

Method

Hexavalent chromium salts are used in numerous industrial processes. They are also used extensively as corrosion inhibitors in open and closed cooling water systems.

The Diphenylcarbazide Method

References: **APHA Standard Methods, 22nd ed., Method 3500-Cr B - 2009. ASTM D 1687-02, Chromium in Water, Test Method A.**

With the chromate test method, hexavalent chromium reacts with diphenylcarbazide under acid conditions to form a red-violet color. Results are expressed as ppm (mg/L) CrO₄.

Visual Kits

Range: 0-1 & 1-10 ppm
MDL: 0.05 ppm / Method: Diphenylcarbazide

	Cat#
CHEMets Kit	K-2810
CHEMets Refill, 30 ampoules	R-2810
Acidifier Solution Pack, six 10 mL bottles	A-2800 ¹
Low Range Comparator 0, 0.1, 0.2, 0.3, 0.4, 0.6, 0.8, 1.0 ppm	C-2801
High Range Comparator 1, 2, 3, 4, 5, 6, 7, 8, 10 ppm	C-2810
Kit comes in a plastic case and contains everything needed to perform 30 tests: Refill, Low and High Range Comparators, Acidifier Solution, 25 mL sample cup and instructions.	

Range: 0-30 & 30-300 ppm
MDL: 5 ppm / Method: Diphenylcarbazide

	Cat#
VACUettes Kit	K-2810D
VACUettes Refill, 30 ampoules	R-2810D
Acidifier Solution Pack, six 10 mL bottles	A-2800 ¹
Low Range Comparator 0, 5, 7.5, 10, 15, 20, 25, 30 ppm	C-2801D
High Range Comparator 30, 60, 90, 120, 150, 175, 200, 250, 300 ppm	C-2810D
Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Low and High Range Comparators, Acidifier Solution, dilutor snapper cup, sample cup top, micro test tube, and instructions.	

Range: 0-60 & 60-600 ppm
MDL: 10 ppm / Method: Diphenylcarbazide

	Cat#
VACUettes Kit	K-2810A
VACUettes Refill, 30 ampoules	R-2810A
Acidifier Solution Pack, six 10 mL bottles	A-2800 ¹
Low Range Comparator 0, 10, 15, 20, 30, 40, 50, 60 ppm	C-2801A
High Range Comparator 60, 120, 180, 240, 300, 350, 400, 500, 600 ppm	C-2810A
Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Low and High Range Comparators, Acidifier Solution, dilutor snapper cup, sample cup top, micro test tube and instructions.	

Range: 0-120 & 120-1200 ppm
MDL: 20 ppm / Method: Diphenylcarbazide

	Cat#
VACUettes Kit	K-2810B
VACUettes Refill, 30 ampoules	R-2810B
Acidifier Solution Pack, six 10 mL bottles	A-2800 ¹
Low Range Comparator 0, 20, 30, 40, 60, 80, 100, 120 ppm	C-2801B
High Range Comparator 120, 240, 360, 480, 600, 700, 800, 1000, 1200 ppm	C-2810B

Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Low and High Range Comparators, Acidifier Solution, dilutor snapper cup, sample cup top, micro test tube and instructions.

Range: 0-1200 & 1200-12,000 ppm
MDL: 200 ppm / Method: Diphenylcarbazide

	Cat#
VACUettes Kit	K-2810C
VACUettes Refill, 30 ampoules	R-2810C
Acidifier Solution Pack, six 10 mL bottles	A-2800 ¹
Low Range Comparator 0, 200, 300, 400, 600, 800, 1000, 1200 ppm	C-2801C
High Range Comparator 1200, 2400, 3600, 4800, 6000, 7000, 8000, 10,000, 12,000 ppm	C-2810C

Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Low and High Range Comparators, Acidifier Solution, dilutor snapper cup, sample cup top, micro test tube and instructions.

¹The accessory pack supplies enough solution to perform at least 200 tests.

Instrumental Kit

Multi-Analyte Photometers
V-2000 / V-3000 Series
(See page 14 for instrumental features)

Range: 0-3.50 ppm
Method: Diphenylcarbazide

	Cat#
Vacu-vials Kit	K-2803
Kit comes in a cardboard box and contains everything needed to perform 30 tests: thirty ampoules, Acidifier Solution, 25 mL sample cup, ampoule blank and instructions.	

Vacu-vials Kits require the use of a CHEMetrics Direct-Readout Photometer (photometers sold separately) or a spectrophotometer capable of accepting a 13 mm diameter round cell. See page 14 for details.

Kit Components common to Chromate

Description	Cat#
Sample Cup Pack, 25 mL (6 ea)	A-0013
Sample Cup Top Pack for 25 mL Cup (6 ea)	A-0014
Micro Test Tube Pack (10 ea)	A-0015
Dilutor Snapper Cup Pack (6 ea)	A-0018
Ampoule Blank Pack (5 ea)	A-0023

Instructions and MSDS(s) are posted on our website.

If no shelf-life is listed for a product, then the shelf-life is at least 2 years.