NATIONAL COUNCIL ON WEIGHTS AND MEASURES
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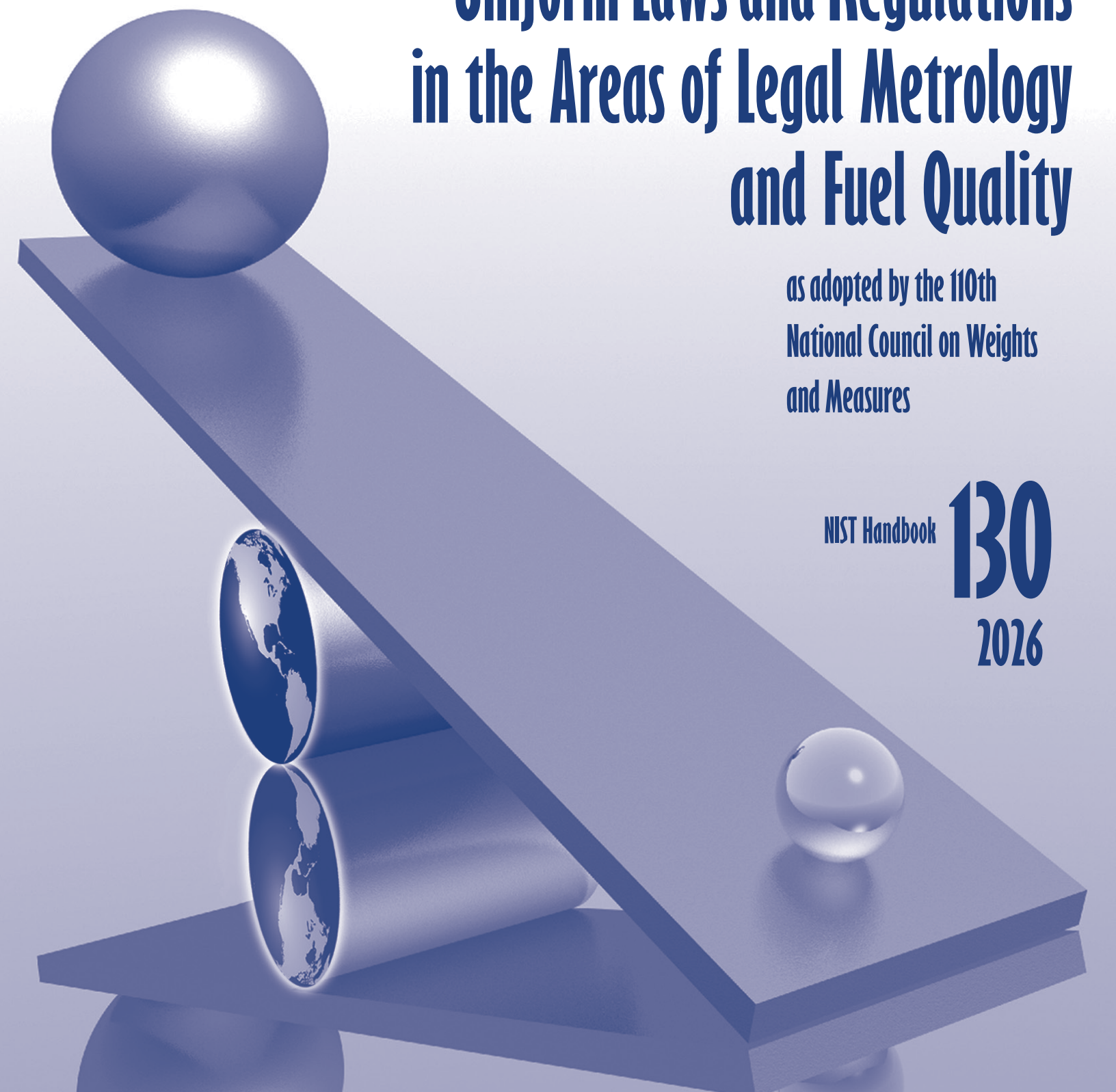
NIST OFFICE OF WEIGHTS AND MEASURES

Uniform Laws and Regulations in the Areas of Legal Metrology and Fuel Quality

as adopted by the 110th National Council on Weights and Measures



NIST Handbook 130

2026

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Uniform Laws and Regulations in the Areas of Legal Metrology and Fuel Quality

as adopted by the
110th National Council on Weights and Measures

John T. McGuire
David A. Sefcik
Loren Minnich
Isabel Chavez Baucom
Katrice A. Lippa
Physical Measurement Laboratory
Office of Weights and Measures

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December 2025

U.S. Department of Commerce
Howard Lutnick, Secretary

National Institute of Standards and Technology
Craig Burkhardt, Acting Under Secretary of Commerce for Standards and Technology and Acting NIST Director

NIST OFFICE OF WEIGHTS AND MEASURES

Certain commercial entities, equipment, or materials may be identified in this document to describe an experimental procedure or concept adequately. Such identification is not intended to imply recommendation or endorsement by the National Institute of Standards and Technology (NIST), nor is it intended to imply that the entities, materials, or equipment are necessarily the best available for the purpose.

This handbook promotes the primary use of the International System of Units (SI) by citing SI units before U.S. customary units where both units appear together, and by placing separate sections containing requirements for SI units before corresponding sections containing requirements for 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 National Council on Weights and Measures (NCWM) achieves a broad consensus on the permitted metric units.

Marijuana (also referred to as cannabis) remains a Schedule I substance under the Controlled Substances Act. As with all materials, the NIST Office of Weights and Measures (OWM) provides technical analysis and any relevant expertise to help ensure that the standards as developed through the NCWM process are technically sound. As such, NIST publishes the adopted model regulations for cannabis and cannabis-containing commodities by the NCWM in the NIST Handbook 130 as part of NIST's statutory mission to promote uniformity in state laws, regulations, and testing procedures.*

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NIST Author ORCID iDs
JT McGuire: 0009-0006-7396-155X
DA Sefcik: 0000-0001-7407-1950
LB Minnich: 0009-0006-8082-2726
ICh Baucom: 0009-0004-8989-2021
KA Lippa: 0000-0001-8651-8326

Contact Information
owm@nist.gov
NIST Office of Weights and Measures
Attention: Publications Coordinator
100 Bureau Drive, MS 2600
Gaithersburg, MD 20899

* NIST does not have a policy role related to the legalization of the production, sale, distribution, or use of cannabis (including hemp and marijuana).

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Abstract

NIST Handbook 130 includes a compilation of model laws and regulations and related interpretations and guidelines designed to encourage uniformity in the adoption and implementation of weights and measures laws and regulations. The model laws and regulations included in NIST Handbook 130 are adopted in various forms by many state, local, and some federal weights and measures authorities. Some authorities adopt the current versions as written; some use them as the basis of adoption, but from an earlier year; some use them as a guideline only; some elect to use their own laws or regulations; and some have no corresponding law or regulation in place.

The National Institute of Standards and Technology (NIST) has a statutory responsibility to promote "cooperation with the states in securing uniformity in weights and measures laws and method of inspection" and publishes this and other NIST Handbooks in partial fulfillment of this responsibility.

This 2026 edition includes amendments made through the Committee on Laws and Regulations of the NCWM with technical guidance from the Office of Weights and Measures (OWM) of NIST and input from weights and measures officials and industry representatives. These amendments were adopted by the NCWM at its 110th Annual Meeting in July 2025.

At the 1983 Annual Meeting, the NCWM voted to change the title of Handbook 130 from “Model State Laws and Regulations” was to be changed to “Uniform Laws and Regulations” to reflect that these Laws and Regulations are (a) intended to be standards rather than just guidelines, and (b) intended for adoption by political subdivisions other than states when deemed appropriate. In 1995 the title was changed to Uniform Laws and Regulations in the areas of legal metrology and motor fuel quality. In the 1997 Edition of Handbook 130 was changed from "Uniform Laws and Regulations the words “motor fuel quality" was changed to “engine fuel quality" to reflect changes made to the Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Law and Regulation. In 2018, the scope of the Fuels regulation was expanded to encompass the changing fuels in the marketplace, and the title to the Handbook was changed to how it appears today.

Keywords

automotive lubricants; fuels; labeling; laws and regulations; measuring; method of sale; NTEP; packaging; price verification; registration of servicepersons; type evaluation; unit pricing; weighing; weighmaster law; weights and measures law.

Author Contributions

John T. McGuire: Data Curation, Writing - Reviewing and Editing; **David A. Sefcik:** Data Curation, Writing – Reviewing; **Loren Minnich:** Reviewing and Editing; **Isabel Chavez Baucom**: Reviewing and Editing; **Katrice A. Lippa**: Supervision.

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Committee on Laws and Regulations of the
110th National Council on Weights and Measures

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Mauricio Mejia, Florida
Mike Harrington, Iowa
Austin Shepherd, San Diego County, California
Michael Peeler, New Jersey

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This publication is available free of charge from https://doi.org/10.6028/NIST.HB.130-2026

Main Table of Contents

Abstract i

Author Contributions i

Acknowledgments ii

I. Introduction 1
- A. Source 3
- B. Purpose 3
- C. Amendments 3
- D. Annual Meeting 4
- E. Final Committee Reports and Conference Action 4
- F. Revisions to the Handbook 4
- G. Annotation 4
- H. Effective Enforcement Dates of Regulations 4
- I. Section References 5
- J. The International System of Units 5
- K. "Mass" and "Weight" 5
- L. Use of the Terms "Mass" and "Weight" 6
- M. Form 15: Proposal to Amend NIST Handbooks 7

II. Uniformity of Laws and Regulations 9
- A. National Council Goal 11
- B. Status of Promulgation 11
- C. Summary of State Laws and Regulations in Weights and Measures (as of November 1, 2025) 11

III. Uniform Laws 15
- A. Uniform Weights and Measures Law 17
- B. Uniform Weighmaster Law 33
- C. Uniform Fuels and Automotive Lubricants Inspection Law 45

IV. Uniform Regulations 53
- A. Uniform Packaging and Labeling Regulation 55
- B. Uniform Regulation for the Method of Sale of Commodities 101
- C. Uniform Unit Pricing Regulation 151
- D. Uniform Regulation for the Voluntary Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices 159
- E. Uniform Regulation for National Type Evaluation 167
- F. Uniform Fuels and Automotive Lubricants Regulation 177
- G. Uniform E-Commerce Regulation 211

V. Examination Procedure for Price Verification 229

VI. NCWM Policy, Interpretations, and Guidelines 261

Appendix A. Index 303

Appendix B. Amendments 319

Appendix C. Editorial Changes 323

This publication is available free of charge from https://doi.org/10.6028/NIST.HB.130-2026

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Table of Contents

I. Introduction 3
A. Source 3
B. Purpose 3
C. Amendments 3
D. Annual Meeting 4
E. Final Committee Reports and Conference Action 4
F. Revisions to the Handbook 4
G. Annotation 4
H. Effective Enforcement Dates of Regulations 4
I. Section References 5
J. The International System of Units 5
K. “Mass” and “Weight” 5
L. Use of the Terms “Mass” and “Weight” 6
M. Form 15: Proposal to Amend NIST Handbooks 7

This publication is available free of charge from https://doi.org/10.6028/NIST.HB.130-2026

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I. Introduction

A. Source

The Uniform Laws and Regulations in this handbook comprise all of those adopted by the National Council on Weights and Measures, Inc. (NCWM) at the 2025 Annual Meeting in July. During that meeting, the members of NCWM voted to adopt a corporate name change. Effective August 13, 2024, the National Conference on Weights and Measures (NCWM) became the National Council on Weights and Measures (NCWM). Every effort has been made to incorporate this name change into the NIST Handbooks and other relevant publications. The name "National Conference on Weights and Measures" still appears in areas of NIST handbooks where the content references the name prior to the change to "National Council on Weights & Measures. For more information, please visit the NCWM History page (**www.ncwm.com/history**).

Contact NCWM at:

9011 South 83rd Street	Phone: (402) 434-4880	E-mail: **info@ncwm.com**
Lincoln, NE 68516	Fax: (402) 434-4878	URL: **www.ncwm.com**

The NCWM is supported by the National Institute of Standards and Technology (NIST), which provides its Executive Secretary and publishes its documents. NIST also develops technical publications for use by weights and measures agencies; these publications may subsequently be endorsed or adopted by the NCWM or its members.

All of the Uniform Laws and Regulations given herein are recommended by NCWM for adoption by states when reviewing or amending their official laws and regulations in the areas covered. A similar recommendation is made with regard to the local jurisdictions within a state in the absence of the promulgation of such laws and regulations at the state level.

(Amended 2015, 2019, and 2024)

B. Purpose

The purpose of these Uniform Laws and Regulations is to achieve, to the maximum extent possible, uniformity in weights and measures laws and regulations among the various states and local jurisdictions in order to facilitate trade between the states, permit fair competition among businesses, and provide uniform and sufficient protection to all consumers in commercial weights and measures practices.

C. Amendments

Proposed amendments to NIST Handbook 130 are deliberated and developed by NCWM's Committee on Laws and Regulations before presentation to the general membership for vote. In some instances, amendments that significantly affect other NIST Handbooks may be processed jointly by two or more committees.

Amendments to the handbooks are made in accordance with NCWM procedures and policies. The process begins at the regional weights and measures association meetings in the fall of each year and it is culminated at the NCWM Annual Meeting in July. After passing through one or more of the regional associations, the proposed amendment is placed on the agenda of the appropriate NCWM committee for consideration at the NCWM's Interim Meeting in January, and after final deliberation and development by the committee, the amendment may be presented to the membership for a vote at the annual NCWM meeting in July. NCWM policy provides for exceptions to the process to accommodate urgent or priority items. NIST staff provides technical assistance and advice throughout the process.

The policy is available on the NCWM website at **www.ncwm.com**. For information on the regional weights and measures associations, visit **www.ncwm.com/meetings**.

(Amended 2015 and 2019)

D. Annual Meeting

1. The Committee will hold a public hearing at the Annual Meeting to discuss items on its agenda.

2. Those who want to speak on an item during the public hearing should request time from the Committee Chairman. The Committee Chairman may impose time limits on presentations, the discussion of a question, or the discussion of a proposed amendment.

E. Final Committee Reports and Conference Action

1. Following the public hearings, the Committee will prepare its final report for action by the voting membership of the Conference. Copies of the final report will be provided to the membership prior to the voting session for that report.

2. The Chairman of the Committee will present the final report of the Committee to the Conference body. A vote will be taken on items, proposals, or sections in the report as circumstances require. The Conference will vote on the entire final report as presented in accordance with the established Council's voting procedures. Parliamentary procedures according to Robert's Rules of Order, as amended by NCWM Bylaws, must be adhered to in the presentation of, and any action on, a Standing Committee report.

   (Amended 1998)

F. Revisions to the Handbook

NIST may not publish a new edition if it determines that it is reasonable to forego an annual publication (e.g., amendments were minor or editorial in nature) to save printing, mailing, and other costs. If this occurs, NIST will issue a notice that the current edition is still valid and will explain its action.

(***NOTE:*** Section numbering may be changed from one edition of the handbook to another to accommodate additions or deletions.)

(Amended 2008)

G. Annotation

Beginning in 1971, amendments or additions to sections in the Uniform Laws and Regulations are delineated at the end of each section (e.g., "amended 1982") as a service to those states that are planning to update their own laws or regulations. The references to each revision and the year will enable legislators and rule makers to study the actual wording and rationale for changes (appearing in the Annual Report of NCWM for that year) and subsequently adopt changes in their own laws and regulations, modeling them after the Uniform Laws and Regulations.

H. Effective Enforcement Dates of Regulations

Unless otherwise specified, the new or amended regulations listed in this section are intended to become effective and subject to enforcement on January 1 of the year following adoption by NCWM.

1. Uniform Packaging and Labeling Regulation

2. Uniform Regulation for the Method of Sale of Commodities

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3. Uniform Unit Pricing Regulation

4. Uniform Regulation for the Voluntary Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices

5. Uniform Regulation for National Type Evaluation

6. Uniform Fuels and Automotive Lubricants Regulation

7. Uniform E-commerce Regulation (effective date of enforcement January 1, 2025)

(Added 1992) (Amended 2021 and 2023)

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I. Section References

In most references made to specific sections or subsections in this handbook, the word "Section" is used, followed by the section number.

J. The International System of Units

The "International System of Units," "SI," or "SI Units" means the modernized metric system as established in 1960 by the General Conference on Weights and Measures (CGPM). In 1988, Congress amended the Metric Conversion Act of 1975 (refer to Section 5164 of Public Law 100-418) to declare that it is the policy of the United States to designate the metric system of measurement as the preferred measurement system for U.S. trade and commerce, and it further defined "the metric system of measurement" to be the International System as established by the CGPM and as interpreted or modified for the United States by the Secretary of Commerce. [refer to Metric Conversion Law 15 U.S.C. 205, NIST Special Publication 330 "The International System of Units (SI)"; NIST Special Publication 814 "Metric System of Measurement; and, Interpretation of the International System of Units for the United States" in Federal Register of May 16, 2008, ("Federal Register" Vol. 73, No. 96) or subsequent revisions]. In 1992, Congress amended the Federal Fair Packaging and Labeling Act to require certain consumer commodities to include the appropriate SI units along with the U.S. customary units in their quantity statements.

(Added 1993) (Revised 2008 and 2019)

K. "Mass" and "Weight" [see Section K. NOTE]

The mass of an object is a measure of the object's inertial property, or the amount of matter it contains. The weight of an object is a measure of the force exerted on the object by gravity, or the force needed to support it. The pull of gravity on the earth gives an object a downward acceleration of about 9.8 m/s^2. In trade and commerce and everyday use, the term "weight" is often used as a synonym for "mass." The "net mass" or "net weight" declared on a label indicates that the package contains a specific amount of commodity exclusive of wrapping materials. The use of the term "mass" is predominant throughout the world, and is becoming increasingly common in the United States.

(Added 1993)

Section K. NOTE: When used in this law (or regulation), the term "weight" means "mass." (see paragraphs K. "Mass" and "Weight" and L. Use of the Terms "Mass" and "Weight" in Section I. Introduction of NIST Handbook 130 for an explanation of these terms.)

(Note Added 1993)

L. Use of the Terms "Mass" and "Weight" [see Section K. NOTE]

When used in this handbook, the term "weight" means "mass." The term "weight" appears when U.S. customary units are cited or when both U.S. customary and SI units are included in a requirement. The terms "mass" or "masses" are used when only SI units are cited in a requirement. The following note appears where the term "weight" is first used in a law or regulation.

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National Council on Weights and Measures / National Type Evaluation Program

Form 15: Proposal to Amend NIST Handbooks, Guidance Documents, NCWM Bylaws or NCWM Publication 14

Email proposals in Microsoft Word format to info@ncwm.com by August 15.

Each Regional Association will hold hearings on proposals in the fall. See meeting dates at **www.ncwm.com/meetings**. If any region deems that the item has merit, the region will forward the item to NCWM for national consideration. For more information on the Form 15 process, visit **www.ncwm.com/standards-dev**.

GENERAL INFORMATION			
1. Proposal to: __ Laws & Regulations __ Specifications & Tolerances __ Professional Development __ Board of Directors __ NTEP Committee			
2. Submitter's Name:		**3. Date:**	
4. Submitter's Organization:	**5. Address:**		
6. City:	**7. State:**	**8. Zip Code:**	**9. Country:**
10. Phone Number:	**11. Fax Number:**	**12. Email Address:**	

PROPOSAL INFORMATION
13. Purpose: Concise statement as to the intent or purpose of this proposal, such as problem being fixed. **(Do not include justification here.)**
14. Document to be Amended:
__ Handbook 44 __Handbook 130 __ Handbook 133 __NCWM Guidance Document __ NCWM Bylaws __ NTEP Administrative Policy
15. Cite portion to be Amended: Submit a separate Form 15 for each code, model law or regulation to be amended.
Section: Paragraph:
16. Proposal: Use ~~**strikeout**~~ to show words to be deleted and **<u>underline</u>** to show new words. **(Do not use track changes.)**
17. For Handbook 44 proposals, indicate one of the following:
☐ **Retroactive** (Enforceable with respect to all devices) ☐ **Nonretroactive** (Enforceable on or after the effective date for devices a) manufactured within a state after the effective date, b) both new and used equipment brought into a state after the effective date, c) used in noncommercial applications which are placed into commercial use after the effective date, ad d) undergoing type evaluation including devices that have been modified to the extent that a new NTEP Certificate of Conformance is required.)
18. Justification: Include national importance, background on the issue, and reference to supporting data or documents.
19. Possible Opposing Argument's: Demonstrate that you are aware and have considered possible opposition.
20. Requested Action if Considered for NCWM Agenda:
__ Voting Item __ Developing Item __ Informational Item __ Other (Please Describe):
21. List of Attachments:

Submit Form via Email to: don.onwiler@ncwm.com Revised: June 2023

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Table of Contents

II. Uniformity of Laws and Regulations 11

A. National Council Goal 11

B. Status of Promulgation 11

C. Summary of State Laws and Regulations in Weights and Measures (as of November 1, 2025) 11

This publication is available free of charge from https://doi.org/10.6028/NIST.HB.130-2026

This publication is available free of charge from https://doi.org/10.6028/NIST.HB.130-2026

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This publication is available free of charge from https://doi.org/10.6028/NIST.HB.130-2026

Table of Contents

A. Uniform Packaging and Labeling Regulation 55

1. Background 55

2. Status of Promulgation 56

Table of Contents 57

Preamble 61

Section 1. Application 61

Section 2. Definitions 61

2.1. Package. 61
2.2. Consumer Package of Consumer Commodity. 61
2.3. Non-Consumer Package: Package of Non-Consumer Commodity. 62
2.4. Random Package. 62
2.5. Label. 62
2.6. Person. 62
2.7. Principal Display Panel or Panels. 62
2.8. Multiunit Package. 62
2.9. Combination Package. 62
2.10. Variety Package. 62
2.11. Petroleum Products. 63
2.12. Spot Label. 63
2.13. Header Strip. 63
2.14. Standard Package. 63
2.15. SI or SI Units. 63

Section 3. Declaration of Identity: Consumer Package 64

3.1. Declaration of Identity: Consumer Package. 64
3.1.1. Parallel Identity Declaration: Consumer Package. 64

Section 4. Declaration of Identity: Non-Consumer Package 64

Section 5. Declaration of Responsibility: Consumer and Non-Consumer Packages 64

Section 6. Declaration of Quantity: Consumer Packages 65

6.1. General. 65
6.2. Largest Whole Unit. 65
6.3. Net Quantity. 65
6.3.1. Use of “Net Mass” or “Net Weight.” 65
6.3.2. Use of “Net Contents”. 66
6.3.3. Lines of Print or Type. 66
6.4. Terms: Weight, Measure, Volume, or Count. 66
6.4.1. Combination Declaration. 66

6.5. SI Units: Mass, Measure. 66
6.5.1. Symbols. 68
6.5.2. Fractions and Prefixes. 68
6.6. Prescribed Units, SI. [see *Section 6.1. NOTE*] 69
6.6.1. Less than 1 Meter, 1 Square Meter, 1 Kilogram, 1 Cubic Meter, or 1 Liter. 69
6.6.2. One Meter, 1 Square Meter, 1 Kilogram, 1 Liter, 1 Cubic Meter, or More. 69
6.7. U.S. Customary Units: Weight, Measure. 70
6.7.1. Symbols and Abbreviations. 70
6.7.2. Units of Two or More Meanings. 71
6.8. Prescribed Units, U.S. Customary System. 71
6.8.1. Less than 1 foot, 1 square foot, 1 pound, or 1 pint. 71
6.8.2. One Foot, 1 Square Foot, 1 Pound, 1 Pint, 1 Gallon, or More. 71
6.9. Bi-dimensional Commodities. 72
6.10. Count: Ply. 73
6.11. Fractions. 73
6.12. Supplementary Quantity Declarations. 74
6.13. Rounding. 74
6.14. Qualification of Declaration Prohibited. 74
6.15. Character of Declaration: Average. 74
6.16. Random Packages. 74
Section 7. Declaration of Quantity: Non-Consumer Packages 75
7.1. General. 75
7.2. Location. 75
7.3. Terms: Weight, Liquid Measure, Dry Measure, or Count. 75
7.4. SI Units: Mass, Measure. 75
7.4.1. Symbols. 76
7.5. U.S. Customary Units: Weight, Measure. 76
7.5.1. Symbols and Abbreviations. 76
7.6. Character of Declaration: Average. 76
Section 8. Prominence and Placement: Consumer Packages 76
8.1. General. 76
8.1.1. Location. 77
8.1.2. Style of Type or Lettering. 77
8.1.3. Color Contrast. 77
8.1.4. Free Area. 77
8.1.5. Parallel Quantity Declaration. 77
8.2. Calculation of Area of Principal Display Panel for Purposes of Type Size. 77
8.2.1. Minimum Height of Numbers and Letters. 79
8.2.2. Numbers and Letters: Proportion. 79
Section 9. Prominence and Placement: Non-Consumer Packages 79
9.1. General. 79

This publication is available free of charge from https://doi.org/10.6028/NIST.HB.130-2026

Section 10. Requirements: Specific Consumer Commodities, Non-Consumer Commodities, Packages, Containers 79

10.1. Display Card Package 79

10.2. Eggs 80

10.3. Aerosols and Other Pre-pressurized Containers Dispensing Product Under Pressure. 80

10.4. Multiunit Packages. [see *Section 10.4. NOTE*] 80

10.5. Combination Packages. 80

10.6. Variety Packages. 81

10.7. Cylindrical Containers. 82

10.8. Measurement of Container-Type Commodities, How Expressed. 82

10.8.1. General. 82

10.8.2. Capacity. 83

10.8.3. Terms. 83

10.9. Textile Products, Threads, and Yarns. 83

10.9.1. Wearing Apparel. 83

10.9.2. Textiles. 83

10.9.3. Sewing Threads, Handicraft Threads, and Yarns. 85

10.10. Packaged Seed. 85

10.11. ***Cannabis*** and ***Cannabis***-Containing Products 85

10.11.1. Definition. 85

10.11.2. Labeling. 85

Section 11. Exemptions [see *Section 11. NOTE*] 86

11.1. Random Packages. 86

11.1.1. Indirect Sale of Random Packages. 86

11.2. Small Confections. 87

11.3. Small Packages of Meat or Meat Products. 87

11.4. Individual Servings. 87

11.5. Cuts, Plugs, and Twists of Tobacco and Cigars. 87

11.6. Reusable (Returnable) Glass Containers. 87

11.7. Cigarettes and Small Cigars. 87

11.8. Packaged Commodities with Labeling Requirements Specified in Federal Laws and Regulations. 87

11.9. Fluid Dairy Products, Ice Cream, and Similar Frozen Desserts. 88

11.10. Single Strength and Less than Single-Strength Fruit Juice Beverages, Imitations thereof, and Drinking Water. 88

11.11. Soft Drink Bottles. 88

11.12. Multiunit Soft Drink Packages. 88

11.13. Butter. 88

11.14. Eggs. 89

11.15. Flour. 89

11.16. Small Packages. 89

11.17. Decorative Containers. 89

This publication is available free of charge from https://doi.org/10.6028/NIST.HB.130-2026

11.18. Combination and Variety Packages. ... 89
11.19. Margarine. ... 89
11.20. Corn Flour and Corn Meal. ... 89
11.21. Prescription and Insulin Containing Drugs. ... 89
11.22. Camera Film, Video Recording Tape, Audio Recording Tape, and Other Image and Audio Recording Media Intended for Retail Sale and Consumer Use. ... 89
11.23. Tint Base Paint. ... 90
11.24. Motor Oil in Cans. ... 90
11.25. Pillows, Cushions, Comforters, Mattress Pads, Sleeping Bags, and Similar Products. ... 90
11.26. Commodities' Variable Weights and Sizes. ... 91
11.27. Packaged Commodities Sold by Count. ... 91
11.28. Textile Packages. ... 91
11.29. Spot Label. ... 91
11.30. Header Strip. ... 91
11.31. Decorative Wallcovering Borders. ... 91
11.32. SI Units, Exemptions - Consumer Commodities. ... 92
11.33. U.S. Customary Units, Exemptions - Consumer Commodities. ... 92
11.34. Bacon. ... 92

Section 12. Variations to be Allowed ... 92

12.1. Packaging Variations. ... 92
12.1.1. Variations from Declared Net Quantity. ... 92
12.1.2. Variations Resulting from Exposure. ... 92
12.2. Magnitude of Permitted Variations. ... 93

Section 13. Revocation of Conflicting Regulations ... 93

Section 14. Effective Date ... 93

UPLR Appendix A: SI/U.S. Customary Conversion Factors ... 94**

UPLR Appendix B: Converting U.S. Customary Units to SI Units for Quantity Declarations on Packages ... 95

1. Conversion. ... 95

2. Rounding and Significant Digits. ... 95

3. Additional Advice on Rounding and Significant Digits. ... 96

UPLR Appendix C: Reference Information for Packaged Commodities with Labeling Requirements Specified in Federal Law and Regulation ... 99

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A. Uniform Packaging and Labeling Regulation

Preamble

The purpose of this regulation is to provide accurate and adequate information on packages as to the identity and quantity of contents so that purchasers can make price and quantity comparisons.

(Added 1989)

Section 1. Application

This regulation shall apply to packages, but shall not apply to:

(a) inner wrappings not intended to be individually sold to the customer;

(b) shipping containers or wrapping used solely for the transportation of any commodities in bulk or in quantity to manufacturers, packers, or processors, or to wholesale or retail distributors, but in no event shall this exclusion apply to packages of consumer or non-consumer commodities as defined herein;

(Added 1971)

(c) auxiliary containers or outer wrappings used to deliver packages of such commodities to retail customers if such containers or wrappings bear no printed matter pertaining to any particular commodity;

(d) containers used for retail tray pack displays when the container itself is not intended to be sold (e.g., the tray that is used to display individual envelopes of seasonings, gravies, etc., and the tray itself is not intended to be sold);

(e) open carriers and transparent wrappers or carriers for containers when the wrappers or carriers do not bear any written, printed, or graphic matter obscuring the label information required by this regulation; or

(f) packages intended for export to foreign countries.

(Amended 1994 and 1998)

Section 2. Definitions

2.1. Package. – Except as modified by Section 1. Application, the term "package," whether standard package or random package, means any commodity:

(a) enclosed in a container or wrapped in any manner in advance of wholesale or retail sale; or

(b) whose weight [see ***Section 2.1. NOTE***] or measure has been determined in advance of wholesale or retail sale. An individual item or lot of any commodity on which there is marked a selling price based on an established price per unit of weight or of measure shall be considered a package or packages.

(Amended 1988 and 1991)

Section 2.1. NOTE: When used in this law (or regulation), the term "weight" means "mass." (See paragraphs K. "Mass" and "Weight" and L. Use of the Terms "Mass" and "Weight" in Section I. Introduction of NIST Handbook 130 for an explanation of these terms.)

(Note Added 1993)

2.2. Consumer Package of Consumer Commodity. – A package that is customarily produced or distributed for sale through retail sales agencies or instrumentalities for consumption or use by individuals for the purposes of

personal care or in the performance of services ordinarily rendered in or about the household or in connection with personal possessions.

(Amended 1988 and 1991)

2.3. Non-Consumer Package: Package of Non-Consumer Commodity. – Any package other than a consumer package, and particularly a package intended solely for industrial or institutional use or for wholesale distribution.

(Amended 1988 and 1991)

2.4. Random Package. – A package that is one of a lot, shipment, or delivery of packages of the same consumer commodity with no fixed pattern of net contents.

(Amended 1988 and 1990)

2.5. Label. – Any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon or adjacent to a consumer commodity, or a package containing any consumer commodity, for purposes of branding, identifying, or giving any information with respect to the commodity or to the contents of the package, except that an inspector's tag or other non-promotional matter affixed to or appearing upon a consumer commodity shall not be considered a label requiring the repetition of label information required by this regulation.

(Amended 1988)

2.6. Person. – The term "person" means either singular or plural and shall include any individual, partnership, company, corporation, association, or society.

(Amended 1988)

2.7. Principal Display Panel or Panels. – That part, or those parts, of a label that is, or are, so designed as to most likely be displayed, presented, shown, or examined under normal and customary conditions of display and purchase. Wherever a principal display panel appears more than once on a package, all requirements pertaining to the "principal display panel" shall pertain to all such "principal display panels."

(Amended 1988)

2.8. Multiunit Package. – A package containing two or more individual packages of the same commodity, in the same quantity, intended to be sold as a multiunit package.

(Amended 1988 and 2022)

2.9. Combination Package. – A package intended for retail sale, containing two or more individual packages or units of dissimilar commodities.

Examples:
antiquing or housecleaning kit
sponge and cleaner
lighter fluid and flints

(Added 1989)

2.10. Variety Package. – A package intended for retail sale, containing two or more individual packages or units of similar, but not identical, commodities. Commodities that are generically the same, but that differ in weight, measure, volume, appearance, or quality, are considered similar, but not identical.

Examples:
two sponges of different sizes
plastic tableware, consisting of 4 spoons, 4 knives, and 4 forks

(Added 1989)

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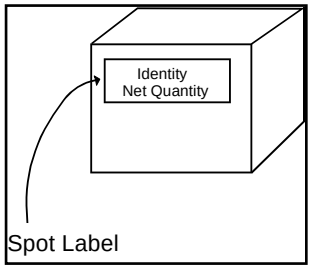
2.11. Petroleum Products. – Gasoline, diesel fuel, kerosene, or any product (whether or not such a product is actually derived from naturally occurring hydrocarbon mixtures known as "petroleum") commonly used in powering, lubricating, or idling engines or other devices, or is labeled as fuel to power camping stoves or lights. Therefore, sewing machine lubricant, camping fuels, and synthetic motor oil are "petroleum products" for the purposes of this regulation. Brake fluid, copier machine dispersant, antifreeze, cleaning solvents, and alcohol are not "petroleum products."

(Added 1987) (Amended 1988)

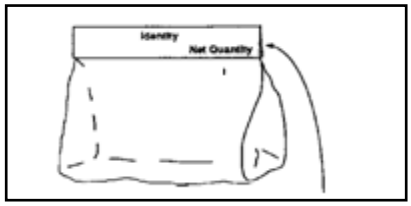
2.12. Spot Label. – A spot label is a label clearly defined by means of a border, indentation, or other means that covers only a small portion of the surface of a principal display panel of a package; the entire portion of the principal display panel outside the area of the label contains no printed or graphic matter of any kind. A spot label may contain all required labeling information (identity, responsibility, and net contents), but it must at least indicate the identity and net contents. See Exemptions, Section 11.29. Spot Label for net contents placement exemption for a spot label.



Spot Label

(Added 1990) (Amended 1991)

2.13. Header Strip. – A header label or header strip is a label that is attached across the top of a transparent or opaque bag or other container that bears no other printed or graphic material. See Exemptions, Section 11.30. Header Strip for net contents placement exemptions.



Header Strip

(Added 1990)

2.14. Standard Package. – A package that is one of a lot, shipment, or delivery of packages of the same commodity with identical net contents declarations.

Examples:
1 L bottles or 12 fl oz cans of carbonated soda
500 g or 5 lb bags of sugar
100 m packages of rope

(Added 1991)

2.15. SI or SI Units. – SI or SI Units means the International System of Units as established in 1960 by the General Conference on Weights and Measures (CGPM) and interpreted or modified for the United States by the Secretary of Commerce. See the "Interpretation of the International System of Units for the United States" in the "Federal Register" (Volume 73, No. 96, pages 28432 to 28433) for May 16, 2008, and 15 United States Code, Section 205a - 2051 "Metric Conversion." See also NIST Special Publication 330, The International System of Units (SI), 2019 edition and NIST Special Publication 811, Guide for the Use of the International System of Units (SI), 2008 edition that are available at **http://www.nist.gov/pml/owm/metric-publications** or by contacting **TheSI@nist.gov**.

(Added 1993) (Revised 2019)

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Section 3. Declaration of Identity: Consumer Package

3.1. Declaration of Identity: Consumer Package. – A separate declaration of identity [see ***Section 3.1. NOTE***] on a consumer package shall appear on the principal display panel and shall not be misleading or deceptive. The identity shall be in terms of:

(a) the name specified in or required by any applicable federal or state law or regulation or, in the absence of this;

(b) the common or usual name or, in the absence of this;

(c) the generic name or other appropriate description, including a statement of function (such as "cleaning powder").

(Amended 1990)

3.1.1. Parallel Identity Declaration: Consumer Package. – A declaration of the identity on a consumer package shall appear generally parallel to the base on which the package rests as it is designed to be displayed.

***Section 3.1. NOTE*:** Section 19.(a) of the Uniform Weights and Measures Law (and Food; exemptions from labeling, **21 C.F.R. § 101.100(b)(3)** for non-meat and non-poultry foods) specifically exempts food packages from identity statements if the commodity is a food, other than meat or poultry, that was repackaged in a retail establishment and the food is displayed to the purchaser under either of the following circumstances: "(1) its interstate labeling is clearly in view or with a counter card, sign, or other appropriate device bearing prominently and conspicuously the common or usual name of the food, or (2) the common or usual name of the food is clearly revealed by its appearance."

(Added 1986) (Amended 2001)

Section 4. Declaration of Identity: Non-Consumer Package

A declaration of identity [see ***Section 3.1. NOTE***] on a non-consumer package shall appear on the outside of a package and shall not be misleading or deceptive. The identity shall be in terms of:

(a) the name specified in or required by any applicable federal or state law or regulation or, in the absence of this;

(b) the common or usual name or, in the absence of this;

(c) the generic name or other appropriate description, including a statement of function (such as "cleaning powder").

(Amended 1990) (Note Added 1986)

Section 5. Declaration of Responsibility: Consumer and Non-Consumer Packages

Any package kept, offered, or exposed for sale, or sold at any place other than on the premises where packed shall specify conspicuously on the label of the package the name and address of the manufacturer, packer, or distributor. The name shall be the actual corporate name, or, when not incorporated, the name under which the business is conducted. The address shall include street address, city, state (or country if outside the United States), and ZIP Code (or the mailing code, if any, used in countries other than the United States); however, the street address may be omitted if it is listed in any readily accessible, well-known, widely published, and publicly available resource, including but not limited to a printed directory, electronic database, or website.

(Amendment effective December 17, 2015)

If a person manufactures, packs, or distributes a commodity at a place other than his principal place of business, the label may state the principal place of business in lieu of the actual place where the commodity was manufactured or packed or is to be distributed, unless such statement would be misleading. Where the commodity is not manufactured by the person whose name appears on the label, the name shall be qualified by a phrase that reveals the connection such person has with such commodity, such as "Manufactured for and packed by _____," "Distributed by _____," or any other wording of similar import that expresses the facts.

(Amended 2016)

Section 6. Declaration of Quantity: Consumer Packages

6.1. General. [see *Section 6.1. NOTE*] – The International System of Units (SI), known as the metric system and the U.S. customary system of weights and measures are recognized as proper systems to be used in the declaration of quantity. Effective February 14, 1994, appropriate units of both systems shall be presented in a declaration of quantity except as specified in Section 11.32. SI Units, Exemptions for Consumer Commodities and Section 11.33. U.S. Customary Units, Exemptions - Consumer Commodities.

(Amended 1985, 1990, 1993, and 1999)

***Section 6.1. NOTE*:** Packages subject to this Section and/or the Federal Fair Packaging and Labeling Act shall be labeled in units of the International System of Units (SI) and the U.S. customary system of measure effective February 14, 1994, [except for seed (see Section 10.10. Packaged Seed) and camera film and recording tape (see Section 11.22. Camera Film, Video Recording Tape, Audio Recording Tape and Other Image and Audio Recording Media Intended for Retail Sale and Consumer Use), and as specified in Section 11.32. SI Units, Exemptions - Consumer Commodities]. SI units may appear first.

(Note Added 1982) (Amended 1990 and 1993)

6.2. Largest Whole Unit. – Where this regulation requires that the quantity declaration be in terms of the largest whole unit, the declaration shall, with respect to a particular package, be in terms of the largest whole unit of weight or measure with any remainder expressed (following the requirements of Section 6.5.2. (a) Fractions and Section 6.11. Fractions):

(a) **SI Units.** – in decimal fractions of such largest whole unit.

(b) **U.S. Customary Units.**

(1) in common or decimal fractions of such largest whole unit; or

(2) in the next smaller whole unit or units with any further remainder in terms of common or decimal fractions of the smallest unit present in the quantity declaration.

6.3. Net Quantity. – A declaration of net quantity of the commodity in the package, exclusive of wrappers and any other material packed with such commodity (except as noted in Section 10.3. Aerosols and Other Pre-pressurized Containers Dispensing Product Under Pressure), shall appear on the principal display panel of a consumer package and, unless otherwise specified in this regulation (see Sections 6.6. Prescribed Units, SI, through 6.9. Bi-dimensional Commodities), shall be in terms of the largest whole unit.

6.3.1. Use of "Net Mass" or "Net Weight." – When stating the net quantity of contents in terms of weight a quantity declaration may stand alone [e.g., "200 g (7 oz)" or "1 lb (453 g)"] or may include the term "net mass" or "net weight" either preceding or following the declaration. The term "net" by itself may be used on food labels. However, the quantity of contents shall always declare the net quantity of contents even when such terms are not used.

(Amended 1993)

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6.3.2. Use of "Net Contents". – When stating the net quantity of contents in terms of fluid measure or numerical count, a quantity declaration may stand alone [e.g., "177 mL (6 fl oz)"] or may include the term "net" or "net contents" either preceding or following the declaration.

(Amended 2019)

6.3.3. Lines of Print or Type. – A declaration of quantity may appear on one or more lines of print or type.

(Amended 1982)

6.4. Terms: Weight, Measure, Volume, or Count. – The declaration of the quantity shall be expressed in terms of Table 6.4. Weight, Measure, Volume or Count:

Table 6.4. Weight, Measure, Volume, or Count

If the commodity is:	**The declaration of the quantity of a particular commodity shall be expressed in terms of:**
solid, semisolid, viscous, or a mixture of solid and liquid	weight or mass
liquid	fluid volume measure
dry	dry measure
or labeled by linear measure or area	linear measure or area
or labeled by numerical units (count)	numerical count

However, if there exists a firmly established general consumer usage and trade custom with respect to the terms used in expressing a declaration of quantity of a particular commodity, such a declaration of quantity may be expressed in its traditional terms, provided such traditional declaration gives accurate and adequate information as to the quantity of the commodity. Any net content statement that does not permit price and quantity comparisons is forbidden.

(Amended 1989 and 2015)

6.4.1. Combination Declaration.

(a) A declaration of quantity in terms of weight or volume shall be combined with appropriate declarations of the measure, count, and size of the individual units unless a declaration of weight alone is fully informative.

(b) A declaration of quantity in terms of measure shall be combined with appropriate declarations of the weight, volume, count, and size of the individual units unless a declaration of measure alone is fully informative.

(c) A declaration of quantity in terms of count shall be combined with appropriate declarations of the weight, volume, measure, and size of the individual units unless a declaration of count alone is fully informative.

(Added 1971)

6.5. SI Units: Mass, Measure. [see *Section 6.3. NOTE*] – A declaration of quantity shall be expressed in terms of Table 6.5. SI Units: Mass, Measure, and the requirements in 6.5.(f), (g), and (h):

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Table 6.5. SI Units: Mass, Measure

If a declaration of quantity is in units of:	The units shall be in:
mass	kilogram, gram, or milligram
liquid measure	liter or milliliter and shall express the volume at 20 °C*, except for: (1) petroleum products or distilled spirits for which the declaration shall express the volume at 15.6 °C; (2) a commodity that is normally sold and consumed while frozen for which the declaration shall express the volume at the frozen temperature; and (3) malt (beer) beverages that must be maintained in the refrigerated state for which the declaration shall express the volume at 4 °C. (4) refrigerated food (e.g., milk and dairy products labeled "keep refrigerated") for which the declaration shall express the volume at 4 °C. *Other liquids and wine (e.g., for immediate consumption that do not require, but may be refrigerated [shelf stable] such as soft drinks, bottled water) at 20 °C.
linear measure	meter, centimeter, or millimeter
area measure	square meter, square decimeter, square centimeter, or square millimeter
volume other than liquid measure	liter or milliliter, except that units cubic meter and cubic centimeter shall be used only when specifically designated as a method of sale
Rule of 1000.	The selected multiple or submultiple prefixes for SI units shall result in numerical values between 1 and 1000. This rule allows centimeters or millimeters to be used where a length declaration is less than 100 centimeters. **Examples:** 500 g, not 0.5 kg 1.96 kg, not 1960 g 750 mL, not 0.75 L 750 mm or 75 cm, not 0.75 m (Added 1993)
SI declarations should be shown in three digits	Except where the quantity is below 100 grams, milliliters, centimeters, square centimeters, or cubic centimeters, where it may be shown in two digits. In either case, any final zero appearing to the right of the decimal point need not be shown; and (Added 1993)
The declaration of net quantity of contents shall not be expressed in mixed units.	**Example:** 1.5 kg, not 1 kg 500 g (Added 1993)

(Amended 2015)

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6.5.1. Symbols. – Any of the following symbols for SI units, and none other, may be employed in the quantity statement on a package of commodity:

Unit	Symbol
centimeter	cm
cubic centimeter	cm^3
meter	m
milligram	mg
liter	L or l
milliliter	mL or ml
square centimeter	cm^2
micrometer	µm
cubic meter	m^3
kilogram	kg
gram	g
millimeter	mm
square meter	m^2
cubic decimeter	dm^3
square decimeter	dm^2
microgram	µg or mcg
cubic meter	m^3

(a) Symbols [see ***Section 6.5.1. NOTE***], except for liter, are not capitalized unless the unit is derived from a proper name. Periods shall not be used after the symbol. Symbols shall always be written in the singular form. Adding "s" to an SI symbol to express the plural of the symbol is prohibited.

(b) The "L" symbol and the "mL" symbol are preferred; however, the "l" symbol for liter and "ml" symbol for milliliter are permitted.

(Amended 1980 and 1993)

***Section 6.5.1. NOTE*:** The "e" mark shall not be considered to be a qualifying word or phrase and may be used as part of the statement of the net quantity of contents where warranted. When used, the "e" mark shall be at least 3 mm (approximately 1/8 in) in height. The term "e" mark refers to the symbol "e" used in connection with the quantity declarations on labels of some consumer commodities marketed primarily in the European Union (EU) and South Africa. The "e" mark constitutes a representation by the packer or importer that the package to which it is applied has been filled in accordance with the average system of quantity specified by the EU. The average system is a method of declaring package fill in the EU and other countries of the world, including the United States.

(Added 1993)

6.5.2. Fractions and Prefixes.

(a) **Fractions:** An SI statement in a declaration of net quantity of contents of any consumer commodity may contain only decimal fractions.

(b) **Prefixes:** The following chart indicates SI prefixes that may be used on a broad range of consumer commodity labels to form multiples and submultiples of SI units:

Prefix	Symbol	Multiplying Factor*
kilo-	k	$\times 10^3$
deka-**	da	$\times 10$
deci-**	d	$\times 10^{-1}$
centi-***	c	$\times 10^{-2}$
milli-	m	$\times 10^{-3}$
micro-****	µ	$\times 10^{-6}$

*$10^2 = 100$; $10^3 = 1000$; $10^{-1} = 0.1$; $10^{-2} = 0.01$
Thus, 2 kg = 2 × 1000 g = 2000 g and 3 cm = 3 × 0.01 m = 0.03 m

**Not permitted on food labels.

***Should only be used with "meter."

****Shall only be used for measurements less than 1 mm.

(Amended 1993)

6.6. Prescribed Units, SI. [see *Section 6.1. NOTE*]

6.6.1. Less than 1 Meter, 1 Square Meter, 1 Kilogram, 1 Cubic Meter, or 1 Liter. – The declaration of quantity shall be expressed as follows:

(a) length measure of less than 1 meter: in centimeters or millimeters;
(Amended 1979)

(b) area measure of less than 1 m^2: in square decimeters and decimal fractions of a square decimeter or in square centimeters and decimal fractions of a square centimeter;

(c) mass of less than 1 kg: in grams and decimal fractions of a gram, but if less than 1 g, then in milligrams;

(d) liquid or dry measure of less than 1 L: in milliliters; and

(e) cubic measure less than 1 m^3: in cubic centimeters or cubic decimeters (liters);
(Added 1993)

Provided the quantity declaration appearing on a random mass package may be expressed in units of decimal fractions of the largest appropriate unit, the fraction being carried out to not more than three decimal places.
(Amended 1980 and 1993)

6.6.2. One Meter, 1 Square Meter, 1 Kilogram, 1 Liter, 1 Cubic Meter, or More. – In the case of:

(a) length measure of 1 m or more: in meters and decimal fractions to not more than three places;

(b) area measure of 1 m^2 or more: in square meters and decimal fractions to not more than three places;

(c) mass of 1 kg or more: in kilograms and decimal fractions to not more than three places;

(d) liquid or dry measure of 1 L or more: in liters and decimal fractions to not more than three places; and
(Added 1986) (Amended 1993)

(e) cubic measure of 1 m^3 or more: in cubic meters and decimal fractions to not more than three places.
(Added 1993)

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6.7. U.S. Customary Units: Weight, Measure. – A declaration of quantity shall be expressed in terms of Table 6.7. U.S. Customary Units: Weight, Measure:

Table 6.7. U.S. Customary Units: Weight, Measure

If a declaration of quantity is in units of:	The unit shall be in:
weight	avoirdupois pound or ounce
liquid measure	U.S. gallon of 231 in^3 or liquid quart, liquid pint, or fluid-ounce subdivisions of the gallon and shall express the volume at 68 °F*, except in the case of: (1) petroleum products or distilled spirits for which the declaration shall express the volume at 60 °F; (2) a commodity that is normally sold and consumed while frozen for which the declaration shall express the volume at the frozen temperature; and (3) malt (beer) beverages that must be maintained in the refrigerated state for which the declaration shall express the volume at 39.1 °F; and (4) refrigerated food (e.g., milk and dairy products labeled "keep refrigerated") for which the declaration shall be expressed at 40 °F. *Other liquids and wine (e.g., for immediate consumption that do not require, but may be refrigerated [shelf stable] such as soft drinks, bottled water) at 68 °F.
linear measure	yard, foot, or inch
area measure	square yard, square foot, or square inch
volume measure	cubic yard, cubic foot, or cubic inch
dry measure	U.S. bushel of 2150.42 in^3, or peck, dry quart, and dry pint subdivisions of the bushel

(Amended 2015)

6.7.1. Symbols and Abbreviations. – Any of the following symbols and abbreviations, and none other, shall be employed in the quantity statement on a package of commodity:

Symbol	Abbreviation
avoirdupois	avdp
piece	pc
pint	pt
pound	lb
feet or foot	ft
fluid	fl
gallon	gal
inch	in
liquid	liq
diameter	dia

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Symbol	Abbreviation
ounce	oz
count	ct
cubic	cu
each	ea
quart	qt
square	sq
weight	wt
yard	yd
drained	dr

A period should not be used after the abbreviation. Abbreviations should be written in singular form; and "s" should not be added to express the plural. (For example, "oz" is the symbol for both "ounce" and "ounces.") Both upper and lowercase letters and exponents are acceptable.

(Amendment effective December 17, 2017)

(Added 1974) (Amended 1980, 1990, 1993, and 2016)

6.7.2. Units of Two or More Meanings. – When the term "ounce" is employed in a declaration of liquid quantity, the declaration shall identify the particular meaning of the term by the use of the term "fluid;" however, such distinction may be omitted when, by association of terms (for example, as in "1 pint 4 ounces"), the proper meaning is obvious. Whenever the declaration of quantity is in terms of the dry pint or dry quart, the declaration shall include the word "dry."

(Amended 1982)

6.8. Prescribed Units, U.S. Customary System.

6.8.1. Less than 1 foot, 1 square foot, 1 pound, or 1 pint. – The declaration of quantity shall be expressed in the following terms:

(a) in the case of length measure of less than 1 ft, in inches and fractions of inches;

(b) in the case of area measure of less than 1 ft^2, in square inches and fractions of square inches;

(c) in the case of weight of less than 1 lb, in ounces and fractions of ounces; and

(d) in the case of liquid measure of less than 1 pt, in fluid ounces and fractions of fluid ounces, provided, the quantity declaration appearing on a random package may be expressed in terms of decimal fractions of the largest appropriate unit, the fraction being carried out to not more than three decimal places.

(Amended 1984)

6.8.2. One Foot, 1 Square Foot, 1 Pound, 1 Pint, 1 Gallon, or More. – The declaration of quantity shall be expressed in the following terms (see Section 6.2. Largest Whole Unit and Section 6.11. Fractions):

(a) **Linear Measure.** – If 1 ft or more, expressed in terms of the largest whole unit (a yard or a foot) with any remainder expressed in inches and fractions of the inch or in fractions of the foot or yard, except that it shall be optional to include a statement of length in terms of inches.

(b) **Area Measure.**

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(1) If 1 ft^2 or more, but less than 4 ft^2, expressed in square feet with any remainder expressed in square inches and fractions of a square inch or in fractions of a square foot; and

(2) If 4 ft^2 or more, expressed in terms of the largest whole unit (e.g., square yards or square feet) with any remainder expressed in square inches and fractions of a square inch or in fractions of the square foot or square yard.

(c) **Weight.** – If 1 lb or more, expressed in terms of the largest whole unit with any remainder expressed in ounces and fractions of an ounce or in fractions of the pound.

(d) **Liquid Volume.**

(1) If 1 pt or more, but less than 1 gal, expressed in the largest whole unit (quarts, quarts and pints, or pints, as appropriate) with any remainder expressed in fluid ounces or fractions of the pint or quart, except that 2 qt may be declared as 1/2 gal, and it shall be optional to include an additional expression of net quantity in fluid ounces; or

(2) If 1 gal or more, expressed in terms of the largest whole unit (gallons followed by fractions of a gallon or by the next smaller whole unit or units [for example, quarts and pints]) with any remainder expressed in fluid ounces or fractions of the pint or quart, except that it shall be optional to include an additional expression of net quantity in fluid ounces.

(e) **Dry Measure.** – If 1 dry pt or more, expressed in terms of the largest whole unit with the remainder expressed in fractions of a dry pint, dry quart, peck, or bushel, provided the quantity declaration on a random package may be expressed in decimal fractions of the largest appropriate unit carried out to not more than three decimal places.

(Amended 1993)

6.9. Bi-dimensional Commodities. – For bi-dimensional commodities (including roll-type commodities) the quantity declaration shall be expressed in both SI and U.S. customary units of measurement as follows:

(a) if the area is less than 929 cm^2 (1 ft^2), in terms of length and width (expressed in the largest whole unit for SI and in linear inches and fractions of linear inches for U.S. customary);

Example:
20.3 cm × 25.4 cm (8 in × 10 in)

(b) if the area is at least 929 cm^2 (1 ft^2), but less than 37.1 dm^2 (4 ft^2), in terms of area (expressed in the largest whole unit for SI and in square inches for U.S. customary), followed by a declaration of the length and width in terms of the largest whole unit:

Example:
31 dm^2 (49 cm × 64 cm) 3.36 ft^2 (1.6 ft × 2.1 ft), provided:

(1) bi-dimensional commodities having a width of 10 cm (4 in) or less, the declaration of net quantity shall be expressed in terms of width and length in linear measure; no declaration of area is required;

(2) an U.S. customary dimension of less than 2 ft may be stated in inches;

(3) commodities consisting of usable individual units (e.g., paper napkins) require a declaration of unit area but not a declaration of total area of all such units (except roll-type commodities with individual usable units created by perforations, for which see Section 6.10. Count: Ply); and

(4) U.S. customary declarations may include after the statement of the linear dimensions in the largest whole unit a parenthetical declaration of the same dimensions in inches.

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Example:
25 ft^2 (12 in × 8.33 yd) (12 in × 300 in)

(c) if the area is 37.1 dm^2 (4 ft^2) or more, in terms of area (expressed in the largest whole unit for SI and in square feet for U.S. customary), followed by a declaration of the length and width, in terms of the largest whole unit, provided:

(1) no declaration of area is required for a bi-dimensional commodity with a width of 10 cm (4 in) or less;

(2) bi-dimensional commodities with a width of 10 cm (4 in) or less, the U.S. customary statement of width shall be expressed in terms of linear inches and fractions thereof, and length shall be expressed in the largest whole unit (yard or foot) with any remainder in terms of fractions of the yard or foot, except that it shall be optional to express the length in the largest whole unit followed by a statement of length in inches or to express the length in inches followed by a statement of length in the largest whole unit;

Examples:
5 cm × 9.14 m (2 in × 10 yd)
5 cm × 9.14 m (2 in × 10 yd) (360 in)
5 cm × 9.14 m (2 in × 360 in) (10 yd)

(3) an U.S. customary dimension of less than 2 ft may be stated in inches; and

(d) no declaration of area is required for commodities for which the length and width measurements are critical in terms of end use (such as wallpaper border) if such commodities clearly present the length and width measurements on the label.

6.10. Count: Ply. – If the commodity is in individually usable units of one or more components or plies, the quantity declaration shall, in addition to complying with other applicable quantity declaration requirements of this regulation, include the number of plies and total number of usable units.

Roll type commodities, when perforated so as to identify individual usable units, shall not be deemed to be made up of usable units; however, such roll type commodities shall be labeled in terms of:

(a) total area measurement;

(b) number of plies;

(c) count of usable units; and

(d) dimensions of a single usable unit.
(Amended 1988)

6.11. Fractions.

(a) **U.S. Customary:** An U.S. customary unit statement of net quantity of contents of any consumer commodity may contain common or decimal fractions. A common fraction shall be in terms of halves, quarters, eighths, sixteenths, or thirty-seconds, except that:

(1) if there exists a firmly established general consumer usage and trade custom of employing different common fractions in the net quantity declaration of a particular commodity, they may be employed; and

(2) if linear measurements are required in terms of yards or feet, common fractions may be in terms of thirds.

(b) **Common fractions:** A common fraction shall be reduced to its lowest term.

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Example:
2/4 becomes 1/2

(c) **Decimal fractions:** A decimal fraction shall not be carried out to more than three places.

(Amended 1986 and 1993)

6.12. Supplementary Quantity Declarations. – The required quantity declaration may be supplemented by one or more declarations of weight, measure, or count, such declaration appearing other than on a principal display panel. Such supplemental statement of quantity of contents shall not include any term qualifying a unit of weight, measure, or count that tends to exaggerate the amount of commodity contained in the package (e.g., "giant" quart, "larger" liter, "full" gallon, "when packed," "minimum," [see ***Section 6.12. NOTE***] or words of similar import).

(Amended 2018)

***Section 6.12. NOTE*:** Packages of products subject to the labeling requirements under the EPA, Labeling Requirements for Pesticides and Devices, **40 C.F.R. § 156.10** are permitted to display the term "minimum" in conjunction with the net quantity of contents declaration. The packer may choose to fill the packages under the minimum or average systems of fill. However, if the minimum system is declared, variations above minimum quantity is permissible only to the extent that it represents deviation unavoidable in good manufacturing practice and no variation below the stated minimum quantity is permitted.

(Added 2018)

6.13. Rounding. [**see** ***Section 6.13. NOTE***] – In all conversions for the purpose of showing an equivalent SI or U.S. customary quantity to a rounded U.S. customary or SI quantity, or in calculated values to be declared in the net quantity statement, the number of significant digits retained must be such that accuracy is neither sacrificed nor exaggerated. Conversions, the proper use of significant digits, and rounding must be based on the packer's knowledge of the accuracy of the original measurement that is being converted. In no case shall rounded net contents declarations overstate a quantity; the packer may round the converted values down to avoid overstating the net contents.

(Amended 1993)

***Section 6.13. NOTE*:** When as a result of rounding SI or U.S. customary declarations the resulting declarations are not exact, the largest declaration (either metric or U.S. customary) will be used for enforcement purposes to determine whether a package contains at least the declared amount of the product.

6.14. Qualification of Declaration Prohibited. – In no case shall any declaration of quantity be qualified by the addition of the words "when packed," "minimum," [see ***Section 6.12. NOTE***] or "not less than" or any words of similar import (e.g., "approximately"), nor shall any unit of weight, measure, or count be qualified by any term (such as "jumbo," "giant," "full," or the like) that tends to exaggerate the amount of commodity.

(Amended 1998 and 2018)

6.15. Character of Declaration: Average. – The average quantity of contents in the packages of a particular lot, shipment, or delivery shall at least equal the declared quantity, and no unreasonable shortage in any package shall be permitted even though overages in other packages in the same shipment, delivery, or lot compensate for such shortage.

(Added 1981)

6.16. Random Packages. – A random weight package must bear a label conspicuously declaring:

(a) the net weight;

(b) unit price; and

(c) the total price.

In the case of a random package packed at one place for subsequent sale at another, neither the price per unit of weight nor the total selling price need appear on the package, provided the package label includes both such prices at the time it is offered or exposed for sale at retail.

(Added 1999)

Section 7. Declaration of Quantity: Non-Consumer Packages

7.1. General. – The SI and U.S. customary systems of weights and measures are recognized as proper systems to be used in the declaration of quantity. Units of both systems may be combined in a dual declaration of quantity. [see ***Section 7.1. NOTE***] (See Section 6.3. Net Quantity, and Section 6.3.1. Use of "Net Mass" or "Net Weight.")

Section 7.1. NOTE: Although non-consumer packages under this Regulation may bear SI declarations only, this Regulation should not be construed to supersede any labeling requirement specified in federal law.

7.2. Location. – A non-consumer package shall bear on the outside a declaration of the net quantity of contents. Such declaration shall be in terms of the largest whole unit (see Section 6.2. Largest Whole Unit; for small packages, see Section 11.16. Small Packages).

7.3. Terms: Weight, Liquid Measure, Dry Measure, or Count. – The declaration of the quantity of a particular commodity shall be expressed in terms of liquid measure if the commodity is liquid, in terms of dry measure if the commodity is dry, in terms of weight if the commodity is solid, semisolid, viscous, or a mixture of solid and liquid, or in terms of numerical count. However, if there exists a firmly established general consumer usage and trade custom with respect to the terms used in expressing a declaration of quantity of a particular commodity, such declaration of quantity may be expressed in its traditional terms if such traditional declaration gives accurate and adequate information as to the quantity of the commodity.

7.4. SI Units: Mass, Measure. – A declaration of quantity:

(a) in units of mass shall be in terms of the kilogram, gram, or milligram;

(b) in units of liquid measure shall be in terms of the liter or milliliter, and shall express the volume at 20 °C, except in the case of petroleum products or distilled spirits, for which the declaration shall express the volume at 15.6 °C, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of malt beverages or a commodity that is normally sold in the refrigerated state, for which the declaration shall express the volume at 4 °C;

(Amended 1985)

(c) in units of linear measure shall be in terms of the meter, centimeter, or millimeter;

(d) in units of area measure shall be in terms of the square meter, square decimeter, square centimeter or square millimeter;

(e) in units of volume other than liquid measure shall be in terms of the liter and milliliter, except that the terms cubic meter, cubic decimeter, and cubic centimeter will be used only when specifically designated as a method of sale;

(f) Rule of 1000. – The selected multiple or submultiple prefixes for SI units shall result in numerical values between 1 and 1000. This rule allows centimeters or millimeters to be used where a length declaration is less than 100 centimeters;

Examples:
500 g, not 0.5 kg
1.96 kg, not 1960 g

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750 mL, not 0.75 L
750 mm or 75 cm, not 0.75 m

(Added 1993)

(g) SI declarations should be shown in three digits except where the quantity is below 100 grams, milliliters, centimeters, square centimeters, or cubic centimeters where it can be shown in two digits. In either case, any final zero appearing to the right of the decimal point need not be shown; and

(Added 1993)

(h) the declaration of net quantity of contents shall not be expressed in mixed units.

Example:
1.5 kg, not 1 kg 500 g

7.4.1. Symbols. – Only those symbols as detailed in Section 6.5.1. Symbols, and none other, may be employed in the quantity statement on a package of commodity.

7.5. U.S. Customary Units: Weight, Measure. – A declaration of quantity:

(a) in units of weight shall be in terms of the avoirdupois pound or ounce;

(b) in units of liquid measure shall be in terms of the United States gallon of 231 cubic inches or liquid quart, liquid pint, or fluid ounce subdivisions of the gallon and shall express the volume at 68 °F, except in the case of petroleum products or distilled spirits, for which the declaration shall express the volume at 60 °F, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of a commodity that is normally sold in the refrigerated state, for which the declaration shall express the volume at 40 °F, and except also in the case of malt beverages, for which the declaration shall express the volume at 39.1 °F;

(Amended 1985)

(c) in units of linear measure shall be in terms of the yard, foot, or inch;

(d) in units of area measure shall be in terms of the square yard, square foot, or square inch;

(e) in units of volume measure shall be in terms of the cubic yard, cubic foot, or cubic inch; and

(f) in units of dry measure, shall be in terms of the United States bushel of 2150.42 in^3, or peck, dry quart, and dry pint subdivisions of the bushel.

7.5.1. Symbols and Abbreviations. – Any generally accepted symbol and abbreviation of a unit name may be employed in the quantity statement on a package of commodity. (For commonly accepted symbols and abbreviations, see Section 6.7.1. Symbols and Abbreviations.)

7.6. Character of Declaration: Average. – The average quantity of contents in the packages of a particular lot, shipment, or delivery shall at least equal the declared quantity, and no unreasonable shortage in any package shall be permitted, even though overages in other packages in the same shipment, delivery, or lot compensate for such shortage.

Section 8. Prominence and Placement: Consumer Packages

8.1. General. – All information required to appear on a consumer package shall appear thereon in the English language and shall be prominent, definite, plain, and conspicuous as to size and style of letters and numbers and as to color of letters and numbers in contrast to color of background. Any required information that is either in hand lettering or hand script shall be entirely clear and equal to printing in legibility.

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8.1.1. Location. – The declaration or declarations of quantity of the contents of a package shall appear in the bottom 30 % of the principal display panel or panels. For cylindrical containers, see also Section 10.7. Cylindrical Containers for additional requirements. For small packages, see Section 11.16. Small Packages.

(Amended 1975)

8.1.2. Style of Type or Lettering. – The declaration or declarations of quantity shall be in such a style of type or lettering as to be boldly, clearly, and conspicuously presented with respect to other type, lettering, or graphic material on the package, except that a declaration of net quantity blown, formed, or molded on a glass or plastic surface is permissible when all label information is blown, formed, or molded on the surface.

8.1.3. Color Contrast. – The declaration or declarations of quantity shall be in a color that contrasts conspicuously with its background, except that a declaration of net quantity blown, formed, or molded on a glass or plastic surface shall not be required to be presented in a contrasting color if no required label information is on the surface in a contrasting color.

8.1.4. Free Area. – The area surrounding the quantity declaration shall be free of printed information:

(a) above and below, by a space equal to at least the height of the lettering in the declaration; and

(b) to the left and right, by a space equal to twice the width of the letter "N" of the style and size of type used in the declaration.

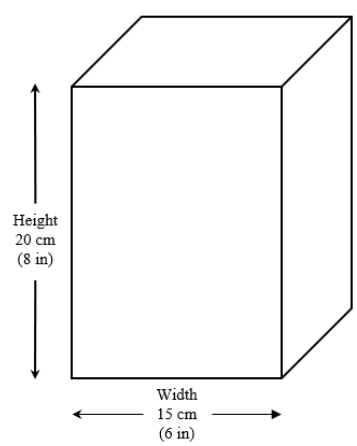
8.1.5. Parallel Quantity Declaration. – The quantity declaration shall be presented in such a manner as to be generally parallel to the declaration of identity and to the base on which the package rests as it is designed to be displayed.

8.2. Calculation of Area of Principal Display Panel for Purposes of Type Size. – The area of the principal display panel shall be:

(a) in the case of a rectangular container, one entire side that properly can be considered the principal display panel, the product of the height times the width of that side;

For Figure 3. Calculation of the Area of the Principal Display Area of a Rectangular Container, the area of the principal display panel is 20 cm (8 in) × 15 cm (6 in) = 300 cm^2 (48 in^2).

Fig 3. Calculation of the Area of the Principal Display Area of a Rectangular Container



(b) in the case of a cylindrical or nearly cylindrical container, the product of the height of the container times the circumference times 40 %.

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For Figure 4. Calculation of the Area of the Principal Display Area of a Cylindrical Container, the area of the principal display panel is 5 cm (2 in) × 25 cm (10 in) = 125 cm^2 (20 in^2) × 0.40 = 50 cm^2 (8 in^2) (see also Section 10.7. Cylindrical Containers).

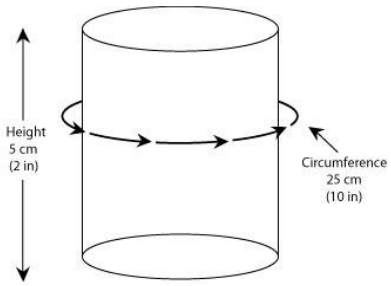
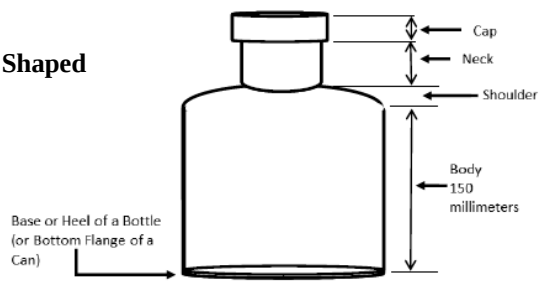


Fig. 4. Calculation of the Area of the Principal Display Area of a Cylindrical Container

(c) in the case of any other shaped container, 40 % of the total surface of the container, unless such container presents an obvious principal display panel (e.g., the top of a triangular or circular package of cheese, or the top of a can of shoe polish), in which event the area shall consist of the entire such surface. Determination of the principal display panel shall exclude tops, bottoms, flanges at tops and bottoms of cans, and shoulders and necks of bottle or jars. (see Figure 5. Other Shaped Containers.)

Fig. 5. Other Shaped Containers



(d) in the case of a spot label, it is not the size of the label that is used to determine the minimum type size of the quantity statement, but the size of the surface of the package exposed (panel) viewable to the customer. The declaration of net quantity of contents must be of the same height in both cases. In Figure 6. Spot Labels, the package on the right side of the figure has a spot label. The area of the principal display panel is the same in both examples. (see Section 2.12. Spot Label and Section 11.29. Spot Label.)

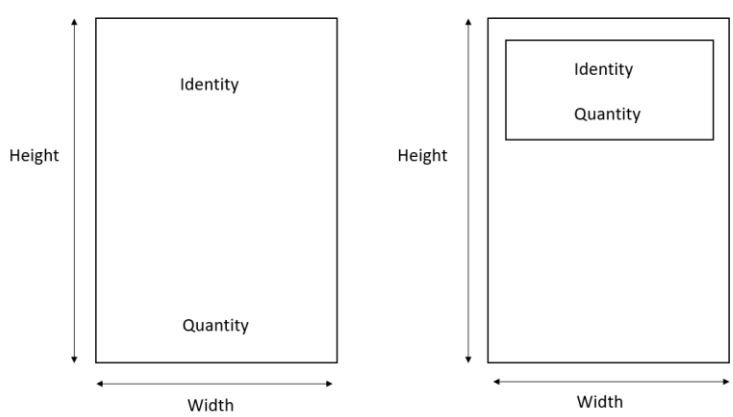


Fig. 6. Spot Label.

(Amended 2022)

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8.2.1. Minimum Height of Numbers and Letters. – The height of any letter or number in the required quantity declaration shall be not less than that shown in Table 1 with respect to the area of the panel, and the height of each number of a common fraction shall meet one-half the minimum height standards. When upper and lowercase or all lowercase letters are used, it is the lowercase "o" or its equivalent that shall meet the minimum height requirement. When upper and lowercase or all lowercase letters are used in SI symbols, it is the uppercase "L," lowercase "d," or their equivalent in the print or type that shall meet the minimum height requirement. However, no letter shall be less than 1.6 mm (1/16 in) in height. Other letters and exponents must be presented in the same type style and in proportion to the type size used.

(Amended 1993)

8.2.2. Numbers and Letters: Proportion. – No number or letter shall be more than three times as high as it is wide.

Table 1. Minimum Height of Numbers and Letters

Area of Principal Display Panel	Minimum Height of Numbers and Letters	Minimum Height; Label Information Blown, Formed, or Molded on Surface of Container
≤ 32 cm^2 (5 in^2)	1.6 mm (1/16)in)	3.2 mm (1/8 in)
> 32 cm^2 (5 in^2) ≤ 161 cm^2 (25 in^2)	3.2 mm (1/8 in)	4.8 mm (3/16 in)
> 161 cm^2 (25 in^2) ≤ 645 cm^2 (100 in^2)	4.8 mm (3/16 in)	6.4 mm (1/4 in)
> 645 cm^2 (100 in^2) ≤ 2581 cm^2 (400 in^2)	6.4 mm (1/4 in)	7.9 mm (5/16 in)
> 2581 cm^2 (400 in^2)	12.7 mm (1/2 in)	14.3 mm (9/16 in)

Symbols: ≤ means less than or equal to; < means less than; > means greater than
NOTE: The type size requirements specified in this table do not apply to the "e" mark [see ***Section 6.5.1. NOTE***]

Section 9. Prominence and Placement: Non-Consumer Packages

9.1. General. – All information required to appear on a non-consumer package shall be definitely and clearly stated thereon in the English language. Any required information that is either in hand lettering or hand script shall be entirely clear and equal to printing in legibility.

Section 10. Requirements: Specific Consumer Commodities, Non-Consumer Commodities, Packages, Containers

(Title amended 1979)

10.1. Display Card Package. – For an individual package affixed to a display card, or for a commodity and display card together comprising a package, the type size of the quantity declaration is governed by the dimensions of the display card.

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10.2. Eggs. – When cartons containing 12 eggs have been designed so as to permit division in half by the retail purchaser, the required quantity declaration shall be so positioned as to have its context destroyed when the carton is divided.

10.3. Aerosols and Other Pre-pressurized Containers Dispensing Product Under Pressure. – The declaration of quantity on an aerosol and on other pre-pressurized containers dispensing products under pressure shall disclose the net quantity of the commodity (including propellant, where applicable) in terms of weight that will be expelled when the instructions for use as shown on the container are followed.

(Amended 2014)

10.4. Multiunit Packages. [see *Section 10.4. NOTE*] – Any package containing more than one individual "commodity in package form" (see Section 2.1. Package) of the same commodity shall bear on the outside of the package a declaration of:

(a) the number of individual units;

(b) the quantity of each individual unit; and

(c) the total quantity of the contents of the multiunit package.

Example:
soap bars, 6 Bars, Net Wt 100 g (3.53 oz) each
total Net Wt 600 g (1.32 lb).

(Amended 1993)

(d) A multiunit package containing unlabeled individual packages which are not intended for retail sale separate from the multiunit package may contain, in lieu of the requirements of section (a), (b) and (c), a declaration of quantity of contents expressing the total quantity of the multiunit package without regard for inner packaging. For such multiunit packages, it shall be optional to include a statement of the number of individual packages when such a statement is not otherwise required by the regulations.

Examples:
Deodorant Cakes –
5 cakes, Net Wt 113 g (4 oz) each, Total Net Wt 566 g (1.25 lb); or
5 cakes, Total Net Wt 566 g (1 lb 4 oz)

Soap Packets –
10 packets, Net Wt 56.6 g (2 oz) each, Total Net Wt 566 g (1.25 lb); or Net Wt 566 g (1 lb 4 oz); or 10packets, Total Net Wt 566 g (1 lb 4 oz)

The term "total" or the phrase "total contents" may precede the quantity declaration.

(Amended 1993)

Section 10.4. NOTE: For foods, a "multiunit" package means a package containing two or more individually packaged units of the identical commodity in the same quantity, intended to be sold as part of the multiunit package but labeled to be individually sold in full compliance with this regulation. Open multiunit retail food packages under the authority of the FDA or the USDA that do not obscure the number of units or prevent examination of the labeling on each of the individual units are not required to declare the number of individual units or the total quantity of contents of the multiunit package if the labeling of each individual unit complies with requirements so that it is capable of being sold individually. (See also Section 11.11. Soft Drink Bottles and Section 11.12. Multiunit Soft-Drink Bottles.)

(Added 1984)

10.5. Combination Packages. – A combination package is a package intended for retail sale, containing two or more individual packages or units of dissimilar commodities. The declaration of net quantity for a combination package shall contain an expression of weight, volume, measure, or count or a combination thereof, as appropriate,

for each individual package or unit, provided the quantity statements for identical packages or units shall be combined. This section does not apply to food or other commodities subject to the Federal Food, Drug, and Cosmetic Act (21 USC).

Examples:
Lighter Fluid and Flints –
2 cans lighter fluid – each 236 mL (8 fl oz)
1 package – 8 flints

Sponges and Cleaner –
2 sponges – each 10 cm × 15 cm × 2.5 cm (4 in × 6 in × 1 in)
1 box cleaner – Net Mass 170 g (6 oz)

Picnic Pack –
20 spoons, 10 knives, and 10 forks
10 2-ply napkins 25 cm × 25 cm (10 in × 10 in)
10 cups – 177 mL (6 fl oz)

(Amended 1993)

10.6. Variety Packages. – A variety package is a package intended for retail sale, containing two or more individual packages or units of similar but not identical commodities. Commodities that are generically the same but that differ in weight, measure, volume, appearance, or quality are considered similar but not identical. This section does not apply to foods or other commodities subject to the Federal Food, Drug, and Cosmetic Act (21 USC). The declaration of net quantity for a variety package will be expressed as follows:

(a) the number of units for each identical commodity followed by the weight, volume, or measure of that commodity;

(b) the total quantity by weight, volume, measure, and count, as appropriate, of the variety package. The statement of total quantity shall appear as the last item in the declaration of net quantity and shall not be of greater prominence than other terms used.

Examples:
Sponges –
11 sponges, 11 cm × 20.3 cm × 1.9 cm (4 in × 8 in × 3/4 in)
14 sponges, 5.7 cm × 10 cm × 1.2 cm (2 1/4 in × 4 in × 1/2 in)
Total: 25 sponges

Soap –
2 soap bars, 85 g (3 oz) ea
1 soap bar, 142 g (5 oz)
Total: 3 soap bars 312 g (11 oz)

Liquid Shoe Polish –
1 brown, 89 mL (3 fl oz)
1 black, 89 mL (3 fl oz)
1 white, 148 mL (5 fl oz)
Total: 326 mL (11 fl oz)

Picnic Ware –
34 spoons
33 forks
33 knives
Total: 100 pieces

(Amended 1993)

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When individual units in a variety package are either packaged or labeled and are intended for retail sale as individual units, each unit shall be labeled in compliance with the applicable sections of this regulation.

10.7. Cylindrical Containers. – In the case of cylindrical or nearly cylindrical containers, information required to appear on the principal display panel shall appear within that 40 % of the circumference which is most likely to be displayed, presented, shown, or examined under customary conditions of display for retail sale.

10.8. Measurement of Container-Type Commodities, How Expressed.

10.8.1. General. – Commodities designated and sold at retail to be used as containers for other materials or objects, such as bags, cups, boxes, and pans, shall be labeled with the declaration of net quantity as follows:

(a) For bag-type commodities, in terms of count followed by linear dimensions of the bag (whether packaged in a perforated roll or otherwise). The linear dimensions shall be expressed:

(1) in SI units: in millimeters or centimeters, except that a dimension of 1 meter or more will be expressed in meters with the remainder in terms of decimal fractions of the meter; and

(2) in U.S. customary units: in inches, except that a dimension of 2 ft or more will be expressed in feet with any remainder in terms of inches or common or decimal fractions of the foot.

(b) When the unit bag is characterized by two dimensions because of the absence of a gusset, the width and length will be stated.

Examples:
25 bags, 12.7 cm × 10 cm (5 in × 4 in) or
50 bags, 75 cm × 1.2 m (2.5 ft × 3.9 ft)

(c) When the unit bag is gusseted, the dimensions will be expressed as width, depth, and length.

Examples:
25 bags, 43 cm × 10 cm × 50 cm (17 in × 4 in × 20 in) or
100 bags, 50.8 cm × 30.4 cm × 76.2 cm (20 in × 12 in × 2 1/2 ft)

(d) For other square, oblong, rectangular, or similarly shaped containers, in terms of count followed by length, width, and depth, except depth need not be listed when less than 5 cm or 2 in. The linear dimensions shall be expressed as specified in Section 10.8.1.(a).

Example:
bag-type commodities: 2 Pans, 20 cm × 20 cm (8 in × 8 in)

(e) For circular or other generally round-shaped containers, except cups and the like, in terms of count followed by diameter and depth, except depth need not be listed when less than 5 cm or 2 in.

Example:
4 pans, 20 cm (8 in) diameter × 10 cm (4 in)

(f) Cups – Notwithstanding the above requirements, the net quantity statement for containers such as cups will be listed in terms of count and liquid capacity per unit.

Example:
24 cups, 177 mL (6 fl oz) capacity

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10.8.2. Capacity. – When the functional use of the container is related by label references in standard terms of measure to the capability of holding a specific quantity of substance or class of substances such references shall be a part of the net quantity statement and shall specify capacity as follows:

(a) in SI units: in terms of volume for all containers and liners. The expressed capacity will be stated in terms of milliliters, except that a quantity of 1 liter or more shall be expressed in liters with the remainder in terms of decimal fractions of the liter; and

(b) in U.S. customary units:

(1) In terms of liquid measure for containers that are intended to be used for liquids, semisolids, viscous materials, or mixtures of solids and liquids. The expressed capacity will be stated in terms of the largest whole unit (gallon, quart, pint, fluid ounce) with any remainder in terms of common or decimal fractions of that unit.

Example:
Freezer Boxes –
4 Boxes, 946 mL capacity, 15 cm × 15 cm × 10 cm (1 qt capacity, 6 in × 6 in × 4 in)

(2) In terms of dry measure for containers that are intended to be used for solids. The expressed capacity will be stated in terms of the largest whole unit (bushel, peck) with any remainder in terms of common or decimal fractions of that unit.

Example:
Leaf Bags –
8 bags, 211 L capacity, 1.21 m × 1.52 m (6 bu capacity, 4 ft × 5 ft)

(3) Where containers are used as liners for other more permanent containers, in the same terms as are normally used to express the capacity of the more permanent containers.

Example:
Garbage Can Liners –
10 liners, 76.2 cm × 93.9 cm, fits up to 113 L cans (2 ft 6 in × 3 ft 1 in, fits up to 30 gal cans)

10.8.3. Terms. – For purposes of this section, the use of the terms “capacity,” “diameter,” and “fluid” is optional.

10.9. Textile Products, Threads, and Yarns.

10.9.1. Wearing Apparel. – Wearing apparel (including non-textile apparel and accessories such as leather goods and footwear) sold as single unit items, or if normally sold in pairs (such as hosiery, gloves, and shoes) sold as single unit pairs, shall be exempt from the requirements for net quantity statement by count, as required by Section 6.4. Terms: Weight, Liquid Measure, Dry Measure, or Count of this regulation.

10.9.2. Textiles. – Bed sheets, blankets, pillowcases, comforters, quilts, bedspreads, mattress covers and pads, afghans, throws, dresser and other furniture scarves, tablecloths and napkins, flags, curtains, drapes, dishtowels, dishcloths, towels, facecloths, utility cloths, bathmats, carpets and rugs, potholders, fixture and appliance covers, nonrectangular diapers, slipcovers, etc., shall be exempt from the requirements of Section 6.9. Bi-dimensional Commodities of this regulation, provided:

(a) The quantity statement for fitted sheets and mattress covers shall state, in centimeters and inches, the length and width of the mattress for which the item is designed and the size designation of the mattress if the item is intended to fit a mattress identified as “twin,” “double,” “queen,” “king,” “California king,” etc.

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Example:
double sheet for 137 cm × 190 cm (54 in × 75 in) mattress

(Amended 1987)

(b) The quantity statement for flat sheets shall state, in centimeters and inches, the length and width of the mattress for which the sheet is designed, followed in parentheses by a statement, in centimeters and inches, of the length and width of the finished sheet. The quantity statement shall also state the size designation of the mattress for which the sheet is designed, such as "twin," "double," "queen," "king," "California king," if the item is intended to fit such a mattress.

Example:
twin flat sheet for 99 cm ×190 cm (39 in × 75 in) mattress, 167 cm × 244 cm (66 in × 96 in) finished size

(Amended 1987)

(c) The quantity statement for pillowcases shall state, in centimeters and inches, the length and width of the pillow for which the pillowcase is designed, followed in parentheses by a statement, in centimeters and inches of the length and width of the finished pillowcase. The quantity statement for pillowcases shall also state the size designation of the pillow for which the pillowcase is designed, for example, "youth," "standard," "queen," etc., if the item is intended to fit such pillows.

Example:
standard pillowcase for 51 cm × 66 cm (20 in × 26 in) pillow, 51 cm × 76 cm (20 in × 30 in) in finished size

(Amended 1977 and 1987)

(d) The quantity statement for blankets, comforters, quilts, bedspreads, mattress pads, afghans, and throws shall state, in centimeters and inches, the length and width of the finished item. The quantity statement shall also state the length of any ornamentation and the size designation of the mattress for which the item is designed, if it is intended to fit, for example, a "twin," "double," "queen," "king," "California king," etc., mattress.

(Amended 1988)

(e) The quantity statement for tablecloths and napkins shall state, in centimeters and inches, the length and width of the finished item. The quantity statement also may state parenthetically, in centimeters and inches, the length and width of the item before hemming and be properly identified as such.

(f) The quantity statement for curtains, drapes, flags, furniture scarves, etc., shall state, in centimeters and inches, the length and width of the finished item. The quantity statement also may state parenthetically, in centimeters and inches, the length of any ornamentation.

(g) The quantity statement for carpets and rugs shall state, in meters and feet, with any remainder in decimal fractions of the meter for SI sizes or common or decimal fractions of the foot or in inches for U.S. customary sizes, the length and width of the item. The quantity statement also may state parenthetically, in centimeters and inches, the length of any ornamentation.

(h) The quantity statement for woven dishtowels, dishcloths, towels, facecloths, utility cloths, bathmats, etc., shall state, in centimeters and inches, the length and width of the item. The quantity statement for such items, when knitted, need not state the dimensions.

(i) The quantity statement for textile products such as potholders, fixture and appliance covers, slipcovers, non-rectangular diapers, etc., shall be stated in terms of count and may include size designations and dimensions.

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(j) The quantity statement for other than rectangular textile products identified in Sections (a) through (h) shall state the geometric shape of the product and the dimensions that are customarily used in describing such geometric shape.

Examples:
round scarf, 190 cm (74 in) in diameter;
oval tablecloth, 177 cm × 254 cm (70 in × 100 in) representing the maximum length and width in this case.

(k) The quantity statement for packages of remnants of textile products of assorted sizes, when sold by count, shall be accompanied by the term "irregular dimensions" and the minimum size of such remnants.
(Added 1971)

10.9.3. Sewing Threads, Handicraft Threads, and Yarns. – Sewing and handicraft threads shall be labeled as follows:

(a) The net quantity for sewing and handicraft threads shall be expressed in terms of meters and yards.

(b) The net quantity statement for yarns shall be expressed in terms of mass or weight.

(c) Thread products may, in lieu of name and address, bear a trademark, symbol, brand, or other mark that positively identifies the manufacturer, packer, or distributor provided such marks are filed with the Director.

(d) Each unit of industrial thread shall be marked to show its net length in terms of meters and yards or its net weight in terms of kilograms or grams and avoirdupois pounds or ounces, except that ready-wound bobbins that are not sold separately shall not be required to be individually marked to show the number of bobbins contained therein and the net meters and yards of thread on each bobbin.

10.10. Packaged Seed. – Packages of seeds intended for planting with net contents of less than 225 g or 8 oz shall be labeled in full accord with this regulation except as follows:

(a) The quantity statement shall appear in the upper 30 % of the principal display panel.

(b) The quantity statement shall be in terms of:

(1) the largest whole SI unit for all packages with weights up to 7 g; and

(2) in grams and ounces for all other packages with weights less than 225 g or 8 oz.
(Amended 1995)

(c) The quantity statement for coated seed, encapsulated seed, pelletized seed, pre-planters, seed tapes, etc., shall be in terms of count.
(Added 1972) (Amended 1975 and 1993)

10.11. *Cannabis* and *Cannabis*-Containing Products (See *Section 10.11. NOTE*)

10.11.1. Definition. – *Cannabis* is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa, indica, ruderalis* are species., and any hybridization thereof. This definition includes products that contain 0.3 percent or less of Total Delta-9 Tetrahydrocannabinol (THC) (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as *cannabis*, marijuana, or marihuana).

10.11.2. Labeling. – Any *Cannabis* or *Cannabis*-containing products intended for human or animal consumption or application, shall bear on the outside of the package the following:

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(a) On the principal display panel

(1) The statement "Contains *Cannabis*." The word "*Cannabis*" shall be capitalized and italicized; and

(2) The statement "Contains 0.3 % or less Total Delta-9 THC" or "Contains more than 0.3 % Total Delta-9 THC"; and

(b) On back or side panel

(1) a declaration of the labeled cannabinoid per serving or application; and

(2) the cannabinoid quantity declaration shall be in milligrams.

Section 10.11. NOTE: The use of italicized text in the references to "*Cannabis*" is only to denote its proper taxonomy.
(Added 2023)

Section 11. Exemptions [see *Section 11. NOTE*]

Section 11. NOTE: Exemptions include several requirements that refer only to the historic use of U.S. customary units or are direct restatements of exemptions contained in federal laws or regulations which do not include SI units. SI equivalents are omitted in most of these requirements because the SI units would not be meaningful or useful.

(Added 1993) (Amended 1995)

11.1. Random Packages. – A random package bearing a label conspicuously declaring:

(a) the net weight;

(b) unit price; and

(c) the total price

shall be exempt from the SI units, type size, location, and free area requirements of this regulation. In the case of a random package packed at one place for subsequent sale at another, neither the price per unit of weight nor the total selling price need appear on the package, provided the package label includes both such prices at the time it is offered or exposed for sale at retail.

This section shall also apply to uniform weight packages of fresh fruit or vegetables labeled by count, in the same manner and by the same type of equipment as random packages exempted by this section, and cheese and cheese products labeled in the same manner and by the same type of equipment as random packages exempted by this section.
(Amended 1989)

11.1.1. Indirect Sale of Random Packages. – A random package manufactured or produced and offered for indirect sale (e.g., e-commerce, online, phone, fax, catalog, and similar methods) shall be exempt from the labeling requirements of:

(a) unit price

(b) total price

when the following requirements are met:

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At the time of the delivery, each package need only bear a statement of net weight, provided that:

(a) the unit price is set forth and established in the initial product offering;

(b) the maximum possible net weight, unit price, and maximum possible price are provided to the customer by order confirmation when the product is ordered; and

(c) when the product is delivered, the customer receives a receipt bearing the following information: identity, declared net weight, unit price, and the total price.

Indirect Sales: For the purpose of Section 11.1.1. Indirect Sale of Random Packages, indirect sales are sales where the customer makes a selection and places an order, but cannot be present when the determination of the net quantity is made. Examples of such indirect methods include, without limitation, Internet or online sales, sales conducted by telephone or facsimile, and catalog sales.

(Added 2001) (Amended 2002)

11.2. Small Confections. – Individually wrapped pieces of "penny candy" and other confectionery of less than 15 g or 1/2 oz net weight per individual piece shall be exempt from the labeling requirements of this regulation when the container in which such confectionery is shipped is in conformance with the labeling requirements of this regulation. Similarly, when such confectionery items are sold in bags or boxes, such items shall be exempt from the labeling requirements of this regulation, including the required declaration of net quantity of contents, when the declaration of the bag or box meets the requirements of this regulation.

11.3. Small Packages of Meat or Meat Products. – Individually wrapped and labeled packages of meat or meat products of less than 15 g or 1/2 oz net weight, which are in a shipping container, need not bear a statement of the net quantity of contents when the statement of the net quantity of contents on the shipping container is in conformance with the labeling requirements of this regulation.

(Added 1987)

11.4. Individual Servings. – Individual serving size packages of foods containing less than 15 g or 1/2 oz or less than 15 mL or 1/2 fl oz for use in restaurants, institutions, and passenger carriers, and not intended for sale at retail, shall be exempt from the required declaration of net quantity of contents specified in this regulation.

11.5. Cuts, Plugs, and Twists of Tobacco and Cigars. – When individual cuts, plugs, and twists of tobacco and individual cigars are shipped or delivered in containers that conform to the labeling requirements of this regulation, such individual cuts, plugs, and twists of tobacco and cigars shall be exempt from such labeling requirements.

11.6. Reusable (Returnable) Glass Containers. – Nothing in this Regulation shall be deemed to preclude the continued use of reusable (returnable) glass containers, provided such glass containers ordered after the effective date of this regulation shall conform to all requirements of this regulation.

11.7. Cigarettes and Small Cigars. – Cartons of cigarettes and small cigars, containing ten individual packages of twenty, labeled in accordance with the requirements of this regulation shall be exempt from the requirements set forth in Section 8.1.1. Location, Section 8.2.1. Minimum Height of Numbers and Letters, and Section 10.4. Multiunit Packages, provided such cartons bear a declaration of the net quantity of commodity in the package.

11.8. Packaged Commodities with Labeling Requirements Specified in Federal Laws and Regulations. – Packages of alcoholic beverages (i.e., beer, distilled spirits, and wine), cosmetics, catfish (Siluriformes), meat and meat products, medical devices, over-the-counter drugs, poultry products, tobacco and tobacco products, and pesticides shall be exempt from those portions of these regulations specifying location, and minimum type size of the net quantity declaration, provided net quantity of contents and other required labeling requirements (i.e., identity, responsibility) for such products are specified in federal law or regulation so as to follow reasonably sound principles of providing consumer information. (Refer to Section 11.32. SI Units, Exemptions - Consumer Commodities and Appendix C. Reference Information for Packaged Commodities and Labeling Requirements Specified in Federal Laws and Regulations.)

(Amended 2018)

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11.9. Fluid Dairy Products, Ice Cream, and Similar Frozen Desserts.

(a) When packaged in 1/2 liq pt and 1/2 gal containers, are exempt from the requirements for stating net contents of 8 fl oz and 64 fl oz, which may be expressed as 1/2 pt and 1/2 gal, respectively.

(b) When measured by and packaged in measure containers as defined in "Measure Container Code" of the NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing Measuring Devices" are exempt from the requirements of Section 8.1.1. Location that the declaration of net contents be located within the bottom 30 % of the principal display panel.

(c) Milk and milk products when measured by and packaged in glass or plastic containers of 1/2 pt, 1 pt, 1 qt, 1/2 gal, and 1 gal capacities are exempt from the placement requirement of Section 8.1.1. Location that the declaration of net contents be located within the bottom 30 % of the principal display panel, provided other required label information is conspicuously displayed on the cap or outside closure and the required net quantity of contents declaration is conspicuously blown, formed, or molded on, or permanently applied to that part of the glass or plastic container that is at or above the shoulder of the container.

(Amended 1993)

11.10. Single Strength and Less than Single-Strength Fruit Juice Beverages, Imitations thereof, and Drinking Water.

(a) When packaged in glass, plastic, or fluid milk type paper containers of 8 fl oz and 64 fl oz capacity, are exempt from the requirements of Section 6.2. Largest Whole Unit to the extent that net contents of 8 fl oz and 64 fl oz (or 2 qt) may be expressed as 1/2 pt (or half pint) and 1/2 gal (or half gallon), respectively.

(b) When packaged in glass or plastic containers of 1/2 pt, 1 pt, 1 qt, 1/2 gal, and 1 gal capacities, are exempt from the placement requirements of Section 8.1.1. Location that the declaration of net contents be located within the bottom 30 % of the principal display panel, provided other label information is conspicuously displayed on the cap or outside closure and the required net quantity of contents declaration is conspicuously blown, formed, or molded into or permanently applied to that part of the glass or plastic container that is at or above the shoulder of the container.

(Amended 1993)

11.11. Soft Drink Bottles. – Bottles of soft drinks shall be exempt from the placement requirements for the declaration of:

(a) identity when such declaration appears on the bottle closure; and

(b) quantity when such declaration is blown, formed, or molded on or above the shoulder of the container and when all other information required by this regulation appears only on the bottle closure.

11.12. Multiunit Soft Drink Packages. – Multiunit packages of soft drinks are exempt from the requirement for a declaration of:

(a) responsibility when such declaration appears on the individual units and is not obscured by the multiunit packaging or when the outside container bears a statement to the effect that such declaration will be found on the individual units inside; and

(b) identity when such declaration appears on the individual units and is not obscured by the multiunit packaging.

11.13. Butter. – When packaged in 4 oz, 8 oz, and 1 lb packages with continuous label copy wrapping, butter is exempt from the requirements that the statement of identity (Section 3.1.1. Parallel Identity Declaration: Consumer Package) and the net quantity declaration (Section 8.1.5. Parallel Quantity Declaration) be generally parallel to the

base of the package. When packaged in 8 oz and 1 lb units, butter is exempt from the requirement for location (Section 8.1.1. Location) of net quantity declaration.

(Amended 1980 and 1993)

11.14. Eggs. – Cartons containing 12 eggs shall be exempt from the requirement for location (Section 8.1.1. Location) of net quantity declaration. When such cartons are designed to permit division in half, each half shall be exempt from the labeling requirements of this regulation if the undivided carton conforms to all such requirements.

11.15. Flour. – Packages of wheat flour in conventional 2, 5, 10, 25, 50, and 100 lb packages shall be exempt from the requirement in this regulation for location (Section 8.1.1. Location) of the net quantity declaration.

(Amended 1980 and 1993)

11.16. Small Packages. – On a principal display panel of 32 cm^2 (5 in^2) or less, the declaration of quantity need not appear in the bottom 30 % of the principal display panel if that declaration satisfies the other requirements of this regulation.

(Amended 1980)

11.17. Decorative Containers. – The principal display panel of a cosmetic marketed in a "boudoir-type" container, including decorative cosmetic containers of the "cartridge," "pill box," "compact," or "pencil" variety, and those with a capacity of 7.4 mL (1/4 oz) or less, may be a tear-away tag or tape affixed to the decorative container and bearing the mandatory label information as required by this regulation.

(Amended 1980)

11.18. Combination and Variety Packages. – Combination and variety packages are exempt from the requirements in this regulation for:

(a) location (see Section 8.1.1. Location);

(b) free area (see Section 8.1.4. Free Area); and

(c) minimum height of numbers and letters (see Section 8.2.1. Minimum Height of Numbers and Letters).

(Amended 1989)

11.19. Margarine. – Margarine in 1 lb rectangular packages, except for packages containing whipped or soft margarine or packages containing more than four sticks, shall be exempt from the requirement in this regulation for location (see Section 8.1.1. Location) of the net quantity declaration. The statement of net quantity shall appear in a clear and conspicuous manner on the principal display panel. (see Labels: definition; required features, **9 C.F.R. § 317.2**)

(Amended 1980, 1993, and 2021)

11.20. Corn Flour and Corn Meal. – Corn flour and corn meal packaged in conventional 5 lb, 10 lb, 25 lb, 50 lb, and 100 lb bags shall be exempt from the requirement in this regulation for location (see Section 8.1.1. Location) of the net quantity declaration.

(Amended 1978 and 1980)

11.21. Prescription and Insulin Containing Drugs. – Prescription and insulin containing drugs subject to the provisions of Sections 503(b)(1) or 506 of the Federal Food, Drug, and Cosmetic Act shall be exempt from the provisions of this regulation.

11.22. Camera Film, Video Recording Tape, Audio Recording Tape, and Other Image and Audio Recording Media Intended for Retail Sale and Consumer Use. – Image and audio media packaged and labeled for retail sale are exempt from the net quantity statement requirements of this regulation that specify how measurement of commodities should be expressed, provided:

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(a) **Unexposed or Unrecorded Media.** – The net quantity of contents of unexposed or unrecorded image and audio media is expressed:

(1) For still film, tape, or other still image media, in terms of the usable or guaranteed number of available still image exposures. The length and width measurements of the individual exposures, expressed in millimeters or inches, are authorized as an optional statement.

Examples:
36 exposures, 36 mm × 24 mm, or
12 exposures, 2 1/4 in × 2 1/4 in

(2) For bulk or movie film, in terms of length (in meters or feet) of film available for exposure.

(3) For all other image and/or audio media, in terms of length of time of electronic media available for recording, together with recording and/or playing speed or other machine settings as necessary. Supplemental information concerning the length of the media [see ***Section 11.22. NOTE***] may be provided.

Supplemental information may be provided on other than the principal display panel.

(b) **Exposed, Recorded, or Processed Media.** – The net quantity of contents of exposed or processed film or prerecorded electronic media shall be expressed in terms of the length of time that is of entertainment value.

"Entertainment value" is defined as that portion of a film, tape, or other media that commences with the first frame of sound or picture, whichever comes first after the countdown sequence (if any), and ends with either: (a) the last frame of credits; (b) the last frame of the phrase "The End"; or (c) the end of sound, whichever is last.

(Amended 1990)

Section 11.22. NOTE: Size, length of media, and format details to ensure interchangeability and other characteristics of audio and imaging media are available in the applicable American National Standards.

11.23. Tint Base Paint. – Tint base paint may be labeled on the principal display panel in terms of a liter, quart, or a gallon, including the addition of colorant selected by the purchaser, provided the system employed ensures that the purchaser always obtains a liter, quart, or a gallon; and further provided, in conjunction with the required quantity statement on the principal display panel, a statement indicating that the tint base paint is not to be sold without the addition of colorant is presented; and further provided the contents of the container, before the addition of colorant, is stated in fluid ounces elsewhere on the label.

Wherever the above conditions cannot be met, containers of tint base paint must be labeled with a statement of the actual net contents prior to the addition of colorant in full accord with all the requirements of this regulation.

(Added 1972) (Amended 1980 and 1993)

11.24. Motor Oil in Cans. – Motor oils when packed in cans bearing the principal display panel on the body of the container are exempt from the requirements of Section 3. Declaration of Identity: Consumer Package to the extent that the Society of Automotive Engineers (SAE) viscosity number is required to appear on the principal display panel, provided the SAE viscosity number appears on the can lid and is expressed in letters and numerals in type size of at least 6 mm or 1/4 in.

(Amended 1974, 1980, and 1993)

11.25. Pillows, Cushions, Comforters, Mattress Pads, Sleeping Bags, and Similar Products. – Those products including pillows, cushions, comforters, mattress pads, and sleeping bags that bear a permanent label as designated by the International Association of Bedding and Furniture Law Officials (**iabflo.org**) or the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS) (**bhgs.dca.ca.gov**) shall be exempt from the requirements for location (Section 8.1.1. Location), size of letters or numbers (Sections 8.2.1. Minimum Height of Numbers and Letters and 8.2.2. Numbers and Letters: Proportion), free area (Section 8.1.4. Free Area), and the declarations of

identity and responsibility (Sections 3.1. Declaration of Identity and 5. Declaration of Responsibility: Consumer and Non-Consumer Packages), provided declarations of identity, quantity, and responsibility are presented on a permanently attached label and satisfy the other requirements of this Regulation, and further provided the information on such permanently attached label be fully observable to the purchaser.

(Added 1973) (Amended 2019)

11.26. Commodities' Variable Weights and Sizes. – Individual packaged commodities put up in variable weights and sizes for sale intact and intended to be weighed and marked with the correct quantity statement prior to or at the point of retail sale are exempt from the requirements of Section 6. Declaration of Quantity: Consumer Packages while moving in commerce and while held for sale prior to weighing and marking, provided the outside container bears a label declaration of the total net weight.

(Added 1973)

11.27. Packaged Commodities Sold by Count. [see *Section 11.27. NOTE*] – When a packaged consumer commodity is properly measured in terms of count only, or in terms of count and some other appropriate unit, and the individual units are fully visible to the purchaser, such packages shall be labeled in full accord with this Regulation, except that those containing six or less items need not include a statement of count.

(Added 1973)

Section 11.27. NOTE: When the net contents declaration of a package that may enter interstate commerce includes count, federal regulations under the Federal Fair Packaging and Labeling Act provide no exemption from declaring the count unless the count is one (1).

(Added 1990)

11.28. Textile Packages. – Packages of textiles that are required by Section 6.4.1. Combination Declaration to provide a combination declaration stating the quantity of each individual unit and the count shall be exempt from the requirements in this regulation for:

(a) Location (see Section 8.1.1. Location);

(b) Free area (see Section 8.1.4. Free Area); and

(c) Minimum height of numbers and letters (see Section 8.2.1. Minimum Height of Numbers and Letters).

(Added 1971) (Amended 1989)

11.29. Spot Label. – The declaration of quantity of the contents of a package is exempt from Section 8.1.1. Location requiring the quantity declaration to appear in the bottom 30 % of the principal display panel, as long as the declaration of quantity appears in the lower 30 % of the spot label. In no case may the size of the spot label be used to determine the minimum type size; see Section 8.2. Calculation of Area of Principal Display Panel for Purposes of Type Size for this determination.

(Added 1990)

11.30. Header Strip. – The declaration of quantity of the contents of a package is exempt from Section 8.1.1. Location requiring the quantity declaration to appear in the bottom 30 % of the principal display panel, as long as the declaration of quantity appears in the lower 30 % of the header strip or header label. In no case may the size of the header strip be used to determine the minimum type size; see Section 8.2. Calculation of Area of Principal Display Panel for Purposes of Type Size for this determination.

(Added 1990)

11.31. Decorative Wallcovering Borders. – Decorative wallcovering borders when packaged and labeled for retail sale shall be exempt from the requirements of Sections 6.6.2. One Meter, 1 Square Meter, 1 Kilogram, l Liter, 1 Cubic Meter, or More; 6.8.2. One Foot, 1 Square Foot, 1 Pound, 1 Pint, 1 Gallon or More; and 6.9. Bi-dimensional

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Commodities provided the length and width of the border are presented in terms of the largest whole unit in full accord with the other requirements of the regulation.

(Added 1992) (Amended 1993)

11.32. SI Units, Exemptions - Consumer Commodities. – The requirements for statements of quantity in SI units (except for those in Section 10.10. Packaged Seed and Section 11.22. Camera Film, Video Recording Tape, Audio Recording Tape and Other Image and Audio Recording Media Intended for Retail Sale and Consumer Use) in Section 6. Declaration of Quantity: Consumer Packages shall not apply to:

(a) foods packaged at the retail store level;

(b) random weight packages (see Sections 2.4. Random Package and 11.1. Random Packages);

(c) package labels printed before February 14, 1994;

(d) meat and poultry products subject to the Federal Meat or Poultry Products Inspection Acts;

(e) tobacco or tobacco products;

(f) any beverage subject to the Federal Alcohol Administration Act;

(g) any product subject to the Federal Insecticide, Fungicide, and Rodenticide Act;

(h) drugs and cosmetics subject to the Federal Food, Drug and Cosmetic Act;

(i) nutrition labeling information.

11.33. U.S. Customary Units, Exemptions - Consumer Commodities. – The requirements for statements of quantity in U.S. customary units shall not apply to packages that bear appropriate SI units. This exemption does not apply to foods, drugs, or cosmetics or to packages subject to regulation by the FTC, meat and poultry products subject to the Federal Meat or Poultry Products Inspection Acts, and tobacco or tobacco products. (see UPLR Appendix C. Reference Information for Packaged Commodities with Labeling Requirements Specified in Federal Laws and Regulations.)

(Added 1999)

11.34. Bacon. – Bacon packages as sliced shingles in rectangular packages shall be exempt from the requirement in this regulation for location (see Section 8.1.1. Location) of the net quantity declaration. The statement of net quantity shall appear in a clear and conspicuous manner on the principal display panel. (see Labels: definition; required features, **9 C.F.R. § 317.2**)

(Added 2021)

Section 12. Variations to be Allowed

12.1. Packaging Variations. [see *Section 6.12. NOTE*]

12.1.1. Variations from Declared Net Quantity. – Variations from the declared net weight, measure, or count shall be permitted when caused by unavoidable deviations in weighing, measuring, or counting the contents of individual packages that occur in current good manufacturing practice, but such variations shall not be permitted to such extent that the average of the quantities in the packages of a particular commodity or a lot of the commodity that is kept, offered, or exposed for sale, or sold is below the quantity stated, and no unreasonable shortage in any package shall be permitted even though overages in other packages in the same shipment, delivery, or lot compensate for such shortage. Variations above the declared quantity shall not be unreasonably large.

12.1.2. Variations Resulting from Exposure. – Variations from the declared weight or measure shall be permitted when caused by ordinary and customary exposure to conditions that normally occur in current good distribution practice and that unavoidably result in change of weight or measure, but only after the commodity is introduced into intrastate commerce, provided the phrase “introduced into intrastate commerce” as used in this

paragraph shall be construed to define the time and the place at which the first sale and delivery of a package is made within the state, the delivery being either:

(a) directly to the purchaser or to his/her agent; or

(b) to a common carrier for shipment to the purchaser,

and this paragraph shall be construed as requiring that so long as a shipment, delivery, or lot of packages of a particular commodity remains in the possession or under the control of the packager or the person who introduces the package into intrastate commerce, exposure variations shall not be permitted.

12.2. Magnitude of Permitted Variations.[see *Section 6.12. NOTE*] – The magnitude of package variations of this regulation permitted under Sections 12. Variations to be Allowed, 12.1. Package Variations, 12.1.1. Variations from Declared Net Quantity, and 12.1.2. Variations Resulting from Exposure shall be those expressly set forth in this regulation and variations such as those contained in the procedures and tables of NIST Handbook 133, "Checking the Net Contents of Packaged Goods."

(Amended 1976, 1980, 1984, and 1988)

Section 13. Revocation of Conflicting Regulations

All provisions of all orders and regulations heretofore issued on this same subject that are contrary to or inconsistent with the provisions of this regulation and specifically _____ are hereby revoked.

Section 14. Effective Date

This regulation shall become effective on _____.

Given under my hand and the seal of my office in the City of _____ on this _____ day of _____.

Signed _____

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UPLR Appendix A: SI/U.S. Customary Conversion Factors**

Length							
1 mil (0.001 in)	=	25.4	µm*	1 micrometer	=	0.039 370	mil
1 inch	=	2.54	cm*	1 millimeter	=	0.039 370 1	in
1 foot	=	30.48	cm*	1 centimeter	=	0.393 701	in
1 yard	=	0.914 4	m*	1 meter	=	3.280 84	ft
1 rod	=	5.029 2	m*				
Area							
1 square inch	=	6.451 6	cm^2*	1 square centimeter	=	0.155 000	in^2
1 square foot	=	929.030	cm^2	1 square decimeter	=	0.107 639	ft^2
1 square yard	=	0.836 127	m^2	1 square meter	=	10.763 9	ft^2
Volume or Capacity							
1 cubic inch	=	16.387 1	cm^3	1 cubic centimeter	=	0.061 023 74	in^3
1 cubic foot	=	0.028 316 8 28.316 8	m^3 L	1 cubic decimeter	=	0.035 314 7	ft^3
				1 cubic meter	=	35.314 7 1.307 95	ft^3 yd^3
1 cubic yard	=	0.764 555	m^3				
1 fluid ounce	=	29.573 5	mL	1 milliliter (cm^3)	=	0.033 814	fl oz
1 liquid pint	=	473.177 0.473 177	mL L	1 liter	=	1.056 69 0.264 172	liq qt gal
1 liquid quart	=	946.353 0.946 353	mL L	1 dry pint	=	550.610 5	mL
				1 dry quart	=	1.101 221	L
1 gallon	=	3.785 41	L	1 peck	=	8.809 768	L
1 bushel	=	35.239 1	L	1 gill	=	118.294 1	mL
Mass (weight)							
1 ounce	=	28.349 5	g	1 milligram	=	0.000 035 274 0.015 432 4	oz grain
1 pound	=	453.592 37 0.453 592	g* kg	1 gram	=	0.035 274	oz
1 grain	=	64.798 91	mg	1 kilogram	=	2.204 62	lb
Temperature							
$t_°F = (t_°C \times 1.8) + 32$				$t_°C = (t_°F - 32) \div 1.8$			

* Exactly

** These conversion factors are given to six or more significant digits in the event such accuracy is necessary. To convert to U.S. customary units, divide the factor rather than multiplying.
(Amended 1998)

UPLR Appendix B: Converting U.S. Customary Units to SI Units for Quantity Declarations on Packages

1. Conversion.

To convert an U.S. customary quantity to an SI quantity, multiply the appropriate conversion factor in Appendix A by the U.S. customary unit and round according to the following rules.

2. Rounding and Significant Digits.

It is the packager's responsibility to round converted values appropriately and select the appropriate number of significant digits to use in quantity declaration. [These rounding rules are for converting quantity determinations on packages and do not apply to digital scales that automatically round indications to the nearest indicated value.] Conversions, the proper use of significant digits, and rounding must be based on the packer's knowledge of the accuracy of the original measurement that is being converted. For example, if a package is labeled 453.59 g (1 lb), the packer is implying that the package declaration is accurate within ± 0.005 g (or ± 5 mg). For liquid volume measure, a label declaration of 473 mL (16 fl oz) implies that the package declaration is accurate to within ± 0.5 mL (0.01 fl oz). The requirements of 6.13. Rounding apply to all quantity declarations that are derived from converted values:

> **6.13. Rounding.** – In all conversions for the purpose of showing an equivalent SI or U.S. customary quantity to a rounded U.S. customary or SI quantity, or in calculated values to be declared in the net quantity statement, the number of significant digits retained must be such that accuracy is neither sacrificed nor exaggerated. Conversions, the proper use of significant digits, and rounding must be based on the packer's knowledge of the accuracy of the original measurement that is being converted. In no case shall rounded net contents declarations overstate a quantity; the packer may round the converted values down to avoid overstating the net contents.

NOTE: When as a result of rounding SI or U.S. customary declarations calculated based on the conversion factors in Appendix A, the resulting declarations are not exact, the largest declaration, whether metric or U.S. customary, will be used for enforcement purposes to determine whether a package contains at least the declared amount of the product.

Do not round conversion factors or any other quantity used or determined in the calculation; only round the final quantity to the number of significant digits needed to maintain the accuracy of the original quantity. Use the rounding rules presented below in Table 1 as guidance to round the final result. In general, quantity declarations on consumer commodities should only be shown to two or three significant digits (for example, 453 g or 85 g). Any final zeros to the right of the decimal point need not be expressed. The U.S. customary and SI declarations of quantity must be accurate and equivalent to each other. For example, a package bearing a net weight declaration of 2 lb (32 oz) must also include an SI declaration of 907 g.

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Table 1. Rounding Rules

When the First Digit Dropped is:	The Last Digit Retained is:	Examples
less than 5	Unchanged	2.44 to 2.4 2.429 to 2.4
more than 5, or 5 followed by at least 1 digit other than 0	Increased by 1	2.46 to 2.5 2.451 to 2.5
5 followed by zeros	Unchanged if Even, or Increased by 1 if Odd	2.450 to 2.4 2.550 to 2.6

(a) When the first digit discarded is less than 5, the last digit retained should not be changed. For example, if the quantity 984.3 is to be declared to three significant digits, the number 3 to the right of the decimal point must be discarded since it is less than 5 and the last digit to be retained (the number 4) will remain unchanged. The rounded number will read 984. The same rationale applies to numbers declared to two significant digits (for example 68.4 and 7.34); again, the final digit is dropped and the last digit retained remains unchanged so that the "rounded-off" numbers become 68 and 7.3 respectively.

(b) When the first digit to be discarded is greater than 5, or it is a 5 followed by at least one digit other than zero, the last digit to be retained should be increased by one unit.

Examples:
984.7 becomes 985
984.51 becomes 985
6.86 becomes 6.9
6.88 becomes 6.9

(c) When the first digit to be discarded is exactly 5, followed only by zeros, the final digit to be retained should be rounded up if it is an odd number (1, 3, 5, 7, or 9), but no adjustment should be made if it is an even number (2, 4, 6, or 8).

Examples:
984.50 becomes 984
985.50 becomes 986
68.50 becomes 68
7.450 becomes 7.4
7.550 becomes 7.6

***NOTE**: See additional examples in Table 2.

3. Additional Advice on Rounding and Significant Digits.

(a) These rules require the packer to use good judgment in making decisions on how to round and the number of significant digits to use in quantity declarations. Rounding should always be done in one step; for example, if 16.946 47 g has to be rounded to three significant digits, it should be rounded to 16.9 g, not 16.946 5 g, then to 16.946 g, then to 16.95 g, which would then round to 17.0 g (see rounding rules above).

(b) Do not use rounded SI values to calculate quantities. For example, using 1 in = 25.4 mm, rounded to 25 mm, should not be multiplied by 2 to determine the SI equivalent for 2 in. The SI equivalent for 2 in is determined by multiplying 2 in × 25.4 mm = 50.8 mm, then rounding to 51 mm.

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(c) If a dimension given as 8 ft is valid to the nearest 1/10 in, consider it to mean 96.0 in and treat it as having three significant digits. The rounded dimension would then be 2.44 m instead of 2.4 m.

(d) Conversions using a multiple digit conversion factor usually give a product with more digits than the original quantity. The final product should contain no more significant digits than are contained in the number with the fewest significant digits used in the conversion. For example, the area of a sheet of paper is determined on a calculator by multiplying 1.25 cm (length) × 1.5 cm (width) = 1.875 cm^2. The product given to four significant digits on the calculator cannot be any more accurate than two significant digits (the number of significant digits in 1.5 cm), so the area should be declared as 1.9 cm^2.

(e) Packagers of consumer commodities should be aware that when a converted value is rounded up, there may be a need to (1) increase the package contents and/or, (2) select a converted value that does not exaggerate the precision of the quantity or overstate the net contents. For example, under the rules above, a net weight declaration of 16 oz (453.592 37 g) may be rounded up to 454 g for three significant digits. Inspections by weights and measures officials are typically conducted using devices with a resolution of 0.5 g or less. If the packer does not address this possibility, some lots of commodities may pass when the U.S. customary declaration is tested, but fail when the SI declaration is verified.

Table 2. Examples

Weight: To convert ounces to grams, multiply ounces by 28.349 5 grams		
U.S. Customary	**Calculated SI**	**Rounded SI**
1.0 oz	28.349 5 g	28 g
5.0 oz	141.747 6 g	142 g
10 1/4 oz	290.582 38 g	291 g*
16.0 oz	453.592 4 g	454 g*
32.0 oz	907.184 g	907 g
48.0 oz	1 360.776 g	1.36 kg
5 lb	2.267 962 kg	2.27 kg*
10 lb	4.535 924 kg	4.54 kg*
25 lb	11.339 81 kg	11.3 kg
Liquid Volume: to convert fluid ounces to milliliters, multiply fluid ounces by 29.573 5 milliliters		
U.S. Customary	**Calculated SI**	**Rounded SI**
1.0 fl oz	29.573 5 mL	30 mL*
8.0 fl oz	236.588 mL	237 mL*
16.0 fl oz	473.176 mL	473 mL
32.0 fl oz	946.353 mL	946 mL
1 gal	3.785 41 L	3.79 L*
2 1/2 gal	9.463 525 L	9.46 L
5 gal	18.927 05 L	18.9 L

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Dry Measure: to convert dry pints to milliliters, multiply dry pints by 550.610 5 milliliters		
U.S. Customary	**Calculated SI**	**Rounded SI**
1 dry pt	550.610 5 mL	551 mL*
1 dry qt	1.101 221 L	1.1 L
Length: to convert inches to millimeters, multiply inches by 25.4 millimeters		
U.S. Customary	**Calculated SI**	**Rounded SI**
10.5 in	266.7 mm	267 mm* or 26.7 cm*
1 ft	30.48 cm	305 mm* or 30.5 cm*
5 ft	152.4 cm	152 cm or 1.5 m
50 ft	15.240 03 m	15.2 m
100 ft	30.480 06 m	30.5 m*

* See 6.13. Rounding located under UPLR Appendix B

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UPLR Appendix C: Reference Information for Packaged Commodities with Labeling Requirements Specified in Federal Law and Regulation

Product Agency	Code of Federal Regulations (C.F.R.)	Net Quantity of Contents Requirements, Guides, or Other Information
Alcoholic Beverages, Wine, and Beer Treasury Department – Alcohol and Tobacco Tax and Trade Bureau **www.ttb.gov**	**Alcohol, 7 C.F.R., Chapter I, Subchapter A.**	Refer to: – Part 4 "Labeling and Advertising of Wine" at **https://www.ttb.gov/wine/beverage-alcohol-manual** – Part 5 "Labeling and Advertising of Distilled Spirits." at **https://www.ttb.gov/distilled-spirits/beverage-alcohol-manual** – Part 7 "Basic Mandatory Labeling Information for Malt Beverages." **https://www.ttb.gov/beer/beverage-alcohol-manual**.
Animal Food Food and Drug Administration (FDA) **www.fda.gov**	**Animal Food Labeling, 21 C.F.R. § 501 (1996), Chapter I, Subchapter E – Animal Drugs, Feeds and Related Products. Subpart F – Exemptions, Animal Food Labeling Requirements**	Refer to **Animal Food Labeling, Exemptions from Animal Food Labeling, C.F.R. § 501.105**.
Catfish* (Siluriformes) U.S. Department of Agriculture (USDA) – Food Safety and Inspection Service **www.fsis.usda.gov**	**Requirements for Inspection, 9 C.F.R. § 532.**	Refer to **Labels: definition; required features, 9 C.F.R. 541.7.** *Fish of the order Siluriformes include, but are not limited to, ''catfish'' (fish of the family Ictaluridae) and ''basa'' and ''swai'' (fish of the family Pangasiidae).
Cosmetics Food and Drug Administration (FDA) **www.fda.gov**	Cosmetic Labeling, 21 C.F.R. § 701 (1980)	Refer to Declaration of net quantity of contents, 21 C.F.R. § 701.13. See also: **https://www.fda.gov/cosmetics/cosmetics-labeling**
Meat & Poultry Products U.S. Department of Agriculture (USDA) – Food Safety and Inspection Service **www.fsis.usda.gov**	Meat and Meat Products: **Labeling, Marking Devices and Containers, 9 C.F.R. § 317, Chapter III, Subchapter A (1970)**	Refer to **Labels: Definitions; required features, 9 C.F.R. § 317.2.**

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Product Agency	Code of Federal Regulations (C.F.R.)	Net Quantity of Contents Requirements, Guides, or Other Information
Over-the-Counter Medical Devices Food and Drug Administration (FDA) **www.fda.gov**	**Labeling, 21 C.F.R. § 801, Chapter I, Subchapter H. Medical Devices**	Refer to **Declaration of net quantity of contents, 21 C.F.R. § 801.62**
Over-the-Counter Drugs Food and Drug Administration (FDA) **www.fda.gov**	**Labeling, 21 C.F.R. 201 (1976), Chapter I, Subchapter C.**	Refer to Subpart C - Labeling Requirements for Over-the-Counter Drugs, Declaration of net quantity of contents, **21 C.F.R. § 201.62.**
Pesticides Environmental Protection Agency (EPA) **www.epa.gov**	**Labeling Requirements for Pesticides and Devices, 40 C.F.R. § 156 (2001), Chapter I, Subchapter E**	**Refer to Labeling Requirements, 40 C.F.R. § 156.10** See also: "Pesticide Registration – Label Review Manual" at **www.epa.gov/pesticide-registration/label-review-manual.**
Tobacco and Tobacco Products Food and Drug Administration (FDA) **www.fda.gov**	**https://www.fda.gov/tobacco-products/rules-regulations-and-guidance/section-903-federal-food-drug-and-cosmetic-act-misbranded-tobacco-products**	Since 2009 FDA has regulated all tobacco products including e-cigarettes, hookah tobacco, and cigars. The exceptions to the UPLR Sections 11.5. "Cuts, Plugs, and Twists of Tobacco and Cigars" and Section 11.7. "Cigarettes and Small Cigars" remain in effect as they were based on U.S. Treasury Department labeling requirements for smokeless tobacco (chewing tobacco and snuff) and recognize traditional methods of sale of tobacco in cuts, plugs, and twists as well as cigars.

Regulations are codified annually in the U.S. Code of Federal Regulations (C.F.R.) online at: **https://www.ecfr.gov/** and **https://www.govinfo.gov/app/collection/cfr**.

(Added 2018)

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B. Uniform Regulation for the Method of Sale of Commodities

as adopted by
The National Council on Weights and Measures*

1. Background

The National Council on Weights and Measures (NCWM) has long been concerned with the proper units of measurement to be used in the sale of all commodities. This approach has gradually broadened to concerns of standardized package sizes and general identity of particular commodities. Requirements for individual products were at one time made a part of the Weights and Measures Law or were embodied in separate individual Model Regulations. In 1971, this "Model State Method of Sale of Commodities Regulation" was established (renamed in 1983); amendments have been adopted by the Conference almost annually since that time.

Sections with "added 1971" dates refer to those sections that were originally incorporated in the Weights and Measures Law or in individual Model Regulations recommended by the NCWM. Subsequent dates reflect the actual amendment or addition dates.

The 1979 edition included, for the first time, requirements for items packaged in quantities of the International System of Units (SI), the modernized metric system, as well as continuing to present requirements for U.S. customary quantities. It should be stressed that nothing in this Regulation requires changing to the SI system of measurement. SI values are given for the guidance of those wishing to adopt new SI quantities of the commodities governed by this Regulation. SI means the International System of Units as established in 1960 by the General Conference on Weights and Measures and interpreted or modified for the United States by the Secretary of Commerce.

This Regulation assimilates all of the actions periodically taken by the NCWM with respect to certain food items, non-food items, and general method of sale concepts. Its format is such that it will permit the addition of individual items at the end of appropriate sections as the need arises. Its adoption as a regulation by individual jurisdictions will eliminate the necessity for legislative consideration of changes in the method of sale of particular commodities. Such items will be able to be handled through the normal regulation-making process.

The Conference recognized that some states may only adopt the Method of Sale of Commodities Regulation but have the legal authority in their weights and measures law to also regulate and take enforcement action in the areas of fuels and related products. For this reason, the user will find fuels and related products within this regulation. A brief summary related to the development of regulations on these products can be found in the Background information of the Uniform Fuels and Automotive Lubricants Regulation. Efforts have been made when practical to align both regulations.

(Amended 2021)

2. Status of Promulgation

The table beginning on page 11 shows the status of adoption of the Uniform Regulation for the Method of Sale of Commodities.

*The National Council on Weights and Measures (NCWM) is supported by the National Institute of Standards and Technology (NIST) in partial implementation of its statutory responsibility for "cooperation with the states in securing uniformity in weights and measures laws and methods of inspection."

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National Construction Safety Team Act Reports—This series comprises the reports of investigations carried out under Public Law 107-231, the technical cause(s) of the building failure investigated; any technical recommendations for changes to or the establishment of evacuation and emergency response procedures; any recommended specific improvements to building standards, codes, and practices; and recommendations for research and other appropriate actions to help prevent future building failures.

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Voluntary Product Standards—Developed under procedures published by the Department of Commerce in Part 10, Title 15, of the Code of Federal Regulations. The standards establish nationally recognized requirements for products, and provide all concerned interests with a basis for common understanding of the characteristics of the products. NIST administers this program in support of the efforts of private-sector standardizing organizations.

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NIST Interagency or Internal Reports (NISTIR)—The series includes interim or final reports on work performed by NIST for outside sponsors (both government and nongovernment). In general, initial distribution is handled by the sponsor; public distribution is handled by sales through the National Technical Information Service, Springfield, VA 22161, in hard copy, electronic media, or microfiche form. NISTIR's may also report results of NIST projects of transitory or limited interest, including those that will be published subsequently in more comprehensive form.

Uniform Laws and Regulations in the areas of Legal Metrology and Fuel Quality

NIST Handbook 130 2026

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