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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 25915.13-2022

**Cleanrooms and associated controlled environments - Part 13:
Cleaning of surfaces to achieve defined levels of cleanliness in
terms of particle and chemical classifications**

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document is part 13 of GB/T 25915 "Clean Room and Related Controlled Environment". GB/T 25915 has issued the following part.

- Part 1. Classification of air cleanliness by particle concentration;
- Part 2. Monitoring of air particle concentration in clean rooms;

- Part 3.Detection methods;
- Part 4.Design, construction, start-up;
- Part 5.Operation;
- Part 6.Vocabulary;
- Part 7.Isolation device (clean air hood, glove box, isolator, micro-environment);
- Part 8.Classification of air cleanliness (ACC) grades by chemical concentration;
- Part 9.Classification of surface cleanliness by particle concentration;
- Part 10.Classification of surface cleanliness by chemical concentration;
- Part 12.Technical requirements for monitoring the concentration of nanoparticles in the air;
- Part 13.Surface cleaning to meet particle and chemical cleanliness requirements;
- Part 14.Evaluation of equipment suitability by particle concentration;
- Part 15.Evaluate the suitability of equipment and materials according to the concentration of gaseous chemicals.

This document is equivalent to ISO 14644-13:2017 "Clean rooms and related controlled environments - Part 13.Achieving particle and chemical cleanliness

Required Surface Cleaning".

The following minimal editorial changes have been made to this document.

---Corrected the step number error in 4.2, will "should start from step 1 to check the compatibility of the cleaning method with the material (step 6). Finally

After (step 7) method verification should be carried out" to "should start from step 1 to check the compatibility of the cleaning method with the material (step 6,

7). Finally (step 8) method validation should be performed. "

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

GB/T 25915 adopts the ISO 14644 series of international standards, and the settings of each part are consistent with the international standards. It is proposed to be composed of 15 parts

constitute.

--- Part 1. Classification of air cleanliness by particle concentration. The purpose is to differentiate the degree of particle contamination.

--- Part 2. Monitoring of air particle concentration in clean rooms. The purpose is to guide the monitoring of particle contamination to avoid possible contamination risk.

--- Part 3. Detection method. The purpose is to guide the detection of various pollution and related environmental elements in the clean room.

--- Part 4. Design, construction, start-up. The purpose is to guide the design, construction and start-up of clean rooms.

--- Part 5. Operation. The purpose is to guide the operation of the clean room.

--- Part 6. Vocabulary. The purpose is to unify and standardize technical terms.

--- Part 7. Isolation device (clean air hood, glove box, isolator, micro-environment). The aim is to propose the basis for isolators for cleanrooms

This requirement.

--- Part 8. Classification of air cleanliness (ACC) by chemical concentration. The purpose is to distinguish the degree of air chemical pollution.

--- Part 9. Classification of surface cleanliness by particle concentration. The purpose is to differentiate the degree of surface particle contamination.

--- Part 10. Classification of surface cleanliness by chemical concentration. The purpose is to differentiate the degree of chemical contamination of the surface.

--- Part 12. Technical requirements for monitoring the concentration of nanoparticles in the air. The aim is to propose the detection of particle contamination at the nanoscale

Require.

--- Part 13. Surface cleaning to achieve particle and chemical cleanliness requirements. The purpose is to put forward the cleaning requirements for the surface of the clean room to Avoid the risk of possible particle and chemical contamination.

--- Part 14. Assessment of equipment suitability by particle concentration. The purpose is to pass the relevant equipment that may generate particle contamination in the clean room

A test to determine the suitability of the device.

--- Part 15. Evaluate the suitability of equipment and materials according to the concentration of gaseous chemicals. The purpose is to make possible

Tests for gaseous chemical contamination in clean rooms to determine the suitability of

equipment and materials.

--- Part 16.Improve the energy efficiency of clean rooms and air purification devices. The aim is to save energy consumption in clean room operation.

The term "surface" generally refers to the interface between two phases. Surface herein refers specifically to a solid surface. A "clean surface" is one or more types of pollution (particle contamination, chemical contamination) controlled surfaces. Cleanliness grades are specified in ISO 14644-9 and ISO 14644-10.cleanliness

(Cleanliness class) depends on the cleaning method. This article is a guide for selecting a cleaning method to achieve a specified degree of cleanliness. When choosing a cleaning protocol to

Consider. surface condition, cleaning requirements, type of contamination, cleaning techniques, material compatibility, evaluation methods, etc. Most cleaning methods can be

When cleaning more than one type of contamination, it is necessary to develop a cleaning option that applies to both particle and chemical contamination.

common standard of approach.

Cleanrooms and related controlled environments

Part 13.Achieving particle and chemical cleanliness

required surface cleaning

1 Scope

This document provides guidance on the cleaning of cleanroom surfaces, equipment surfaces and material surfaces to achieve the required cleanliness. Surface references in this document

and all surfaces (exterior, interior).

This document provides Particle Concentration (SCP) and Surface Chemical Cleanliness (SCC) cleanliness for assessing Surface Cleanliness

The required cleaning methods, and the cleaning techniques that should be considered to achieve the specified cleanliness.

ISO 14644.9 and ISO 14644.10 give the suitability rate and related detection methods of cleaning technology.

This document contains the following general guidelines.

--- Surface target cleanliness level;

--- Applicability of the cleaning method;