

CHLORINE DIOXIDE METHOD 3

PRINCIPLE OF THE METHOD

Stabilised Chlorine Dioxide reacts with potassium iodide in acid solution to liberate iodine. The yellow colour produced which is proportional to the Chlorine Dioxide concentration is measured by comparison with a series of Lovibond permanent colour glass standards. **This test should only be used for Chlorine Dioxide in the absence of Chlorine and other oxidizing agents, as both free and combined chlorine react with potassium iodide.**

REAGENTS REQUIRED

1. Lovibond Acidifying GP Tablets
2. Lovibond Potassium Iodide Tablets

THE STANDARD LOVIBOND COMPARATOR DISC 3/157

The disc covers the range 0.25 to 5.0mg./l. Chlorine Dioxide in steps of 0.25, 0.5, 0.75, 1.0, 1.25, 1.5, 2.0, 3.0 and 5.0mg./l. and is used with 40mm./20ml. cells.

METHOD

1. Fill two 40mm./20 ml. cells to the 20ml. mark with the water sample and place one cell in the left hand compartment of the Comparator, to act as a blank.
2. To the other cell add one Potassium Iodide tablet and one Acidifying GP tablet in that order.
3. Crush the tablets with the flat end of a clean stirring rod and mix well until dissolved. Continue mixing for about another 30 seconds to ensure complete colour development.
4. Place the cell in the right hand compartment of the Comparator.
5. Hold the Comparator facing a standard source of white light such as the Lovibond Daylight 2000 Unit or, failing this North daylight (not fluorescent lighting) and rotate the disc until the nearest colour match is obtained.
6. The value displayed in the bottom right aperture of the Comparator is the concentration of Chlorine Dioxide in mg. /l.
7. If the colour produced is darker than the top step of the disc, the sample can be diluted with deionised water, the test repeated and the result multiplied by the dilution factor. e.g. for a sample diluted 1:1 the result would be multiplied by 2.

REVISION HISTORY

Date	Change Note	Issue
17/12/02	36/460	2
18/04/05	CA243	3
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