Active (free) metal ions or complexes in interaction with an organism

Active (free) metal ions or complexes in interaction with cells

Active (free) metal ion concentration of a certain oxidation state

Active (free) metal ions

Total metal concentration

In-vitro toxicity

Bioavailability - released active chromium

Bioaccessibility - total concentration of released metals

This study

No induced cytotoxicity

DNA damage - 316L-fine

Hemolysis - Cr₂O₃ small sized particles

Cr(III) (no Cr(VI))
Strong and weak organic complexes in ALF

FeCr, FeSiCr, dust, 316L, Cr.

coharse-sized particles: < 20µg/L total Cr
< 55 µg/L total Fe
< 0.5 µg/L total Ni

fine-sized particles: < 80 µg/L total Cr
< 1800 µg/L total Fe
< 45 µg/L total Ni