

# Molybdate Test Procedure

(Using 60ml. Dropper Bottle)

## Procedure:

1. Take a 25 ml. sample (*the bottom of the curved surface or meniscus should be exactly level with the mark.*)
2. Cool sample to room temperature.
3. Add 5 drops of Molybdenum Buffer Solution **EC-R0401** and 15 drops of Mixed Indicator Solution **EC-R0402** and mix well.
4. If the water turns green in color; no Molybdenum is present and the answer is reported as zero. If the water turns purple/dark purple, Molybdenum is present and the test should be continued to Step 5
5. Add Molybdenum Titrating Solution **EC-R0403**, drop by drop, shaking the beaker between each drop, counting the drops, until the color changes from purple/dark purple to permanent green. This is the endpoint. (*Care should be taken to hold the dropper bottle in a vertical position for accuracy.*)
6. The Molybdate  $\text{MoO}_4$  reading in ppm (mg/L) is equal to the number of drops of Molybdenum Titrating Solution **EC-R403** used times 12. (*Example: 10 drops x 12 = 120 ppm (mg/L) Molybdate as  $\text{MoO}_4$ .*)

**NOTE: SAMPLE MUST BE COOLED TO ROOM TEMPERATURE**

## Recommended Parameters:

Due to changes in feed water and boiler operating conditions, these recommendations must be considered as best approximations.

Closed Recirculating Water Systems ..... 80 -100 ppm  
Steam boilers..... 80 - 100 ppm

## Interpretation of Analytical Results:

Molybdate levels under 80 ppm: .....Add **ENERCON EC-451, EC-459, EC-471, EC-9451** or **EC-9471** to bring system water to recommended levels, or corrosion may occur.

Consult your **ENERCON** Technical Field Representative.

3606 - 6th Avenue North Lethbridge, AB T1H 5C4  
Phone (403) 328-9730 - 1-800-248-1195 - Fax (403) 327-4375  
Website: [www.enercon.ca](http://www.enercon.ca) - E-Mail: [ewt@enerconwt.com](mailto:ewt@enerconwt.com)



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