Arvedi AST

Presence of cobalt in our products

Cobalt is not added intentionally in our products. Stainless steel could contain an amount of cobalt due to its unavoidable presence in raw materials. The amount of cobalt generally does not exceed 0.5% and its presence, over the years, has not been associated with any health risk.

Cobalt has a harmonized classification as Carcinogen Category 1B, Mutagenic Category 2, Skin Sensitizer 1, Respiratory Sensitizer 1, Reprotoixic 1B and Aquatic Chronic 4. The classification includes a threshold value, a so-called 'Generic Concentration Limit' (GCL), of 0.1%.

Although cobalt can be present above the threshold value in stainless steel, it is embedded in the matrix of the alloy. As a result, stainless releases negligible amounts of cobalt and it does not become bio-available.

The likelihood of being exposed to cobalt is far less than the pure metal thanks to the alloying effect. In other words when cobalt is in the form of stainless steel it does not necessarily become available to the organism.

In order to demonstrate this effect, EUROFER, the European Steel Association, continues its efforts, together with other industry partners, to complete the adoption process of bio-elution as an internationally standardized methodology to recognize the alloying effect in stainless steel and other alloys. Bio-elution methodology, is an in vitro methodology to preventing the necessity of in vivo testing.

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