

# PHMB

## TEST FOR PHMB-BASED SANITISERS IN SWIMMING POOL WATER

### Photometer Method

### AUTOMATIC WAVELENGTH SELECTION

0 – 100 mg/l

Polyhexamethylbiguanide (PHMB) is an organic biocide used for water disinfection. PHMB-based sanitisers are widely used for the treatment of swimming pool water. These sanitisers are typically sold under branded names, for example Baquacil\* (Zeneca), Softswim\* (Biolab), Revosil\* (Mareva) and Nicosil\* (Nico Norge).

The Palintest PHMB test provides a simple means of measuring PHMB-based sanitiser levels in swimming pool waters over the range 0 - 100 mg/l. The test is calibrated in terms of commercially available sanitiser products which normally contain 20% active biocide.

### Method

The Palintest PHMB test is based on a colorimetric method developed by Palintest and now established as the standard method of testing for polyhexamethylbiguanide. In the test the PHMB reacts with a sulphone-phthalein indicator under mildly acid conditions to form an intense blue complex. The indicator itself is yellow in colour. Thus at different PHMB levels a distinctive range of colours from yellow, through green, to blue are produced.

In the Palintest method, the reagents are combined in the form of a single tablet and the test is simply carried out by adding a tablet to a sample of water. The intensity of the colour produced is proportional to the PHMB concentration and is measured using a Palintest Photometer.

### Reagents and Equipment

Palintest PHMB-Phot Tablets

Palintest Automatic Wavelength Selection Photometer

Round Test Tubes, 10 ml glass (PT 595)

### Test Procedure

- 1 Fill the test tube with sample to the 10 ml mark.
- 2 Add one PHMB-Phot tablet crush and mix to dissolve.
- 3 Select Phot 52 on Photometer.
- 4 Take Photometer reading immediately in usual manner (see Photometer instructions).
- 5 The result is displayed as mg/l active biocide.

\* All trade marks acknowledged