

# IC Application Note No. S-191

**Title:** Chloride, nitrite and sulfate in a used zinc bath containing cooling lubricants

**Summary:** Determination of chloride, nitrite and sulfate in a used zinc bath using anion chromatography with conductivity detection after chemical suppression.

**Sample:** Used zinc plating bath containing cooling lubricants

**Sample Preparation:** Dilution 1 : 50 with ultrapure water and subsequent injection through IC-RP cartridge to remove the cooling lubricant

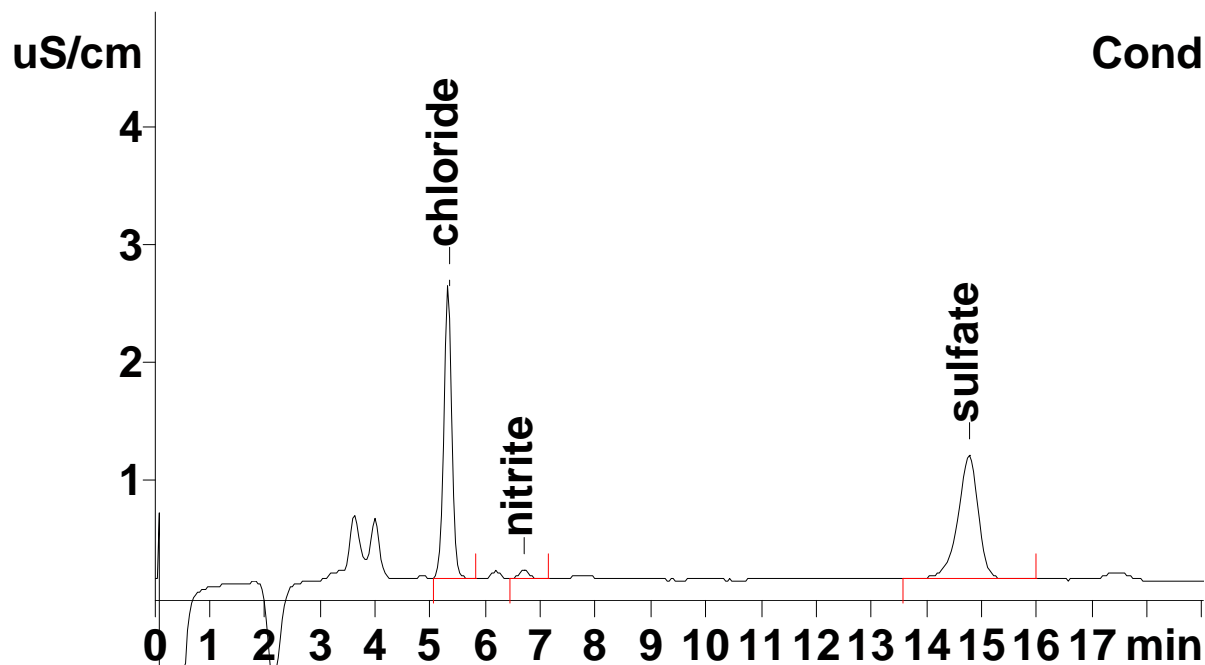
**Column:** 6.1006.520 Metrosep A Supp 5 – 150

**Eluent:** 3.2 mmol/L sodium carbonate  
1.0 mmol/L sodium hydrogencarbonate

**Suppressor:** Metrohm Suppressor Module (MSM, 50 mmol/L sulfuric acid)

**Flow:** 0.8 mL/min

**Injection Volume:** 20  $\mu$ L



<b>Results:</b>	Chloride mg/L	Nitrite mg/L	Sulfate mg/L
	112.0	8.02	195.0