

**ASSESSMENT OF RISKS TO HEALTH AND THE ENVIRONMENT
FROM Cd IN FERTILIZERS FOR GREECE**

J. MASTRANTONI, G. SPYROPOULOS, E. TSANI-BAZACA

General Chemical State Laboratory, An. Tsocha 16, Athens 11521.

ABSTRACT

A methodology for the Risk Assessment of Cd, coming from fertilizers, in various environmental compartments, is presented. The work is based on the Commission Regulation 1488/94/EEC and the corresponding Technical Guidance Document published by the Commission in 1996. Available and additionally produced data were used. Taking into account the concentration of Cd in different regions, soil density, plough depth, soil pH, soil organic matter content, and using transfer factors and algorithms giving the distribution coefficients of Cd in soil /soil water, Cd accumulation was determined over a period of 100 and 200 years. The dietary intake as dominant exposure pathway for humans was taken into account. The work was focussed on the exposure of the general population, and the need for Cd reduction measures considering the adverse effects associated with long term exposure to Cd, as a content in soil and thereof in plant based foods.