

IC Application Note No. S-128

Title: Chlorate, nitrate and perchlorate in firecracker powder

Summary: Determination of chlorate, nitrate and perchlorate in firecracker powder using anion chromatography with conductivity detection after chemical suppression.

Sample: Firecracker powder

Sample Preparation: 1 g of sample suspended in ultrapure water, dilution 1 : 20, injection after filtration through 0.45 µm

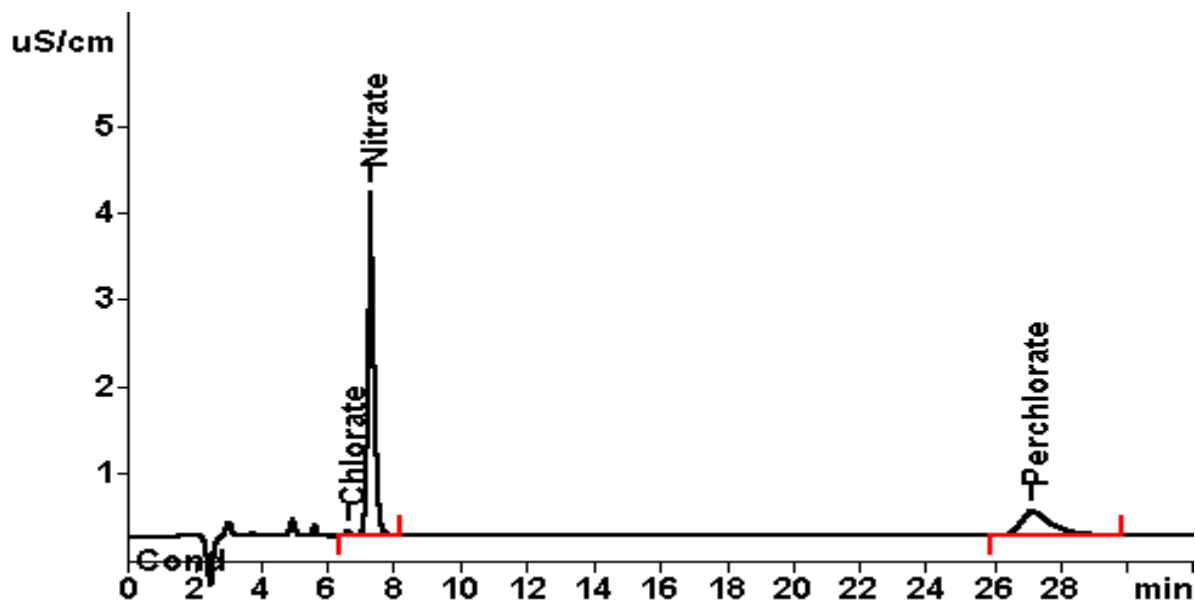
Column: 6.1006.430 Metrosep A SUPP 4-250

Eluent: 1.9 mmol/L sodium hydrogencarbonate, 1.9 mmol/L sodium carbonate, 5% acetonitrile

Suppressor: MSM (50 mmol/L H₂SO₄)

Flow: 1.0 mL/min

Injection Volume: 20 µL



Results:	Chlorate mg/g	Nitrate mg/g	Perchlorate mg/g
	1.718	66.18	43.61