

DIN EN 13704:2018-09 (E)

Chemical disinfectants - Quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas - Test method and requirements (phase 2, step 1)

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	7
3	Terms and definitions	7
4	Requirements	8
5	Test method	8
5.1	Principle	8
5.2	Materials and reagents	9
5.2.1	Test organisms	9
5.2.2	Culture media and reagents	9
5.3	Apparatus and glassware	11
5.3.1	General	11
5.3.2	Usual microbiological laboratory equipment and, in particular, the following	11
5.4	Preparation of spore test suspension and test solutions	12
5.4.1	Spore suspensions	12
5.4.2	Product test solution	14
5.5	Procedure	15
5.5.1	Choice of experimental conditions	15
5.5.2	Test procedure for assessing the sporicidal effect of the product	15
5.5.3	Validation of dilution neutralization and membrane filtration method	17
5.6	Calculation and expression of results	17
5.6.1	Overview of the different suspensions and test mixtures	17
5.6.2	Calculation	18
5.7	Verification of methodology	23
5.7.1	General	23
5.7.2	Control of weighted mean counts	23
5.7.3	Basic limits	23
5.7.4	Expression of results	24
5.8	Conclusion	24
5.9	Test report	24
Annex A (normative) Preparation of Bacillus subtilis and Bacillus cereus spore stock suspensions		26
A.1	Material and reagents	26
A.2	Preparation of Bacillus spore stock suspensions	26
Annex B (normative) Validation of dilution-neutralization and membrane filtration methods		28
B.1	Principle	28
B.2	Preparation of spore suspension	28
B.3	Preparation of product test solution	28
B.4	Test for validation	28

B.4.1	Dilution-neutralization method	28
DIN EN 13704:2018-09 EN 13704:2018 (E) B.4.1.1	General	28
B.4.1.2	Validation	29
B.4.2	Membrane filtration method	30
B.4.2.1	General	30
B.4.2.2	Validation	30
B.5	Validation	32
Annex C (informative) Preparation of Clostridium sporogenes spore stock suspension		33
C.1	Culture media and reagents	33
C.2	Apparatus and glassware	34
C.3	Preparation of regenerated media and incubation conditions	34
C.4	Preparation of Clostridium spore stock suspension	34
Annex D (informative) Neutralizers and rinsing liquids		36
Annex E (informative) Example of a typical test report		38
Annex F (informative) Referenced strains in national collections		40
F.1	Bacillus subtilis	40
F.2	Bacillus cereus	40
F.3	Clostridium sporogenes	40
Bibliography		41