DIN EN ISO 10253:2025-07 (E)

Water quality - Marine algal growth inhibition test with Skeletonema sp. and Phaeodactylum tricornutum (ISO 10253:2024)

Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Principle ... **2**

5 Materials ... **2**
5.1 Test organisms ... 2
5.2 Reagents ... 4
5.2.1 Water ... 4
5.2.2 Hydrochloric acid or sodium hydroxide solution ... 4
5.2.3 Synthetic sea water ... 4
5.2.4 Nutrient stock solution ... 4

6 Apparatus ... **5**

7 Procedure ... **6**
7.1 Preparation of growth medium ... 6
7.2 Preparation of pre-culture and inoculum ... 6
7.3 Choice of test concentrations ... 6
7.4 Preparation of test substance stock solutions ... 6
7.5 Preparation of test and control batches ... 7
7.6 Incubation ... 7
7.7 Measurements ... 8

8 Validity criteria ... **8**

9 Interpretation of data ... **8**
9.1 Plotting growth curves ... 8
9.2 Calculation of percentage inhibition ... 8
9.3 Determination of $EC(r)_x$ ... 9

10 Expression of results ... **9**

11 Interpretation of results ... **9**

12 Test report ... **10**

Annex A (informative) **Preparation of dilution series of mixtures in sea water(effluents or elutriates)** ... **11**

Annex B (informative) **Test procedure starting from stored algal inocula, and with direct measurement of algal growth in spectrophotometric cells** ... **12**

Annex C (informative) **Performance data** ... **18**

Annex D (informative) **Marine algal growth inhibition test with *Phaeodactylum tricornutum* applied in 24-well microwell plates** ... **19**

Bibliography ... **26**