ISO/TS 16550:2014-05 (E)

Nanotechnologies - Determination of silver nanoparticles potency by release of muramic acid from Staphylococcus aureus

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Termsanddefinitions 1

3 Symbols and abbreviated terms 3

4 Principles 3

5 Sample preparation for the determination of MA 4
5.1 Bacterial growth and AgNP treatment 4
5.2 Hydrolysis of cell wall 6
5.3 Derivatization of cell wall 6
5.4 Gas chromatography-mass spectrometry instrumentation 6

6 Data analysis and results interpretations 7

7 The test method for silver nanoparticle sample 8

Annex A (informative) Gas chromatography-mass spectrometry 9

Annex B (informative) Internal standard 10

Annex C (informative) Preparation of laboratory-prepared silver nanoparticles reference materials 11

Annex D (informative) Silver nanoparticle suspension preparation 12

Annex E (informative) Treatment control conditions; positive, negative, and bacterial suitability controls 13

Bibliography 14