

Cyanide, Cyanuric Acid



HI 3855 Cyanide

Cyanides can both occur naturally or be man-made and many are powerful and fast-acting poisons. Hydrogen cyanide (HCN), which is a gas, and the simple cyanide salts (sodium cyanide and potassium cyanide) are common examples of cyanide compounds. Certain bacteria, fungi, and algae can produce cyanide, and cyanide is found in a number of foods and plants. In certain plant foods, including almonds, millet sprouts, lima beans, soy, spinach, bamboo shoots, and cassava roots (which are a major source of food in tropical countries), cyanides occur naturally as part of sugars or other naturally-occurring compounds.

Many of the cyanides in soil and water come from industrial processes. The major sources of cyanides in water are discharges from some metal mining processes, organic chemical industries, iron and steel plants or manufacturers, and publicly owned wastewater treatment facilities. Other cyanide sources include vehicle exhaust, releases from certain chemical industries, burning of municipal waste, and use of cyanide-containing pesticides. Much smaller amounts of cyanide may enter water through storm water runoff where road salts are used that contains cyanide.

Cyanide in landfills can contaminate underground water. Hydrogen cyanide, sodium cyanide, and potassium cyanide are the forms of cyanide most likely to be in the environment as a result of industrial activities. Hydrogen cyanide is a colorless gas with a faint, bitter, almond-like odor.

Cyanuric acid is marketed as a chlorine stabilizer for swimming pools. It forms a weak bond with free chlorine in the pool water, protecting it from the sun's ultraviolet rays to reduce chlorine loss. Properly managed, cyanuric acid has been shown to reduce the amount of chlorine needed to maintain the minimum chlorine residual in an outdoor pool. In a small pool with a moderate bather load, cyanuric acid can significantly reduce the cost for chemical disinfection. The recommended range for cyanuric acid is 30-80 ppm.

HI 3855 Cyanide Test Kit

Cyanide refers to all of the CN groups in cyanide-compounds that can be determined as the cyanide ion CN^- . In most natural waters the molecular HCN form predominates. In solutions of metal cyanides, the CN group may also be present as a complex of varying stability. Cyanides are extensively used for extraction of silver/gold ores, metal-cleaning and electroplating baths, coke ovens and other chemical processes. There are mainly two chemical treatments to remove cyanides from waste-waters: one is chlorination and the other is the alkaline method.

Cyanides react with the pyridine-pyrazolone reagent to form a blue complex in neutral buffered solution. The absorbance of this colored product is proportional to the concentration of cyanide present in the aqueous sample.

HI 3851 Cyanuric Acid Test Kit

Cyanuric acid (CYS) is widely applied in swimming pools to slow down the decomposition of chlorine. In outside pool areas, this process is accelerated by the effect of ultraviolet rays. With a correct dose, it can save up to 80% of normal chlorine consumption in pools during peak sunny months.

Cyanuric acid is also used in chlorinated bleaches and selective herbicides.

The reaction between cyanuric acid and the reagent causes a white suspension in the sample. The turbidity is proportional to the concentration of cyanuric acid.

ORDERING INFORMATION

HI 3855 test kit comes with 17 g cyanide reagent A, 100 packets cyanide reagent B, 100 packets cyanide reagent C, checker disc, glass vials with caps, 3 mL plastic pipette and spoon.

HI 3851 test kit comes with 100 packets HI 93722-0 reagent, 25 mL glass test tube, 50 mL plastic vessel, 3 mL plastic pipette and spoon.

ACCESSORIES

HI 3855

HI 3855-100 Spare reagent for 100 tests

HI 3851

HI 3851-100 Spare reagent for 100 tests

METHOD	RANGE	SMALLEST INCREMENT	CHEMICAL METHOD	# TESTS	WEIGHT
HI 3855 Cyanide (as CN^-)					
checker disc	0.00-0.30 mg/L (ppm)	0.01 mg/L (ppm)	pyridine-pyrazolone	100	580 g
HI 3851 Cyanuric Acid					
turbidimetric	10-100 mg/L (ppm)	5 mg/L (ppm)	turbidimetric	100	195 g

Contact us:

www.hannainst.com Chainaris Phuket Engineering Co., Ltd.

63/13 Moo.2, T.Vichit, A.Muang Phuket 83000

Tel: 076-513100-3 Fax: 076-513105

Line: @chainaris, @chainarisshop

