



ISO 14644-13

**Cleanrooms and associated
controlled environments —**

Part 13:
**Cleaning of surfaces to achieve
defined levels of cleanliness in
terms of particle and chemical
concentration**

*Salles propres et environnements maîtrisés apparentés —
Partie 13: Nettoyage des surfaces afin d'obtenir des niveaux
de gradation de la propreté par rapport à la concentration
particulaire et chimique*

**Second edition
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Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 General methodology	3
4.1 Overview.....	3
4.2 Methodology.....	4
5 Object description	5
6 Cleanliness specifications	6
7 Determination of initial contamination level	6
7.1 General.....	6
7.2 Determination of initial contamination level with respect to particle concentration.....	6
7.3 Determination of initial contamination level with respect to chemical concentration.....	6
8 Other requirements	7
9 Selection of a cleaning methodology	7
9.1 Selection procedure.....	7
9.2 Cleaning methodologies.....	7
9.2.1 Cleaning method.....	7
9.2.2 Categories of cleaning techniques.....	7
9.3 Cleaning process.....	8
10 Material compatibility check	8
11 Cleaning validation	8
11.1 General.....	8
11.2 Cleaning efficiency.....	9
11.2.1 Evaluation.....	9
11.2.2 Cleaning efficiency with respect to particle concentration.....	10
11.2.3 Cleaning efficiency with respect to chemical contamination.....	11
11.3 Cleaning appropriateness.....	11
11.3.1 Assessment.....	11
11.3.2 Cleaning appropriateness with respect to particle concentration.....	12
11.3.3 Cleaning appropriateness with respect to chemical concentration.....	13
12 Measurement methods	14
12.1 General.....	14
12.2 Direct measurement methods.....	14
12.2.1 General.....	14
12.2.2 Direct measurement methods with respect to SCP.....	14
12.2.3 Direct measurement methods with respect to SCC.....	14
12.3 Indirect measurement methods.....	14
12.3.1 General.....	14
12.3.2 Indirect measurement methods with respect to SCP.....	15
12.3.3 Indirect measurement methods with respect to SCC.....	15
13 Documentation	15
Annex A (informative) Aspects of cleaning	17
Annex B (informative) Cleaning methods	18
Annex C (informative) Material compatibility with cleaning agents	25
Annex D (informative) Cleanliness measurement	27

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This second edition cancels and replaces the first edition (ISO 14644-13:2017), of which it constitutes a minor revision. The changes are as follows:

- term class (classification, classified) changed to levels or assessment where appropriate;
- updated document titles and issue dates where appropriate;
- minor editorial changes;
- removed references not cited in the document.

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The term surface refers to the interface between two phases. For the purpose of this document, the surface is a solid. A “clean surface” is where one or more of the contamination categories (particles, chemical) are under control due to cleaning/decontamination. The degree of cleanliness is specified in the corresponding surface cleanliness levels (see ISO 14644-9 and ISO 14644-10). Different cleaning methods are necessary depending on the degree of cleanliness (cleanliness level) required. This document gives guidance on the selection of cleaning methods to achieve specified cleanliness levels. For the selection procedure, the aspects of surface description, cleanliness specifications, types of contamination, cleaning techniques, material compatibility, and assessment methodology are taken into consideration. Most of the methods are suitable for removal of more than one contamination category at the same time; therefore, a common standard for the selection of a cleaning method for both particles, as well as chemical contamination, is needed.