

Hydrazine, Hydrogen Peroxide, Hydroxide, Hypochlorite

Hydrazine

Hydrazine is a liquid chemical substance used in high pressure heating plants due to its property as an oxygen inhibitor. It reacts with dissolved oxygen and has the advantage over sulfite treatments in that it does not produce solid waste in the process. Hydrazine is added to avoid scaling and corrosion and to control the growth of bacteria. High concentrations can create a reaction with ammonia resulting in damaged metals. Hydrazine is also known for its toxicity.

Hydrogen Peroxide

When used as a disinfectant or a bleaching agent, hydrogen peroxide can be found in water treatment, textile, pulp and paper industries.

HI 3844 determines hydrogen peroxide concentrations in water up to 10 mg/L (ppm) and it isn't affected by the presence of stabilizing substances.

Hydroxide

Hydroxide ions found in natural waters may indicate artificial contamination. Hydroxide ions may also be a measure of the corrosiveness of water on materials subject to attack by basic media. In copper electrolysis plating, hydroxide ions react with formaldehyde to reduce copper.

Hypochlorite

Sodium hypochlorite is used as a bleaching agent in paper and textile industries and as a disinfectant in drinking water and swimming pools.

The most commonly used solution contains 10-15% chlorine (100-150 mg/L) but it is very volatile and is affected by temperature, light, pH and heavy metals.



HI 3839 - Hydroxide

Parameter	Code	Method	Range*	Smallest Increment	Chemical Method	Number of Tests	Weight
Hydrazine (as N_2H_4)	HI 3849	Checker disc	0.00-1.00 mg/L	0.02 mg/L	p-Dimethylamino-benzaldehyde	100	860 g
Hydrogen Peroxide (as H_2O_2)	HI 3844	Titration	0.00-2.00 mg/L 0.0-10.0 mg/L	0.25 mg/L 1.0 mg/L	Iodometric	approx. 100	450 g
Hydroxide (as OH^-)	HI 3839	Titration	0.00-1.00 g/L 0.0-10.0 g/L	0.01 g/L 0.1 g/L	Phenolphthalein	approx. 110	460 g
Hypochlorite (as Cl_2)	HI 3843	Titration	50-150 g/L	5 g/L (0.5%)	Iodometric	approx. 100	485 g

* 1 mg/L = 1 ppm

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