DIN EN ISO 15213-2:2024-05 (E)

Microbiology of the food chain - Horizontal method for the detection and enumeration of Clostridium spp. - Part 2: Enumeration of Clostridium perfringens by colony-count technique (ISO 15213-2:2023)

Contents

Page

European foreword ... **3**

Foreword ... **4**

Introduction ... **6**

1 Scope ... **7**

2 Normative references ... **8**

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

4 Principle ... **9**
4.1 General ... 9
4.2 Preparation of dilutions ... 9
4.3 Enumeration ... 9
4.4 Confirmation ... 9

5 Culture media and reagents ... **10**

6 Equipment and consumables ... **10**

7 Sampling ... **10**

8 Preparation of test sample ... **11**

9 Procedure ... **11**
9.1 General ... 11
9.2 Test portion, initial suspension and dilutions ... 11
9.3 Heat treatment to select spores ... 11
9.4 Inoculation and incubation ... 12
9.5 Enumeration of typical colonies ... 12
9.6 Confirmation of *C. perfringens* ... 13
9.6.1 Selection of colonies for confirmation ... 13
9.6.2 Acid phosphatase test ... 13
9.6.3 Sulfite indole motility (SIM) agar test ... 13
9.6.4 Differentiation between human pathogenic and non-pathogenic *C. perfringens* strains (optional) ... 14
9.6.5 Interpretation ... 14

10 Expression of results ... **14**

11 Validation of the method ... **14**
11.1 Interlaboratory study ... 14
11.2 Performance characteristics ... 14

12 Test report ... **15**

13 Quality assurance ... **16**

Annex A (normative) **Flow diagram of the procedure** ... **17**

Annex B (normative) **Culture media and reagents** ... **19**

Annex C (informative) **Method validation studies and performance characteristics** ... **24**

Annex D (informative) **Molecular differentiation between pathogenic and non-pathogenic *C. perfringens*** ... **27**

Bibliography ... **49**