

Method

Phenol (hydroxybenzene) is the simplest of a group of similar organic chemicals, which includes cresols, xylenols, and catechols. Phenol itself is a common ingredient of disinfectants. In drinking water, low-level phenolic concentrations impart a foul taste and odor, especially upon chlorination. High phenol concentrations can indicate contamination from industrial effluents or waste discharge.

The 4-Aminoantipyrine Method

References: APHA Standard Methods, 14th ed., Method 510 C (1975). ASTM D 1783-01, Phenolic Compounds in Water, Test Method B. USEPA Methods for Chemical Analysis of Water and Wastes, Method 420.1 (1983).

CHEMetrics' phenols kits employ the well-established 4-aminoantipyrine (4-AAP) method. Phenolic compounds react with 4-AAP in alkaline solution in the presence of ferricyanide to produce a red reaction product. Phenol, meta-, and ortho-substituted phenols, and some para-substituted phenols, under proper pH conditions, are detected with this method. The method is applicable to the monitoring of phenolic compounds in wastewater. Results are expressed as ppm (mg/L) phenol.



Range: 0-1 & 0-12 ppm MDL: 0.05 ppm / Method: 4-Aminoantipyrine	
CHEMets Kit	Cat# K-8012
CHEMets Refill, 30 ampoules	R-8012
Low Range Comparator 0, 0.1, 0.2, 0.3, 0.4, 0.6, 0.8, 1.0 ppm	C-8001
High Range Comparator 0, 1, 2, 3, 4, 6, 8, 10, 12 ppm	C-8012
Kit comes in a plastic case and contains everything needed to perform 30 tests: Refill, Low and High Range Comparators, 25 mL sample cup and instructions.	

Range: 0-30 & 0-350 ppm MDL: 5 ppm / Method: 4-Aminoantipyrine	
VACUettes Kit	Cat# K-8012D
VACUettes Refill, 30 ampoules	R-8012D
Low Range Comparator 0, 5, 7.5, 10, 15, 20, 25, 30 ppm	C-8001D
High Range Comparator 0, 30, 75, 100, 150, 200, 250, 300, 350 ppm	C-8012D
Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Low and High Range Comparators, dilutor snapper cup, micro test tube and instructions.	

Range: 0-60 & 0-700 ppm MDL: 10 ppm / Method: 4-Aminoantipyrine	
VACUettes Kit	Cat# K-8012A
VACUettes Refill, 30 ampoules	R-8012A
Low Range Comparator 0, 10, 15, 20, 30, 40, 50, 60 ppm	C-8001A
High Range Comparator 0, 60, 150, 200, 300, 400, 500, 600, 700 ppm	C-8012A
Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Low and High Range Comparators, dilutor snapper cup, micro test tube and instructions.	

Range: 0-120 & 0-1400 ppm MDL: 20 ppm / Method: 4-Aminoantipyrine	
VACUettes Kit	Cat# K-8012B
VACUettes Refill, 30 ampoules	R-8012B
Low Range Comparator 0, 20, 30, 40, 60, 80, 100, 120 ppm	C-8001B
High Range Comparator 0, 120, 300, 400, 600, 800, 1000, 1200, 1400 ppm	C-8012B
Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Low and High Range Comparators, dilutor snapper cup, micro test tube and instructions.	

Range: 0-1000 & 0-13000 ppm MDL: 100 ppm / Method: 4-Aminoantipyrine	
VACUettes Kit	Cat# K-8012C
VACUettes Refill, 30 ampoules	R-8012C
Low Range Comparator 0, 100, 200, 300, 400, 600, 800, 1000 ppm	C-8001C
High Range Comparator 0, 1000, 2000, 3000, 5000, 7000, 9000, 11,000, 13,000 ppm	C-8012C
Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Low and High Range Comparators, dilutor snapper cup, micro test tube and instructions.	

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.

 Instrumental Kits

Multi-Analyte Photometers

V-2000 / V-3000 Series

(See page 14 for instrumental features)

Range: 0-8.00 ppm

Method: 4-Aminoantipyrine

	Cat#
Vacu-vials Kit	K-8003
Kit comes in a cardboard box and contains everything needed to perform 30 tests: thirty ampoules, 25 mL sample cup, ampoule blank and instructions.	

Range: 0-20.0 ppm

Method: 4-Aminoantipyrine

	Cat#
Vacu-vials Kit	K-8023
Kit comes in a cardboard box and contains everything needed to perform 30 tests: thirty ampoules, 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 Phenols

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

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*No need to dispense.
The ferricyanide powder
is right on the tip.*