

Foreword

NIST Handbook 44 was first published in 1949, having been preceded by similar handbooks of various designations and in several forms, beginning in 1918.

NIST Handbook 44 is published in its entirety each year following the Annual Meeting of the National Conference on Weights and Measures (NCWM). The Committee on Specifications and Tolerances of the NCWM developed the 2019 edition with the assistance of the Office of Weights and Measures (OWM) of the National Institute of Standards and Technology (NIST). This handbook includes amendments endorsed by the 103rd National Conference on Weights and Measures during its Annual Meeting in 2018.

NIST has a statutory responsibility for “cooperation with the states in securing uniformity of weights and measures laws and methods of inspection.” In partial fulfillment of this responsibility, NIST is pleased to publish these recommendations of the NCWM.

This handbook conforms to the concept of primary use of SI (metric) measurements recommended in the Omnibus Trade and Competitiveness Act of 1988 by citing SI units before U.S. customary units where both units appear together and placing separate sections containing requirements in SI units before corresponding sections containing requirements in U.S. customary units. In some cases, however, trade practice is currently restricted to the use of U.S. customary units; therefore, some requirements in this handbook will continue to specify only U.S. customary units until the NCWM achieves a broad consensus on the permitted SI units.

In accord with NIST policy, the meter/liter spellings are used in this document. However, the metre/litre spellings are acceptable, and are preferred by the NCWM.

It should be noted that a space has been inserted instead of commas in all numerical values greater than 9999 in this document, following a growing practice, originating in tabular work, to use spaces to separate large numbers into groups of three digits. This avoids conflict with the practice in many countries to use the comma as a decimal marker.

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