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(JACA/JSA)

**Cleanrooms and associated  
controlled environments—Part 1:  
Classification of air cleanliness by  
particle concentration**

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In the event of any doubts arising as to the contents,  
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## Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Air Cleaning Association (JACA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Consequently **JIS B 9920:2002** has been withdrawn and partially replaced with this Standard.

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Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

**JIS B 9920** series consists of the following 2 parts under the general title *Cleanrooms and associated controlled environments*:

*Part 1: Classification of air cleanliness by particle concentration*

*Part 2: Monitoring to provide evidence of cleanroom performance related to air cleanliness by particle concentration*

# Cleanrooms and associated controlled environments—Part 1: Classification of air cleanliness by particle concentration

## Introduction

This Japanese Industrial Standard has been prepared based on **ISO 14644-1:2015**, Edition 2, with some modifications of the technical contents.

The dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JD.

## 1 Scope

This Standard specifies the classification of air cleanliness in terms of concentration of airborne particles in cleanrooms and clean zones, and separative devices as defined in **JIS B 9917-7**.

Only particle populations having cumulative distributions based on threshold (lower limit) particle sizes ranging from 0.1  $\mu\text{m}$  to 5  $\mu\text{m}$  are considered for classification purposes.

The use of light scattering airborne particle counters (LSAPCs) is the basis for determination of the concentration of airborne particles at designated sampling locations. Concentrations of ultrafine particles (particles smaller than 0.1  $\mu\text{m}$ ) will be addressed in a separate standard. An M descriptor (see Annex C) may be used to quantify populations of macroparticles (particles larger than 5  $\mu\text{m}$ ).

This Standard cannot be used to characterize the physical, chemical, radiological, viable or other nature of airborne particles.

**NOTE** The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 14644-1:2015 *Cleanrooms and associated controlled environments—Part 1: Classification of air cleanliness by particle concentration* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 9917-3 *Cleanrooms and associated controlled environments—Part 3: Test methods*

JIS B 9917-7 *Cleanrooms and associated controlled environments—Part 7: Separative devices (clean air hoods, gloveboxes, isolators and mini-environments)*