												1								i.
																				i.
																				i.
																			н.	i.
													Lc	31	/il	٦	31	٦Ĉ		

# MINIKIT



0 - 200 mg/l Na₂SO₄

AF 432

41 43 20



# Introduction

This Sulphate Low Range Minikit uses a modified form of the tablet count method. The test range is 20 - 200 mg/l as Na<sub>2</sub>SO<sub>4</sub>.

# Contents

Calibrated sample container, 100 ml Sulphate No.1 tablets, 30 pieces in foil Sulphate No.2 tablets, 170 pieces in foil Instruction manual in 8 languages

# Instructions

Range 20 - 200 mg/l Na<sub>2</sub>SO<sub>4</sub>

Sample Size 50 ml

# A: Determining of the hardness of the water

- 1. Take a sample of water in the sample container, filling to the 50 ml mark.
- Add one Sulphate No.2 tablet and shake the container until the tablet disintegrates. Continue adding Sulphate No.2 tablets in this manner one at a time until the colour changes from **PLUM RED to GREEN**. Count the number of tablets required.
- 3. Multiply this figure by 14 to find out the hardness of the water (as  $mg/l CaCO_3$ ). This test method is not suitable for waters of hardness greater than 70 mg/l (i.e. if more than 5 tablets are required).

### **B:** Determining the Sulphate Content

- 1. Rinse the sample container and refill to the 50 ml mark.
- 2. Add one Sulphate No. 1 tablet. Shake the container to disintegrate the tablet completely.
- 3. Leave it for 15 minutes.
- Next add the same number of Sulphate No.2 tablets as were required in the above hardness test and shake the container until the tablets are completely disintegrated.
- 5. Then add a further Sulphate No.2 tablet, shake as before and at this stage start counting, calling this tablet the first.
- Continue adding Sulphate No.2 tablets in this manner one at time until the colour changes from PLUM RED to GREEN. Note this number of Sulphate No.2 tablets required from the start of counting. Call this N.
- 7. Calculation:

Sulphate (as mg/l  $Na_2SO_4$ ) = (14 - N) x 20

### Cleaning

Thoroughly rinse out the sample container after each use.

# Example

Number of tablets required in the Hardness test = 3 3 x 14 = 42 mg/l CaCO<sub>3</sub>

Number of tablets required from the start of counting = 4 Sulphate (as mg/l  $Na_2SO_4$ ) = (14 - 4) x 20 = 200 Sulphate (mg/l  $SO_4$ ) = 0,67 x 200 = 134

#### Important

Thoroughly rinse out the sample container after each use.

# Conversion

Sulphate (as mg/l SO<sub>4</sub>) = factor 0,67 x Sulphate (as mg/l Na<sub>2</sub>SO<sub>4</sub>)

н,																			н,
н,																			
		1					1	1		1	1	1							1
		1					1	1		1	1	1							1
		1					1	1		1	1	1							1
		1					1	1		1	1	1							1

#### Sulphate No.1 Tablets

Code: 51 52 20 (100) Code: 51 52 21 (250) Code: 51 52 22 (500)

#### Sulphate No.2 Tablets

Code: 51 52 30 (100) Code: 51 52 31 (250) Code: 51 52 32 (500)

Technical changes without notice. Printed in Germany 11/07 Technische Änderungen vorbehalten.

Lovibond<sup>®</sup> and Tintometer<sup>®</sup> are Trademarks of the Tintometer Companies.

The Tintometer Ltd. Amesbury England Lovibond<sup>®</sup> und Tintometer<sup>®</sup> sind eingetragene Warenzeichen der Tintometer Firmengruppe.

Tintometer GmbH 44273 Dortmund Germany

