

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

| | Cat# |
|--|---------------|
| CHEMets Kit | 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, instructions and MSDS. | |

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

| | Cat# |
|--|----------------|
| VACUettes Kit | 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, instructions, and MSDS. | |

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

| | Cat# |
|--|----------------|
| VACUettes Kit | 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, instructions, and MSDS. | |

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

| | Cat# |
|--|----------------|
| VACUettes Kit | 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, instructions, and MSDS. | |

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

| | Cat# |
|--|----------------|
| VACUettes Kit | 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, instructions, and MSDS. | |

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

V-2000 Multi-Analyte Photometer

(See page 14 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, 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, 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 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.*



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