under the form of dust;
- lead from the petrol contributes to the atmospheric pollution, especially of urban zones;
- lead exposed plants absorb the dust with metal content at the leaves level;
- impact on the fauna.

**4. Limit value** according to Law no. 104 from 15/06/2011 on ambient air quality (Romania), Clean Air Law and Ordinance no.12 from 15/07/2010 (Bulgaria).

Lead	Annual limit value for the protection of human health	0.5 $\mu\text{g}/\text{m}^3$
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