



## TOTAL HARDNESS (LOW RANGE) KIT

DIRECT READING TITRATOR, 0-10 ppm

CODE 3037-DR-01

QUANTITY	CONTENTS	CODE
15 mL	*Hardness Reagent #5	*4483-E
15 mL	*CM Indicator Reagent	*6522-E
60 mL	Hardness Titration Reagent	4257-H
1	Test Tube, 5-10-12.9-15-20-25 mL, w/cap	0608
1	Direct Reading Titrator, 0-10 Range	0377

**\*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](http://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).

To order individual reagents or test kit components, use the specified code number.

Carefully read the instruction manual for the LaMotte Direct Reading Titrator before performing the titration described below. The Titrator is calibrated in terms of Hardness expressed as parts per million (ppm) Calcium Carbonate ( $\text{CaCO}_3$ ). Each minor division on the Titrator scale equals 0.2 ppm  $\text{CaCO}_3$ .

## PROCEDURE

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1. Fill the test tube (0608) to the 25 mL line with sample water.
2. Add 8 drops of \*Hardness Reagent 5 (4483) and 8 drops of \*CM Indicator Reagent (6522). Cap the tube and swirl to mix. A red or purple color will appear if hardness is present. Solution will turn purple or red if hardness is present. If solution is blue, there is no measurable amount of hardness.
3. Fill the Direct Reading Titrator (0377) with the Hardness Titration Reagent (4257). Insert the Titrator in the center hole of the titration tube cap.
4. While gently swirling the tube, slowly press the plunger to titrate until the red or purple color changes to a bright blue with no trace of red. Read the test result directly from the scale where the large ring on the Titrator meets the Titrator barrel. The result is expressed as Total Hardness in ppm  $\text{CaCO}_3$ .
5. If the plunger tip reaches the bottom line on the Titrator scale (10 ppm) before the endpoint color change occurs, refill the Titrator and continue the titration. When recording the test result, be sure to include the value of the original amount of reagent dispensed (10 ppm).

### **LaMOTTE COMPANY**

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