



MOLYBDENUM KIT

LOW RANGE COMPARATOR, 2-20 ppm

CODE 3160-01

QUANTITY	CONTENTS	CODE
60 mL	*Molybdenum Buffer Reagent	*6484-H
60 mL	*Molybdenum Oxidizing Reagent	*6485-H
2.5 g	*Molybdenum Indicator Powder	*6486-S
3	Test Tubes, 10 mL, glass, w/caps	0844
1	Spoon, 0.05 g, plastic	0696
2	Pipet, 1.0 mL, plastic, w/caps	0372
1	Low Range Comparator Viewer	1102
1	Molybdenum Low Range Comparator Bar, 2-20 ppm	3161-01

*WARNING: Reagents marked with an * are considered to be potential health hazards. To view or print a Safety Data Sheet (SDS) for these reagents go to www.lamotte.com. Search for the four digit reagent code number listed on the reagent label, in the contents list or in the test procedures. Omit any letter that follows or precedes the four digit code number. For example, if the code is 4450WT-H, search 4450. To obtain a printed copy, contact LaMotte by email, phone or fax.

Emergency information for all LaMotte reagents is available from Chem-Tel: (US, 1-800-255-3924) (International, call collect, 813-248-0585).

NOTE: Place the screw cap pipets (0372) on *Molybdenum Buffer Reagent (6484) and *Molybdenum Oxidizing Reagent (6485) before proceeding.

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USE OF THE LOW RANGE COMPARATOR

The Low Range Comparator allows extremely faint colors to be matched to color standards by viewing the reaction down the length of the tube increasing the path length by ten times compared to comparators that view the reaction across the diameter of the tube.

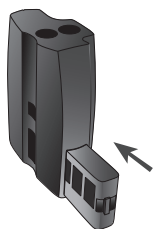


fig.1

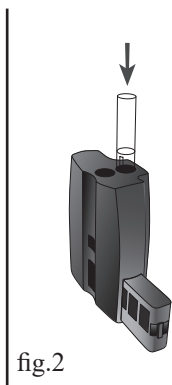


fig.2

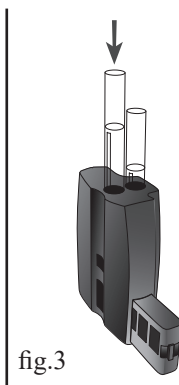


fig.3

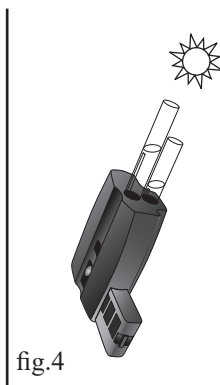


fig.4

1. Slide the Low Range Comparator Bar into the Low Range Comparator (fig.1).
2. Fill a test tube with sample water. Follow the test procedure. Remove the cap. Insert the tube in the front hole on the top of the Low Range Comparator (fig.2).
3. Fill a test tube to the 10 mL line with sample water. Insert it in the rear hole on the top of the Low Range Comparator (fig.3).
4. Position the comparator so that light shines down through the test tubes (fig.4). Tilt the comparator until the color standards and sample are illuminated. Match the color of the reaction to the color standards. Read the result from the Low Range Comparator Bar.

PROCEDURE

1. Slide the Molybdenum Low Range Comparator Bar (3161-01) into the Low Range Comparator Viewer (1102). Fill a tube (0844) to the 10 mL line with the sample water. Put the tube in the Low Range Comparator.
2. Fill a test tube (0844) to the 10 mL line with sample water.
3. Add 1.0 mL of *Molybdenum Buffer Reagent (6484). Cap and mix.
4. Add 1 mL of *Molybdenum Oxidizing Reagent (6485). Cap and mix.
5. Use the 0.05 g spoon (0696) to add 0.05 g of *Molybdenum Indicator Powder (6486). Cap and mix until all the powder is dissolved. Solution will turn yellow if molybdenum is present.
6. Remove the cap from the test tube. Place the tube in the Low Range Comparator.
7. Match sample color to a color standard. Record as ppm Molybdenum.
8. To convert molybdenum (Mo) to molybdate (MoO_4), divide by 0.6. Record as ppm Molybdate.

$$\text{Molybdate} = \text{Molybdenum} \div 0.6$$