# DIN EN ISO 10273:2017-08 (E)

## Microbiology of the food chain - Horizontal method for the detection of pathogenic Yersinia enterocolitica (ISO 10273:2017)

## Contents

Page


**European foreword** ... **4**

**Foreword** ... **5**

**Introduction** ... **7**

**1 Scope** ... **8**

**2 Normative references** ... **8**

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

**4 Abbreviated terms** ... **9**

**5 Principle** ... **9**
5.1 General ... 9
5.2 Direct plating from liquid enrichment medium ... 9
5.3 Enrichment in liquid enrichment medium and selective liquid enrichment medium ... 9
5.4 Plating out after enrichment and identification ... 9
5.5 Confirmation ... 10

**6 Culture media and reagents** ... **10**

**7 Equipment and consumables** ... **10**

**8 Sampling** ... **10**

**9 Preparation of test sample** ... **11**

**10 Procedure (as shown in Annex A)** ... **11**
10.1 Test portion and initial suspension ... 11
10.2 Direct plating on selective agar ... 11
10.3 Enrichment ... 12
10.4 Plating out and incubation of plates ... 12
10.4.1 Plating from PSB and ITC by KOH treatment on CIN agar ... 12
10.4.2 Plating from PSB and ITC by KOH treatment on chromogenic agar (optional) ... 12
10.5 Identification of characteristic colonies ... 12
10.6 Confirmation ... 13
10.6.1 General ... 13
10.6.2 Selection of colonies for confirmation ... 13
10.6.3 Determination of pathogenic ***Yersinia*** species ... 13
10.6.4 Confirmation of pathogenic ***Y. enterocolitica*** ... 15
10.6.5 Interpretation of confirmation tests for ***Y. enterocolitica*** ... 17
10.6.6 Interpretation of confirmation tests for pathogenic ***Y. enterocolitica*** ... 17
10.7 Biotyping of ***Y. enterocolitica*** (optional) ... 17
10.7.1 General ... 17
10.7.2 Fermentation of xylose ... 18
10.7.3 Tween-esterase test ... 18
10.7.4 Fermentation of salicin (optional) and trehalose ... 18
10.7.5 Indole formation ... 18
10.7.6 Interpretation of biotyping tests ... 18

**11 Expression of results** ... **19**

**12 Performance characteristics of the method** ..... **19**
12.1 Interlaboratory study ..... 19
12.2 Sensitivity ..... 19
12.3 Specificity ..... 19
12.4 $LOD_{50}$ ..... 19
**13 Test report** ..... **19**
**14 Quality assurance** ..... **20**
**Annex A** (normative) **Diagrams of the procedures** ..... **21**
**Annex B** (normative) **Composition and preparation of culture media and reagents** ..... **24**
**Annex C** (informative) **Method validation studies and performance characteristics** ..... **39**
**Annex D** (informative) **Procedure for cold enrichment** ..... **41**
**Bibliography** ..... **46**