

SAMPLE PREPARATION STEPS:

1. Fill the supplied, plastic vial to the top line with the water test sample (about 5mL).
2. Dip one **Mn Strip #1** into the vial for **20 seconds** with a constant, gentle back and forth motion. Discard the strip.
3. Dip one **Mn Strip #2** into the vial for **20 seconds** with a constant, gentle back and forth motion. Discard the strip.
(**CAUTION: Contains 40mg Cyanide** [CAS 151-50-8]. Avoid contact with skin and eyes. **DO NOT** ingest or expose to acids).

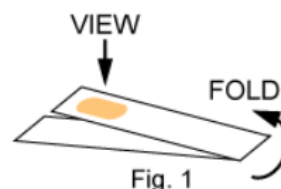
COLOR DEVELOPMENT STEPS:

4. Dip one **Mn Strip #3** into the vial for **30 seconds** with a constant, gentle back and forth motion (approx. 2 strokes/sec).
5. Remove the strip and shake once, briskly, to remove excess water.
6. **Wait 3 minutes**, then match to the color chart.

NOTE: This test uses a modified PAN method as developed by Goto, et al, Talanta **24**, 652 (1977). This test method uses Ascorbic Acid (#1 Strip) to reduce all oxidized manganese ions into Mn^{+2} ; and an alkali cyanide reagent (#2 strip) to mask interferences. The PAN indicator strip (#3 strip) develops an orange color in the presence of manganese.

NOTE: Dispose of used liquid sample and Mn Strip #2 in accordance with local environmental laws since both contain a small amount of Cyanide.

NOTE: For best color matching of Mn Strip #3, fold the white plastic handle of the strip under the aperture so it produces a white viewing background (Fig 1).



NOTE: Digestion of sample is required for detection of Total Manganese.

IMPORTANT

**Read Safety Data Sheet (SDS).
Keep Away from Children & Pets.**