



# Test method T1007

## "M" Alkalinity of water

NOVEMBER 2012



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## Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		Reformatted and Revision Summary Added	D.Dash	June 2001
Ed 2/ Rev 0	All	Reformatted RMS template	J Friedrich	November 2012

Note that Roads and Maritime Services is hereafter referred to as 'RMS'.

The most recent revision to Test method T1007 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

# Test method T1007

## "M" Alkalinity of water

### 1. Scope

This test method sets out the procedure for determination of the "M" alkalinity of water by titration with sulphuric acid using bromocresol green indicator.

### 2. Apparatus

- (a) Laboratory glassware including burettes, pipettes, flasks etc.
- (b) A balance of 200 g capacity, accurate and readable to 0.0001 g.

### 3. Reagents

- (a) Bromocresol Green Indicator.
- (b) 0.1 N Sulphuric Acid Solution.
- (c) Measure out approximately 2.8 mL concentrated sulphuric acid and add slowly to a 1 litre volumetric flask which has been half-filled with distilled water. Allow to cool. Make up to the mark on the flask with distilled water. Standardise this solution against sodium carbonate solution using bromocresol green indicator.

**CAUTION: Sulphuric acid can cause severe burns. Avoid contact with eyes, skin and clothing. Always dilute by carefully adding acid to water - NEVER THE REVERSE. Always wear safety glasses when handling acid.**

- (d) 0.1 N Sodium Carbonate Solution.

Weigh out exactly 5.300 g of dry sodium carbonate and place into a 1 litre volumetric flask. Add distilled water and shake until dissolved. Make up to the mark on the neck of the flask with distilled water.

### 4. Procedure

- (a) Pipette 50 mL of the sample into a beaker.
- (b) Add about 6 drops of bromocresol green indicator. If "M" alkalinity is present, the solution will turn blue.
- (c) Titrate with the sulphuric acid solution until the solution just turns yellow.

### 5. Calculation and Reporting

"M" Alkalinity (ppm) = Titre in mL x 100 in terms of CaCO<sub>3</sub>.