DIN EN ISO 5815-1:2020-11 (E)

Water quality - Determination of biochemical oxygen demand after n days (BOD<(Index)n>) - Part 1: Dilution and seeding method with allylthiourea addition (ISO 5815-1:2019)

Contents

Page

European foreword ... **3**

Foreword ... **4**

Introduction ... **6**

1 Scope ... **7**

2 Normative references ... **7**

3 Terms and definitions ... **8**

4 Principle ... **9**

5 Reagents ... **9**

6 Apparatus ... **12**

7 Sampling and preservation ... **12**

8 Interferences ... **13**
8.1 General ... 13
8.2 Presence of free and/or combined chlorine ... 13
8.3 Presence of algae ... 13
8.4 Presence of peroxides and peroxide compounds ... 14

9 Procedure ... **14**
9.1 General ... 14
9.2 Pretreatment ... 14
9.2.1 Neutralization of the sample ... 14
9.2.2 Homogenization ... 15
9.3 Preparation of test solutions ... 15
9.4 Calculation of dilutions ... 15
9.4.1 Empirical determination of the dilutions ... 15
9.4.2 Determination of dilutions via the factors *R* of the TOC, the permanganate index or the COD ... 16
9.4.3 Calculation of dilution stages via the COD ... 17
9.5 Blank value determination ... 17
9.6 Determination of dissolved oxygen ... 17
9.6.1 Measurement of dissolved oxygen using iodometric method (in accordance with ISO 5813) ... 17
9.6.2 Measurement of dissolved oxygen using probes (in accordance with ISO 5814 or ISO 17289) ... 18
9.7 Control analysis ... 18

10 Calculation and indication of the results ... **19**
10.1 Examination of test solutions for valid oxygen consumption during test ... 19
10.2 Calculation of biochemical oxygen demand after *n* days (BOD_n) ... 19
10.3 Validity criteria ... 20

11 Test report ... **20**

Annex A (normative) **Influence of incubation periods and temperatures** ... **21**

Annex B (informative) **Multitesting** ... **22**

Annex C (informative) **Direct seeding of the analysis batches** ... **25**

Annex D (informative) **Performance data** ... **26**

Bibliography ... **28**