

## DC Water Test

### Hexavalent Chromium

Ultra Low and Low Ranges Wide Span  
(PN: 82001)



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*Manual*



### 1. Application

The DG Water Test PN: 82001 is a colorimetric water test kit designed to provide real-time indication and quantification of hexavalent chromium in water.

### 2. Components of the Test Kit

- a. 30 Sample Vials, PN: 82001-1030
- b. One Developing Solution Bottle, PN: 82001-2000
- c. 30 Disposable Pipettes, PN: 82001-3030
- d. One Color Comparator, PN: 82001-6000

### 3. Components of the Test Kit Refill

- a. 30 Sample Vials, PN: 82001-1030
- b. One Developing Solution Bottle, PN: 82001-2000
- c. 30 Disposable Pipettes, PN: 82001-3030

**To Reorder: PN: 82001-5000**

### 4. Specifications

#### 4.1. Overall Specification

##### A. Sample Vial

- a. Weight: 0.75g (0.027oz)
- b. Dimensions: 3.3cm (1.3in),  $\Phi$ : 10mm (0.4" in)
- c. Operating temperature: 4°C to 60°C (39°F to 140°F)
- d. Minimum detectable limit: 0.025ppm in 5 minutes
- e. Detection range with color comparator: 0.025 to 12ppm
- f. Color change: Colorless to pink or purple
- g. Storage temperature: 4°C to 25°C, (39°F to 77°F)
- h. Shelf life: 1 year

##### B. Developing Solution

- a. Weight: 9.g (0.32oz)
- b. Dimensions: 2.3cm (0.9in),  $\Phi$ : 18mm (0.69" in)

##### C. Color Comparator

- a. Weight: 28g (1oz)
- b. Dimensions: 10.9cm (4.3in) x 10.5cm (4.1in) x 0.7cm (0.3in)
- c. Range: 0.025ppm to 12ppm
- d. Increments (ppm): 0.025, 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1.0, 1.2, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10.0, 10.5, 11.0, 11.5, 12.0.

##### D. Disposable Pipette

- a. Weight: 0.75g (0.027oz)
- b. Dimensions: 15cm (6in),  $\Phi$ : 1.3cm (0.5" in)
- c. Capacity: 0.5ml

#### 4.2. Cross interferences

None known

### 5. Operating Instructions

- a. Use gloves and protective glasses when handling Hexavalent chromium.
- b. Ensure that packaging pouch is intact.
- c. Open packaging pouch by tearing off the top part from one of side notches.
- d. Remove one sample vial from packaging pouch.
- e. Open sample vial cap and add 0.4ml of water sample using the disposable pipette (Figure 1).
- f. Add three drops of developing solution to sample vial (Figure 2).
- g. Firmly close sample vial cap and shake (Figure 3).
- h. Wait 5 minutes with occasional shaking for complete color development

**NOTE: Reading the result before 5 minutes or waiting much longer than 5 minutes may lead to negative or positive results.**

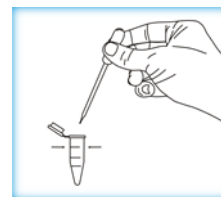


Figure 1

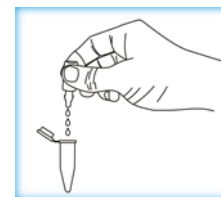


Figure 2



Figure 3

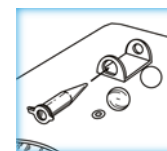


Figure 4

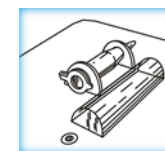


Figure 5

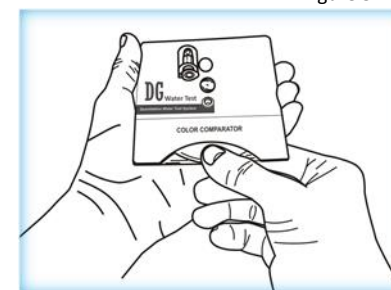


Figure 6

- i. Use the color comparator (Figure 6) to determine the concentration of hexavalent chromium in the water sample
  - Insert the sample vial into the vial holder as shown in Figures 4 and 5.
  - Turn the bottom color wheel to match colors. The color formed in the sample vial is directly proportional to the concentration of hexavalent chromium in the water sample.
  - To compensate for any dark substance or dirt in the water sample, turn the top gray scale wheel to achieve better color match.