## **Disposal of Solutions Containing Toxic Cations**

Reference: Handbook of Chemistry and Physics, CRC Press, 73rd Edition, pp. 16-8,9 (1992-93)

Compiled by: Jim Hebden, Kamloops Secondary, April 2003

High Toxic Hazard	Precipitant
Ba <sup>2+</sup>	SO <sub>4</sub> <sup>2-</sup>
Cr <sup>3+</sup>	OH⁻
Co <sup>2+</sup>	OH⁻
Pb <sup>2+</sup>	OH⁻
Mn <sup>2+</sup>	OH⁻
$Hg_{2}^{2+}, Hg^{2+}$	OH⁻
Ni <sup>2+</sup>	OH⁻
Ag⁺	Cl⁻

## Low Toxic Hazard Cations Which Can Be Flushed Down A Sink With Running Water

The following cations pose negligible environmental risk in the quantities used in high school labs. The cations in the list can be precipitated with hydroxide ions if, in the teacher's opinion, the amount of material is too large to be flushed down the drain. Those marked with an asterisk (\*) will not precipitate and must just be flushed.

Al <sup>3+</sup>	Fe <sup>3+</sup>	Na⁺ (*) Sr <sup>2+</sup>
Ca <sup>2+</sup> Cu <sup>2+</sup> Fe <sup>2+</sup>	Li <sup>+</sup> (*) Mg <sup>2+</sup> K <sup>+</sup> (*)	
Cu <sup>2+</sup>	Mg <sup>2+</sup>	Sn <sup>2+</sup>
Fe <sup>2+</sup>	K <sup>+</sup> (*)	Zn <sup>2+</sup>