

# Hydrazine Portable Photometer



- CAL CHECK™
- User calibration
- Certified calibration and verification standards
- BEPS (Battery Error Prevention System)
- TIMER function
- Auto shut-off
- GLP Features

Hydrazine is a liquid chemical substance normally used in high pressure heating plants because of its properties as an oxygen inhibitor. It is added to avoid scaling and corrosion in the plant itself. Hydrazine reacts with dissolved oxygen to yield nitrogen and water, so that hydrazine has the advantage over the sulfite treatment because it does not produce any dissolved solids in the boiled water. Hydrazine is also used in tanks because it controls the growth of bacteria. Other hydrazine uses include:

- oxygen scavenger for water boiler feed and heating systems to prevent corrosion damage
- energy source in fuel elements
- reducing agent for the recovery of metals (copper, nickel and others)
- intermediate in insecticides, herbicides, explosives, plant growth regulators, pharmaceuticals, dyes, flame-retardants, polymerization catalysts and other chemical products
- component of photo development

The HI 96704 meter measures the hydrazine content in water samples. The method is an adaptation of the ASTM Manual of Water and Environmental Technology, method D1385-88 for natural and treated water.

Hydrazine is an inorganic chemical compound represented by the formula  $N_2H_4$ . It is a colorless, flammable liquid with an ammonia-like odor and is derived from the same industrial chemistry processes that manufacture ammonia. However, hydrazine has physical properties that are closer to those of water.

Hydrazine is highly toxic and dangerously unstable, and is usually handled while in solution for safety reasons.

SPECIFICATIONS	HI 96704 Hydrazine
Range	0 to 400 µg/L (ppb)
Resolution	1 µg/L (ppb)
Accuracy @ 25°C (77°F)	±3% of full scale
Light Source	light emitting diode
Light Detector	silicon photocell with narrow band interference filter @ 466 nm
Power Supply	9V battery
Auto-off	after ten minutes of non-use in measurement mode; after one hour of non-use in calibration mode; with last reading reminder
Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing
Dimensions	192 x 104 x 69 mm (7.6 x 4.1 x 2.7")
Weight	360 g (12.7 oz.)
Method	adaptation of the ASTM Manual of Water and Environmental Technology, method D1385-88 for natural and treated water

The reagent is in liquid form and is supplied in dropper bottles. The amount of reagent is precisely dosed to ensure the maximum repeatability.

For a complete list of Reagents, see Reagents Section 18.

## ORDERING INFORMATION

**HI 96704** is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

CAL CHECK™ standards and testing reagents sold separately

**HI 96704C** includes HI 96704 photometer, sample cuvettes (2) with caps, 9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

CAL CHECK™ standards and testing reagents sold separately

## REAGENTS AND STANDARDS

- HI 96704-11** CAL CHECK™ standard cuvettes
- HI 93704-01** Reagents for 100 tests
- HI 93704-03** Reagents for 300 tests