

## Method

References: APHA Standard Methods, 14<sup>th</sup> 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).

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 method is applicable to the monitoring of phenolic compounds in wastewater.

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. Results are expressed as ppm (mg/L) phenol.



## Visual Kits

**Range: 0-1 & 0-12 ppm**  
MDL: 0.05 ppm / Method: 4-Aminoantipyrine

	Cat#
<b>CHEMets Kit</b>	<b>K-8012</b>
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, instructions and MSDS.

**Range: 0-30 & 0-350 ppm**  
MDL: 5 ppm / Method: 4-Aminoantipyrine

	Cat#
<b>VACUettes Kit</b>	<b>K-8012D</b>
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, instructions, and MSDS.

**Range: 0-60 & 0-700 ppm**  
MDL: 10 ppm / Method: 4-Aminoantipyrine

	Cat#
<b>VACUettes Kit</b>	<b>K-8012A</b>
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, instructions, and MSDS.

**Range: 0-120 & 0-1400 ppm**  
MDL: 20 ppm / Method: 4-Aminoantipyrine

	Cat#
<b>VACUettes Kit</b>	<b>K-8012B</b>
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, instructions, and MSDS.

**Range: 0-1000 & 0-13000 ppm**  
MDL: 100 ppm / Method: 4-Aminoantipyrine

	Cat#
<b>VACUettes Kit</b>	<b>K-8012C</b>
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, instructions, and MSDS.

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

 Instrumental Kits

**V-2000 Multi-Analyte Photometer**

(See page 12 for instrumental features)

**Range: 0.40-8.00 ppm**  
Method: 4-Aminoantipyrine

**Vacu-vials Kit** **Cat#**  
**K-8003**

Kit comes in a cardboard box and contains everything needed to perform 30 tests: thirty ampoules, 25 mL sample cup, ampoule blank, instructions, calibration table, and MSDS.

**Range: 1.0-20.0 ppm**  
Method: 4-Aminoantipyrine

**Vacu-vials Kit** **Cat#**  
**K-8023**

Kit comes in a cardboard box and contains everything needed to perform 30 tests: thirty ampoules, 25 mL sample cup, ampoule blank, instructions, calibration table, and MSDS.

*Vacu-vials Kits require the use of the V-2000 Photometer or a spectrophotometer capable of accepting a 13 mm diameter round cell. Instrument sold separately.*

**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

*Instructions are posted on our website.*



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