

**Summary of TNO study 2005  
(B&O-A R 2005/306)**

**“Environmental aspects of the use of lead sheet in the building industry”**

There are concerns about the suggested environmental problems in relation to the use of lead sheet in the building industry. The building industry is the main user of lead sheet which is used as flashings to prevent water penetrating the structure of the building. The second most important use is roofing and cladding.

TNO was therefore requested “to assess whether the lead compounds that run-off from exposed lead sheet, applied on buildings, lead to significant toxic effects in the natural environment.”

To be able to answer this question five main items are researched:

1. The main lead emission sources
2. The contribution of lead sheet to the total lead emissions
3. The lead concentrations in the environment
4. The environmental thresholds for lead
5. The risk of environmental effects from lead in the environment

The conclusions of the research are:

1. Based on the derived risk factors there is no environmental risk related to the anthropogenic emissions of lead.
2. As the use of lead sheet contributes less than 10% to the total anthropogenic Pb emissions, lead sheet can be excluded causing an environmental risk.
3. Conclusions 1. and 2. are still valid when it is assumed that all building roofs are disconnected from the sewer system and the runoff directly enters the environment.