

Nickel Institute Position Paper on October 2012 Ökotest Article on Nickel in Cookware

The Nickel Institute takes note of the article on nickel-containing stainless steel cooking pans which was published in German consumer magazine Ökotest (October 2012 issue). The article concludes that from some nickel containing stainless steel pots there might be nickel releases during use. As the industry association representing nickel producers worldwide, the Nickel Institute wishes to express its views on the safe use of nickel in cookware and to respond to the conclusions drawn in the article.

The Nickel Institute supports the framework set out in the Council of Europe (CoE) *Guidelines on Metals and Alloys used as food contact materials* dated 13 February 2002 ([hyperlink](#)) and is assisting with the current revision of the Guidelines. Nickel is used in stainless steel cookware applications due to its hygiene and other properties, such as durability, cleanability and mechanical resistance.

In its assessment on nickel (page 43 and following), the CoE Guidelines conclude that “The migration of nickel to foodstuffs should be as low as reasonably achievable and no more than: 0.1 mg/kg as a general limit of migration into foodstuffs [and 0.05 mg/l from electric kettles]. In the case of stainless steel, these values can safely be reached if, before initial cooking (first use of new items), the food contact items are exposed to boiling water and the water is discarded.”

The Nickel Institute’s own data on acid-containing foods and stainless steel cookware shows that any increased nickel release disappears after the first cooking. Our findings also show that it is important to wash stainless steel pans before the first use.

Various tests and studies exist on this topic, showing that for stainless steel cookware in general, nickel releases disappear after the first use (e.g. Flint and Packirisamy [Systemic nickel: the contribution made by stainless steel cooking utensils](#)). As part of the current revision of the CoE Guidelines, a test protocol for determining compliance with specific release limits (SRLs) is under development and the results obtained from the third exposure are to be used.

The Ökotest test did not follow the draft revised CoE protocol in this respect as the pans were only washed out once before use. Furthermore, as the current version of the Council of Europe Guidelines on materials and articles intended to come into contact with foodstuffs does not specify a test protocol, it raises questions about the methodology applied by Ökotest.

There are clear guidelines on nickel release rates in the European Union and the Nickel Institute does not support the use of nickel-containing materials with higher specific nickel release rates than those proposed in the revision of the Council of Europe Guidelines and measured according to the proposed test protocol.

In its current revision, the CoE has decided to use the WHO TDI of 0.012 mg/kg body weight/day (0.7 mg/day), which is based on human data from nickel-sensitized individuals rather than that based on animal data. Nevertheless, we agree that even lower specific release rates than that proposed for the revised Guidelines might be of concern for a minority of individuals with hyper-

sensitivity to nickel. For such people who are hyper-sensitive to nickel, their diet is as, if not more, important as nickel is a naturally-occurring element found in different natural products such as chocolate, coffee or beans. Indeed, Flint and Pachirisamy found that *“The amount of nickel from the utensils in standard portions of various aggressive foodstuffs tested was less than that to be found in 1 square of a bitter-sweet chocolate bar.”*

As part of its stewardship programme, the Nickel Institute continues to communicate along the value chain as well as with consumers on the safe and appropriate use of nickel and nickel-containing products. The Nickel Institute has published in total eleven advisory notes covering products, including cookware, jewellery, body piercings, mobile phones or musical instruments. These advisory notes can be downloaded free from the [Nickel Institute website](http://www.nickelinstitute.org).

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