

Method

Reference: APHA Standard Methods, 14th ed. p. 227, Method 314 C (1975).

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. Manganese concentrations in potable water should not exceed 0.05 mg/L. Concentrations greater than 0.1 mg/L will impart a foul taste to water and discolor laundry and porcelain surfaces.

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.



Instrumental Kits

V-2000 Multi-Analyte Photometer

(See page 8 for instrumental features)

Range: 1.0-30.0 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, 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.

V-1000 Multi-Analyte Photometer

(See page 10 for instrumental features)

Range: 3.0-50.0 ppm
Method: Periodate

	Cat#
VVR Module	V-6503
Vacu-vials Refill, 30 ampoules	R-6503
Activator Solution Pack, six 60 mL bottles, Shelf-life 2 years	A-6501 ¹
VVR Filter, Shelf-life 2 years	F-6503

Module comes in a cardboard box and contains everything needed to perform 30 tests: Refill, VVR Filter, Activator Solution, 25 mL sample cup, 1.0 mL syringe, instructions, and MSDS.

VVR Modules require the use of the V-1000 Photometer. Instrument sold separately.

Kit Components common to Manganese

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
Syringe Pack, 1.0 mL (6 ea)	A-0027
Sample Cup and Top Pack, 5 mL (6 ea)	A-0105
VVR Zero Ampoule Pack (5 ea)	A-0128
VVR Zero Test Tube Pack (5 ea)	A-0129



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, Shelf-life 2 years	A-6500 ¹
Comparator, Shelf-life 2 years: 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, instructions, and MSDS.

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, Shelf-life 2 years	A-6500 ¹
Comparator, Shelf-life 2 years: 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, micro test tube, instructions, and MSDS.

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

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