

Iodine, Iron, Manganese



HI 3832 - Iodine



HI 3834 - Iron

Iodine

Iodine is used as an alternative to chlorine and bromine in drinking water and swimming pools.

Pool water treated with iodine does not irritate the human eye.

Iron

Iron concentration in natural water is typically below 1 mg/L (ppm), but the level can be much higher due to industrial discharges. Water containing iron is not dangerous to health, but it has a strong taste and can stain.

HANNA instruments® test kit allows you to determine the total concentration of iron as both Fe²⁺ and Fe³⁺ ionic status.

Manganese

Manganese is not present in natural waters but it is found in various salts and minerals, frequently associated with iron compounds.

Manganese salts are used as fertilizer additives, in ferroalloys (in steel manufacture), in non-ferrous alloys as it improves their corrosion resistance and hardness.

Manganese is not considered to be toxic to man and aquatic life and it is present as a trace nutrient, both in food and water. Nonetheless manganese has been limited in drinking water since it causes tenacious stains to laundry and alters taste.

Manganese is commonly found in domestic wastewater and industrial effluents.

Parameter	Code	Method	Range*	Smallest Increment	Chemical Method	Number of Tests	Weight
Iodine (as I ₂)	HI 3832	Colorimetric	0.0-2.5 mg/L	0.5 mg/L	DPD	approx. 50	180 g
	HI 3879	Colorimetric	0-5 mg/L	1 mg/L	DPD	100	143 g
Iron (Fe ²⁺ & Fe ³⁺)	HI 3834	Colorimetric	0-5 mg/L	1 mg/L	Phenanthroline	50	142.5 g
	HI 38039	Checker disc	0.00-1.00 mg/L	0.02 mg/L	Phenanthroline	100	436 g
	HI 38040	Checker disc	0.0-5.0 mg/L	0.1 mg/L	Phenanthroline	100	427 g
	HI 38041	Checker disc	0.0-10.0 mg/L	0.2 mg/L	Phenanthroline	100	980 g
Iron and Total Hardness	HI 3889	Colorimetric	Fe: 0-5 mg/L	Fe: 1 mg/L	Phenanthroline	50	260 g
		Titration	40-500 mg/L	20 mg/L	EDTA	approx. 50	
Manganese	HI 38042	Checker disc	0.0-3.0 mg/L	0.2 mg/L	Sodium Periodate	100	560 g
	HI 38072	Checker disc	0.0-10.0 mg/L	0.5 mg/L	Sodium Periodate	100	1100 g

* 1 mg/L = 1 ppm

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