

# Sulfite, Zinc

## Sulfite

Sulfite is rarely found in natural waters because it oxidizes quickly and turns into sulfate.

However, sulfite is commonly used in industry, in particular, in the food sector due to its preservative properties.

Sulfite is also utilized in water heating systems as an oxygen scavenger.

High concentrations of sulfite however help lower the pH value of a solution, hence facilitating corrosion.

Sulfite is also monitored in environmental analysis. Sulfite is toxic to aquatic life. Its ability to eliminate oxygen from water damages the ecologic equilibrium of rivers, ponds and lakes.

## Zinc

Even though zinc is nontoxic to human beings, concentrations higher than 5 mg/L (ppm) can cause a bitter, astringent taste.

This level of zinc can result in a milky color in alkaline water and is irritant to the human digestive system.

Zinc in low quantities is a beneficial and necessary element for body growth.

Zinc is normally introduced into drinking water through industrial effluents. In addition to drinking water, zinc is measured in surface finishing, boilers and cooling towers, water conditioning and effluent waters.



HI 3822 - Sulfite

Parameter	Code	Method	Range*	Smallest Increment	Chemical Method	Number of Tests	Weight
Sulfite (as Na <sub>2</sub> SO <sub>3</sub> )	HI 3822	Titration	0.0-20.0 mg/L	0.2 mg/L	Iodometric	approx. 110	910 g
			0-200 mg/L	2 mg/L			
Zinc (as Zn)	HI 3854	Colorimetric	0.0-3.0 mg/L	0.6 mg/L	Zincon	100	250 g
	HI 38076	Checker disc	0.0-4.0 mg/L	0.1 mg/L	Zincon	100	647 g
			0.0-20.0 mg/L	0.4 mg/L			

\* 1 mg/L = 1 ppm

For spare reagents, see section V. For accessories, see section U.