



McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road • Pittsburg • CA 94565-1701  
 Toll Free Telephone: 877-252-9262 • Fax: 925-252-9269  
 Web: www.mccampbell.com • E-mail: main@mccampbell.com

COMPARISON OF ANION METHODS

Analyte	CAS No.	EPA 218.6 / 7199	EPA 300.0 / 300.1 / 9056	EPA 300.1	EPA 300.0 / 300.1 / 8330m	EPA 300.0 / 300.1 / 8330m	EPA 314.0 / 9058	EPA 317.0
		Hexachrome	Common Anions	Dis-infection Byproducts	Uncommon Anions	Organic Acid Suite	Perchlorate	Bromate
Acetate (CH <sub>3</sub> COO <sup>-</sup> )	64-19-7 <sup>#</sup>					● <sup>Z</sup>		
Bromide (Br <sup>-</sup> )	24959-67-9		●	●				
Bromate (BrO <sub>3</sub> <sup>-</sup> )	15541-45-4			●				●
Butyrate (C <sub>4</sub> H <sub>7</sub> O <sub>2</sub> <sup>-</sup> )	107-92-6 <sup>§</sup>					● <sup>Z</sup>		
Chloride (Cl <sup>-</sup> )	16887-00-6		●					
Chlorate (ClO <sub>3</sub> <sup>-</sup> )	14866-68-3			●				
Chlorite (ClO <sub>2</sub> <sup>-</sup> )	7758-19-2 <sup>@</sup>			●				
Citrate(C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> <sup>-3</sup> )	77-92-9 <sup>#</sup>				● <sup>Z</sup>			
Fluoride (F <sup>-</sup> )	16984-48-8		●					
Formate (HCOO <sup>-</sup> )	64-18-6 <sup>#</sup>				● <sup>Z</sup>			
Glycolate (C <sub>2</sub> H <sub>2</sub> O <sub>3</sub> <sup>-</sup> )	79-14-1 <sup>#</sup>				● <sup>Z</sup>			
Hexachrome (CrO <sub>4</sub> <sup>-2</sup> ) as Cr	11104-59-9	●						
Iodate (IO <sub>3</sub> <sup>-</sup> )	7681-55-2 <sup>@</sup>				● <sup>Z</sup>			
Iodide (I <sup>-</sup> )	20461-54-5				● <sup>Z</sup>			
Lactate (C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> <sup>-</sup> )	50-21-5 <sup>#</sup>					● <sup>Z</sup>		
Malate (C <sub>4</sub> H <sub>4</sub> O <sub>5</sub> <sup>-2</sup> )	6915-15-7 <sup>#</sup>				● <sup>Z</sup>			
Maleate (C <sub>4</sub> H <sub>2</sub> O <sub>4</sub> <sup>-2</sup> )	110-16-7 <sup>#</sup>				● <sup>Z</sup>			
Nitrate (NO <sub>3</sub> <sup>-</sup> ) as N	14797-55-8		●					
Nitritotriacetate (NTA) [N(CH <sub>2</sub> COO) <sub>3</sub> <sup>-3</sup> ]	139-13-9 <sup>#</sup>				● <sup>Z</sup>			
Nitrite (NO <sub>2</sub> <sup>-</sup> ) as N	14797-65-0		●					
Oxalate (C <sub>2</sub> O <sub>4</sub> <sup>-2</sup> )	144-62-7 <sup>#</sup>				● <sup>Z</sup>			
Perchlorate (ClO <sub>4</sub> <sup>-</sup> )	14797-73-0						●	
Phosphate (PO <sub>4</sub> <sup>-3</sup> ) as P	10049-21-5 <sup>@</sup>		●					
Propionate (C <sub>3</sub> H <sub>5</sub> O <sub>2</sub> <sup>-1</sup> )	79-09-4 <sup>#</sup>					● <sup>Z</sup>		
Pyruvate (C <sub>3</sub> H <sub>3</sub> O <sub>3</sub> <sup>-</sup> )	127-17-3 <sup>§</sup>					● <sup>Z</sup>		
Succinate (C <sub>4</sub> H <sub>4</sub> O <sub>4</sub> <sup>-2</sup> )	110-15-6 <sup>#</sup>				● <sup>Z</sup>			
Sulfate (SO <sub>4</sub> <sup>-2</sup> )	14808-79-8		●					
Sulfide (S <sup>-2</sup> )	18496-25-8				● <sup>Z</sup>			
Sulfite (SO <sub>3</sub> <sup>-</sup> )	14265-45-3				● <sup>Z</sup>			
Tartarate (C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> <sup>-2</sup> )	87-69-4 <sup>#</sup>				● <sup>Z</sup>			
Thiocyanate (SCN <sup>-</sup> )	463-56-9 <sup>#</sup>				● <sup>Z</sup>			
Thiosulfate (S <sub>2</sub> O <sub>3</sub> <sup>-2</sup> )	10102-17-7 <sup>@</sup>				● <sup>Z</sup>			

Anions are analyzed as individual analytes rather than as groups because variable concentrations within a sample. For example Cl<sup>-</sup> by EPA 300.0 should be requested rather just 300.0. Upon request, groups such as the Disinfection Byproducts, some combinations of organic acids, or even the common anions can be analyzed at negotiated pricing.

<sup>#</sup> CAS numbers for the acid form of the listed anion.

<sup>@</sup> CAS number for the sodium form of the listed anion.

● = Formal EPA method Analyte.

●<sup>Z</sup> = Compound not present in formal method target list