

IC Application Note No. S-156

Title: Chloride, nitrite, nitrate and sulfate in cooling lubricants (conductivity and UV detection)

Summary: Determination of chloride, nitrite, nitrate and sulfate in cooling lubricants using anion chromatography with conductivity and UV detection (230 nm) after chemical suppression and inline sample preparation by dialysis.

Sample: Cooling lubricant

Sample Preparation: Dilution 1:20, with ultrapure water, direct injection using 754 Dialysis Unit

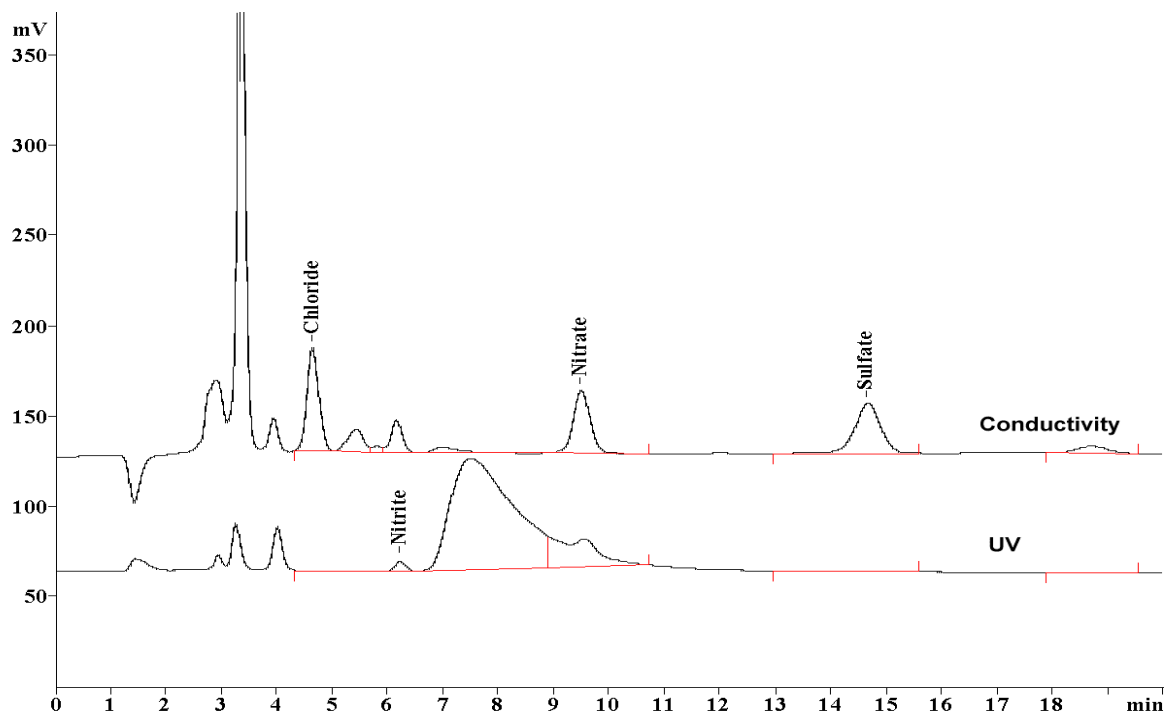
Column: 6.1006.100 Metrosep Dual 2 (with 6.1011.020 RP Guard)

Eluent: 2.0 mmol/L sodium hydrogen carbonate
1.3 mmol/L sodium carbonate

Suppressor: Metrohm Suppressor Module (MSM, 50 mmol/L H₂SO₄)

Flow: 0.8 mL/min

Injection Volume: 20 µL



Results:	Chloride mg/L	Nitrite mg/L	Nitrate mg/L	Sulfate mg/L
	36.5	13.7	52.6	47.7