

# IC Application Note No. M-2

**Title:** Chlorite, chlorate and perchlorate in explosion residue applying IC/MS

**Summary:** Determination of chlorite, chlorate and perchlorate in explosion residue applying anion chromatography with conductivity and MS detection in tandem.

**Sample:** Forensic explosion residue

**Sample Preparation:** Direct injection after ultrafiltration

**Column:** 6.1006.510 Metrosep A Supp 5 – 100

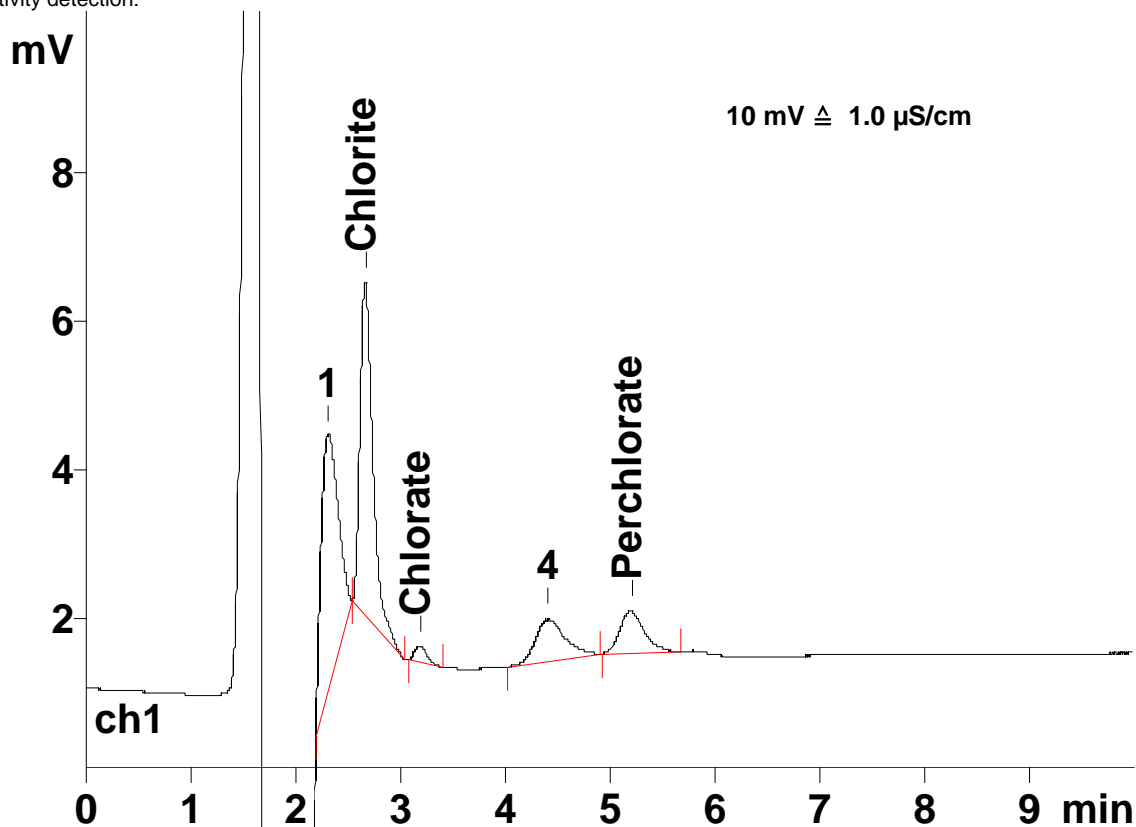
**Eluent:** 25 mmol/L lithium hydroxide  
25% acetonitrile

**Suppressor:** Metrohm Suppressor Module (MSM, 100 mmol/L sulfuric acid, 2% acetonitrile)

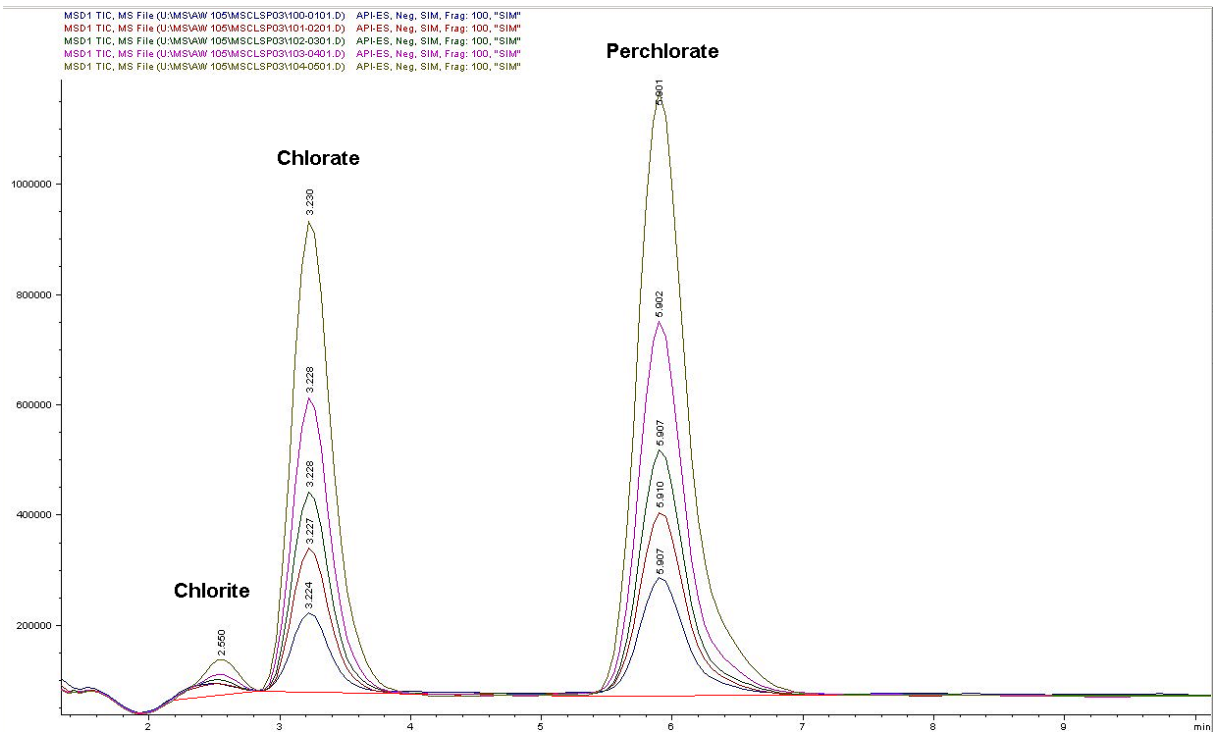
**Flow:** 0.7 mL/min

**Injection Volume:** 100  $\mu$ L

Conductivity detection:



MS detection: Overlay of the calibration runs



<b>Results:</b>	Chlorite (1) µg/L		Chlorate (2) µg/L			Perchlorate (3) µg/L		
	IC	m/z = 67	IC	m/z = 83	m/z = 85	IC	m/z = 99	m/z = 101
	<b>4.68</b>	<b>4.81</b>	<b>1.08</b>	<b>1.10</b>	<b>1.10</b>	<b>8.17</b>	<b>8.14</b>	<b>8.13</b>