

Method

Surface and ground waters rarely contain more than 1 mg/L of soluble or suspended manganese. Manganese can act as an oxidizing or a reducing agent depending on its valence state. Manganese is also used in the manufacture of batteries and as an alloying metal in the manufacture of steel and aluminum. The National Secondary Drinking Water Standard for manganese is 0.05 mg/L, as higher concentrations will impart a foul taste to water and discolor laundry and porcelain surfaces.

The Periodate Method

Reference: APHA Standard Methods, 14th ed. Method 314 C (1975).

CHEMetrics tests employ the periodate chemistry that measures soluble manganese compounds but does not differentiate the various valence states. Results are expressed as ppm (mg/L) Mn.

Visual Kits

Range: 0-2 ppm
MDL: 0.15 ppm / Method: Periodate

	Cat#
CHEMets Kit	K-6502
CHEMets Refill, 30 ampoules	R-6502
Activator Solution Pack, six 20 mL bottles	A-6500 ¹
Comparator, Shelf-life 1 year: 0, 0.3, 0.6, 0.8, 1.0, 1.5, 1.8, 2.0 ppm	C-6502

Kit comes in a plastic case and contains everything needed to perform 30 tests: Refill, Comparator, Activator Solution, 5 mL sample cup with top and instructions.

Range: 0-50 ppm
MDL: 7.5 ppm / Method: Periodate

	Cat#
VACUettes Kit	K-6502D
VACUettes Refill, 30 ampoules	R-6502D
Activator Solution Pack, six 20 mL bottles	A-6500 ¹
Comparator, Shelf-life 1 year: 0, 7.5, 15, 20, 25, 37.5, 45, 50 ppm	C-6502D

Kit comes in a plastic case and contains everything needed to perform 30 tests (except distilled water): Refill, Comparator, Activator 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: 0-30.0 ppm

Method: Periodate

	Cat#
Vacu-vials Kit	K-6503

Kit comes in a cardboard box and contains everything needed to perform 30 tests: thirty ampoules, Activator Solution, 25 mL sample cup, 1.0 mL syringe, 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 Manganese

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
Syringe Pack, 1.0 mL (6 ea)	A-0027
Sample Cup and Top Pack, 5 mL (6 ea)	A-0105

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.

