

Isothiazoline

56I701200

0 - 7.5 mg/L

## Material

Reagents	Packaging Unit	Part Number
Isothiazolinone Reagent DK1	65 mL	56L046165
Isothiazolinone Reagent DK2	65 mL	56L046265
Isothiazolinone Reagent DK3	65 mL	56L046365
Isothiazolinone Reagent DK4	65 mL	56L714465
Isothiazolinone Reagent DK5	65 mL	56L046565

The following accessories are required.

Accessories	Packaging Unit	Part Number
Test Tube 5/10 mL + Cap	1 Pieces	56A600401
Syringe, plastic, 20 mL	1 Pieces	56A006501
Colour disc Isothiazolone	1 Pieces	AS-K31022

## Application List

- Cooling Water
- Disinfection Control

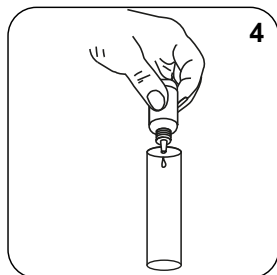
## Remarks

This test is suitable for the determination of Isothiazolinone in industrial water systems. Isothiazolinone is used as a non-oxidising biocide to control bacteria in open systems, often in combination with a second biocide. This test has been evaluated on water samples taken from open evaporative cooling systems containing a wide range of treatment chemicals. No significant interferences were found. There are however a few points to note when performing the analysis:

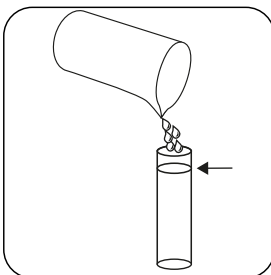
1. Coloured or turbid samples can mask the colour generated in the test. In this instance, filter the sample using a 0.45µm filter membrane to remove any suspended material.
2. To achieve best test performance it is important to store the test reagents in a cool place, away from direct sunlight, if possible refrigerate at + 4°C. If reagent DK5 has been exposed to temperatures in excess of 25°C for a sustained period of time this may cause a false positive result in the test. It is possible to check the performance of reagent DK5 by carrying out a reagent blank. The result of which can be deducted from the test result.

3. To perform the reagent blank, carry out the test on SAMPLE WATER (not tap water or another reagent blank). The result of this test will give a true reagent blank that can be deducted from the normal test result. Performing the reagent blank in this way will also compensate for any interferences (should there be any) from any other chemical in the sample. It is good analytical practice to perform a reagent blank on any new system tested and also check reagent DK5 periodically.
4. This test will measure active Isothiazolinone. To convert this result into concentration of dosed product, simply multiply by the appropriate factor, taking into account the concentration of active isothiazolinone in the product.

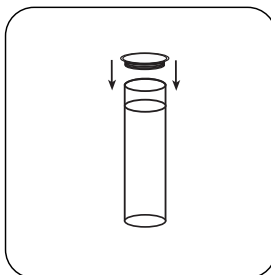
Performing a test with the sample.



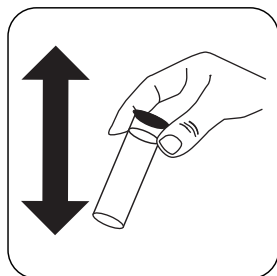
Add **4 drops Isothiazoline DK1**.



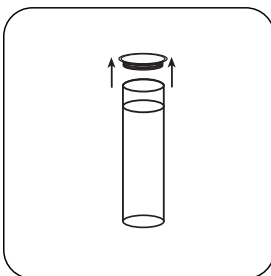
Fill up test tube with **sample to the 10 mL mark**.



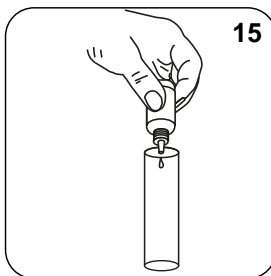
Close test tube(s).



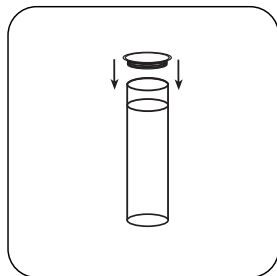
Mix the contents by shaking.



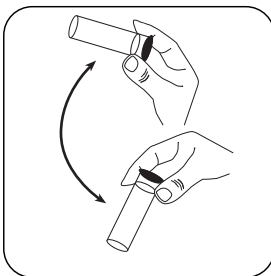
Open the test tube(s).



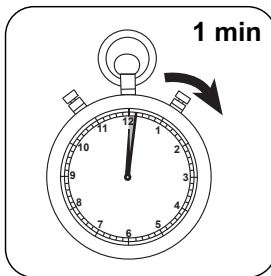
Add **15 drops Isothiazoline DK2**.



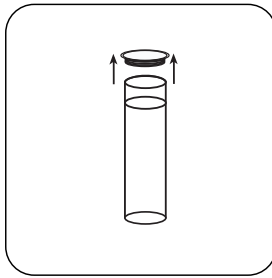
Close test tube(s).



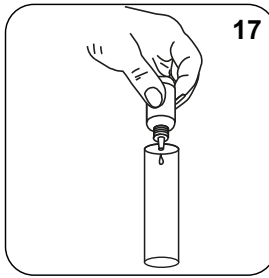
Invert several times to mix the contents.



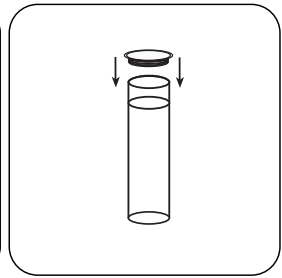
Wait for **1 minute(s) reaction time**.



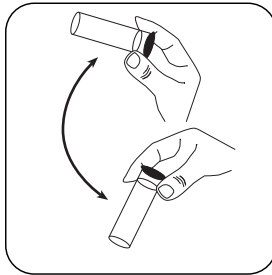
Open the test tube(s).



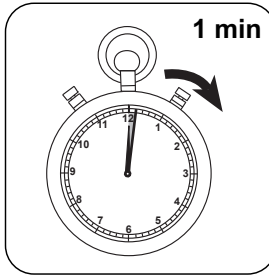
Add **17 drops Isothiazoli-  
none DK3.**



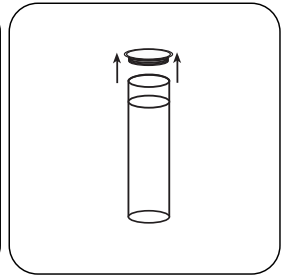
Close test tube(s).



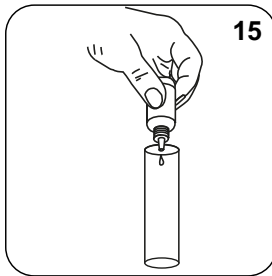
Invert several times to mix  
the contents.



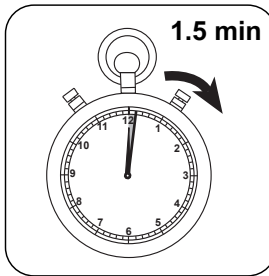
Wait for **1 minute(s) reac-  
tion time.**



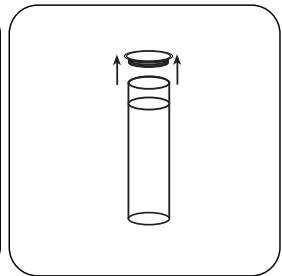
Open the test tube(s).



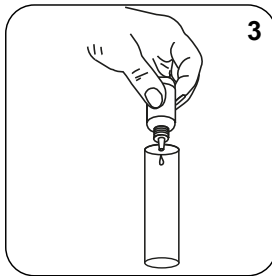
Add **15 drops Isothiazoli-  
none DK4.**



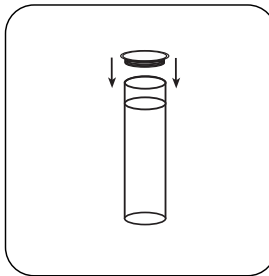
Wait for **1.5 minute(s)  
reaction time.**



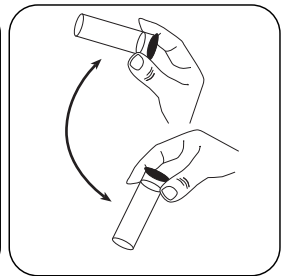
Open the test tube(s).



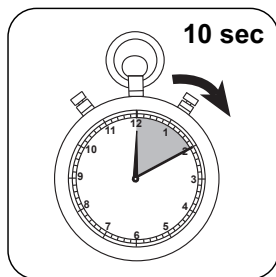
Add **3 drops Isothiazoli-  
none dK5.**



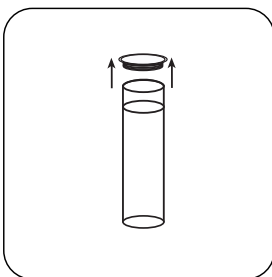
Close test tube(s).



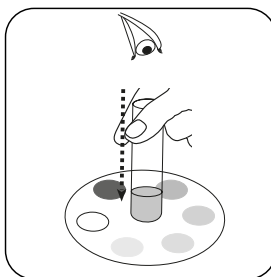
Invert several times to mix  
the contents.



Wait for **10 second(s)** reaction time.

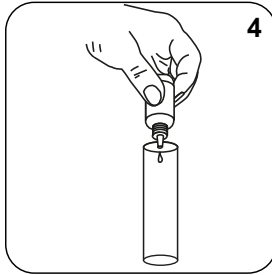


Open the test tube(s).

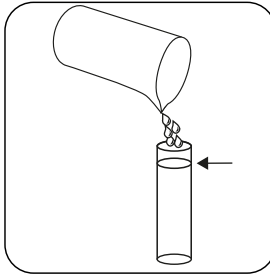


Look down through the tube, compare the colour produced in the tube to the colour standards printed on the comparison chart. Match to the nearest standard and read of the corresponding concentration value as Isothiazolinone in mg/l (ppm).

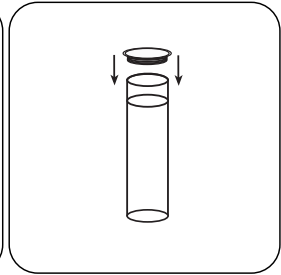
Performing a reagent blank with the sample.



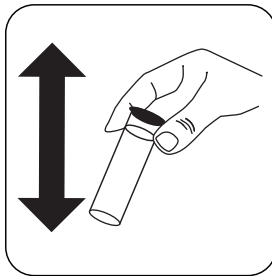
Add **4 drops Isothiazoline DK1**.



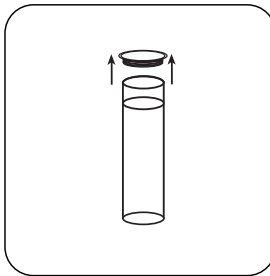
Fill up test tube with **sample to the 10 mL mark**.



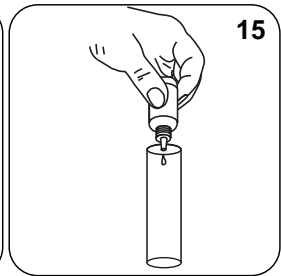
Close test tube(s).



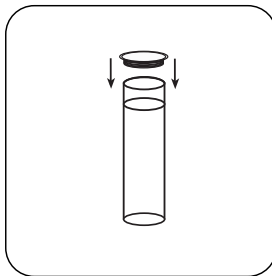
Mix the contents by shaking.



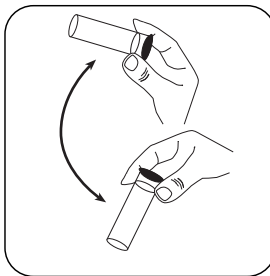
Open the test tube(s).



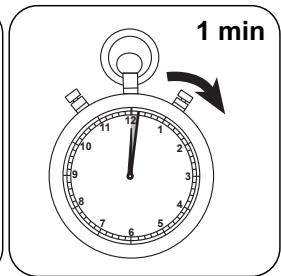
Add **15 drops Isothiazoline DK2**.



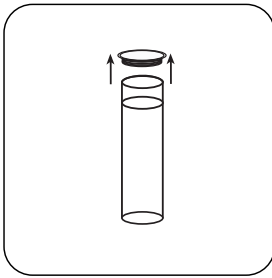
Close test tube(s).



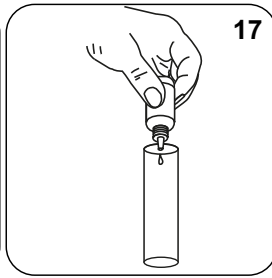
Invert several times to mix the contents.



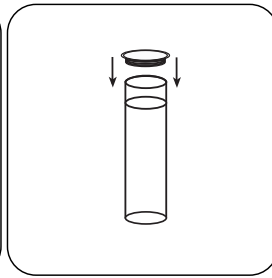
Wait for **1 minute(s) reaction time**.



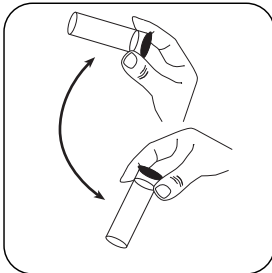
Open the test tube(s).



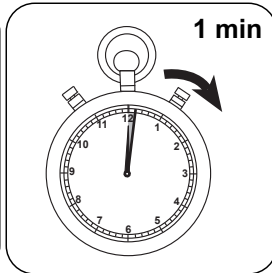
Add **17 drops Isothiazoline DK3.**



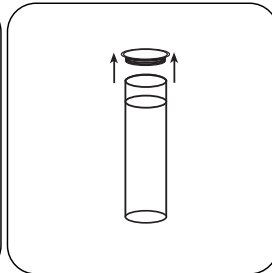
Close test tube(s).



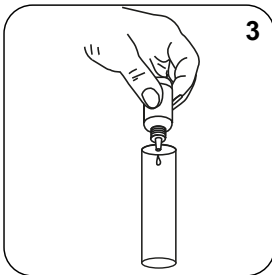
Invert several times to mix the contents.



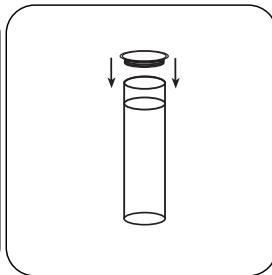
Wait for **1 minute(s) reaction time.**



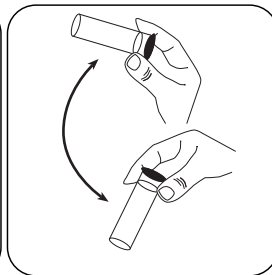
Open the test tube(s).



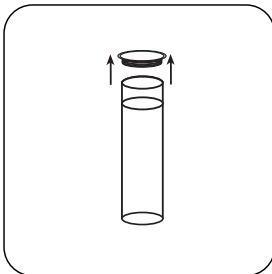
Add **3 drops Isothiazoline dK5.**



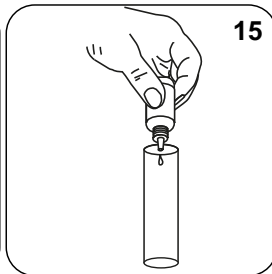
Close test tube(s).



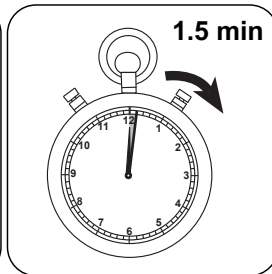
Invert several times to mix the contents.



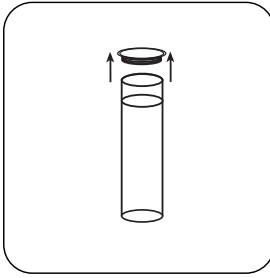
Open the test tube(s).



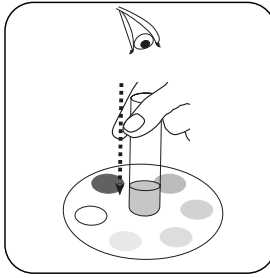
Add **15 drops Isothiazoline DK4.**



Wait for **1.5 minute(s) reaction time.**



Open the test tube(s).



Look down through the tube, compare the colour produced in the tube to the colour standards printed on the comparison chart. Match to the nearest standard and read of the corresponding concentration value as Isothiazolinone in mg/l (ppm).