

Instruction Manual

HI 3849 Hydrazine Test Kit



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Dear Customer,

Thank you for choosing a Hanna Product.

Please read the instructions carefully before using the chemical test kit. It will provide you with the necessary information for correct use of the kit.

Remove the chemical test kit from the packing material and examine it carefully to make sure that no damage has occurred during shipping. If there is any noticeable damage, notify your Dealer or the nearest Hanna office immediately.

Each kit is supplied with:

- HI 3849-0 Hydrazine Reagent, 2 bottles with dropper (50 mL);
- Deionized Water, 1 bottle (500 mL);
- 1 checker disc;
- 2 glass vials with caps;
- 1 plastic pipette (3 mL).

Note: Any damaged or defective item must be returned in its original packing materials.

ISTR3849 10/99 PRINTED IN ITALY

SPECIFICATIONS

Range	0 to 1.00 mg/L (ppm) as Hydrazine
Smallest Increment	0.02 mg/L (ppm) Hydrazine
Analysis Method	Colorimetric
Sample Size	5 mL
Number of Tests	100
Case Dimensions	195x183x72 mm (7.7x7.2x2.8")
Shipping Weight	860 g (30.3 oz.)

SIGNIFICANCE AND USE

Hydrazine is an artificial chemical and it is not found in natural waters. It is extensively used as oxygen scavenger to inhibit corrosion in high pressure boiler feedwater and reactor cooling water: this reducing chemical 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 solid in the boiler water.

CAUTION: Hydrazine is thought to be a carcinogenic chemical.

Note: mg/L is equivalent to ppm (parts per million).

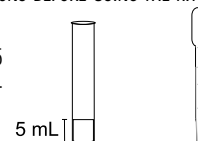
CHEMICAL REACTION

Hydrazine reacts with the reagent in acidic solution to form a yellow complex. The absorbance of this colored product is proportional to the concentration of hydrazine present in the aqueous sample.

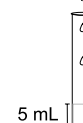
INSTRUCTIONS

READ THE ENTIRE INSTRUCTIONS BEFORE USING THE KIT

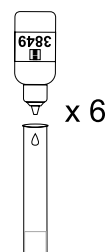
- Fill one glass vial with 5 mL of the deionized water, up to the mark.



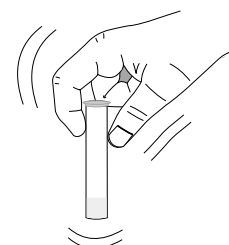
- Using the plastic pipette fill the other glass vial with 5 mL of sample, up to the mark.



- Add 6 drops of HI 3849-0 Hydrazine Reagent to the deionized water, replace the cap and swirl to mix. This is the blank.



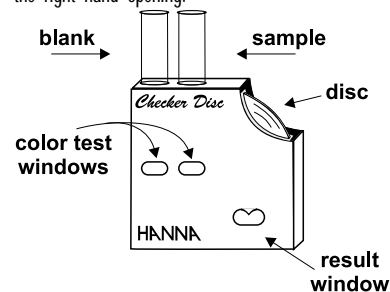
- Add 6 drops of HI 3849-0 Hydrazine Reagent to the sample, replace the cap and swirl to mix. This is the reacted sample.



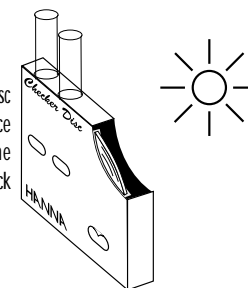
- Wait for 12 minutes to allow color to develop.



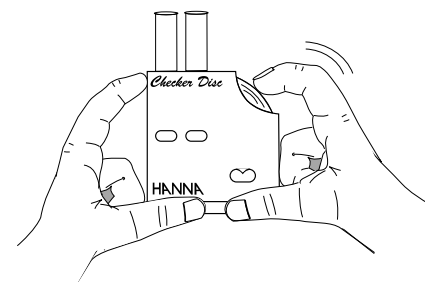
- Remove the caps, insert the blank into the left hand opening of the checker disc and the reacted sample into the right hand opening.



- Hold the checker disc so that a light source illuminates the samples from the back windows.



- Rotate the disc while looking at the color test windows and stop when you find the color match. Read the value in the result window and record it in mg/L (or ppm) of Hydrazine.



For best results: Intensely colored samples will make the color matching determination difficult and they should be adequately treated before performing the test. Suspended matter in large amounts should be removed by prior filtration.

Caution: Ultraviolet radiation may cause fading of colors. When not in use, keep the disc protected from light, in a cool and dry place.

REFERENCES

Adaptation of the ASTM Manual of Water and Environmental Technology method D1385-88 for Natural and Treated Water.

HEALTH AND SAFETY

The chemicals contained in this kit may be hazardous if improperly handled. Read Health and Safety Data Sheet before performing this test.