



MetalZorb[®] Order of Affinity

The order of affinity of the polymer for metals is influenced by solution parameters such as pH, temperature, and total ionic content. The following affinity sequence for several representative ions is generally expected.

Au ⁺⁺⁺	Gold	Cr ⁺⁺⁺	Chromium
UO ₄ ⁻²	Uranium	CrO ₄ ⁻²	Chromium
Cd ⁺⁺	Cadmium	Ni ⁺⁺	Nickel
Hg ⁺⁺	Mercury	AsO ₄ ⁻³	Arsenic
Au(CN) ⁻²	Gold	Co ⁺⁺	Cobalt
Cu ⁺⁺	Copper	Mn ⁺⁺	Manganese
Pb ⁺⁺	Lead	Fe ⁺⁺⁺	Iron
VO ₄ ⁻³	Vanadium	Ag ⁺	Silver
MoO ₄ ⁻²	Molybdenum	Al ⁺⁺⁺	Aluminum
Zn ⁺⁺	Zinc	Mg ⁺⁺	Magnesium

The high selectivity for heavy metals and the low selectivity for alkali and alkaline earth metals (Na⁺, Mg⁺⁺, and Ca⁺⁺) are especially useful for the treatment of contaminated natural waters which may contain high concentrations of these innocuous chemical species. These monovalent and divalent cations do not interfere with or compete with absorption of heavy metals, therefore allowing for maximum removal of heavy metals from contaminated waters.