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MH10.8.6 – 2003

Bar Codes and Two-Dimensional (2D) Symbols for Product Packaging

Approved: 28 August 2003

Abstract

This standard is an application standard for the marking of product packages with linear bar code and two-dimensional symbols. It defines minimum requirements for identifying product packages that are distributed outside the originating location. It specifies label data content and requirements, including data element requirements; data representation; rules for encoding of mandatory and optional elements in machine-readable symbols; and human readable information.

Developed by:

MH10 Committee, Unit-Loads and Transport-Packages
Subcommittee 8, Coding & Labeling of Unit-Loads

Published by MH10 Secretariat:

Material Handling Industry
8720 Red Oak Blvd., Suite 201
Charlotte, NC 28217-3992
mhstandards@mhia.org

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Phone: 704-676-1190, Fax: 704-676-1199
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Printed in the United States of America.

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Approved August 28, 2003
American National Standards Institute, Inc.

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Foreword (This foreword is not part of American National Standard MH10.8.6-2003)

This standard is an application standard for the marking of product packages with linear bar code and two-dimensional symbols. It defines minimum requirements for identifying product packages that are distributed outside the originating location. It specifies label data content and requirements, including data element requirements; data representation; rules for encoding of mandatory and optional data elements in machine-readable symbols; and human readable information.

Bar codes and Two-Dimensional (2D) Symbols for Product Packaging provides the option of one of four different linear bar code symbols and one of three different two-dimensional symbols. It relies upon the technology standards and data semantic and syntax standards developed within ASC MH10. These standards have in turn been published internationally through the work of ISO/IEC JTC 1/SC 31.

The international equivalent of this standard is the international standard ISO 22389, developed by ISO Technical Committee 122/Working Group 7. ANSI MH10.8.6 and ISO 22389 were developed concurrently and differ primarily with a recommended/preferred two-dimensional symbol in the ANS while the ISO standard provides no such recommendation or preference.

At the time of approval, the MH10/SC 8 committee consisted of the following members:

Automotive Industry Action Group	Morris Brown
Boeing	Frank Goodell
Bruno Associates	Thomas Bruno
Canada Post	Ken Cavanagh
CEA	Brian Markwalter
DoD AIT Project Office	Maurice Stewart; Dan Kimball (Alternate); Eugene Bransfield (Alternate)
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Telcordia Technologies	Robert Fox
Texas Instruments	Dan Wikander
United Parcel Service	Mark Lewis
United States Air Force	Mark Reboulet; Howard English (Alternate)
United States Postal Service	Himesh Patel

At the date of approval of this standard, the MH10 Committee, Unit-Loads and Transport-Packages, consisted of the following members:

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American Trucking Associations
American Wood Packaging Association
APA – The Engineered Wood Association
Assoc. of Professional Material Handling Consultants
ASTM
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U.S. Dept. of Agriculture
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Suggestions for improvement, and questions regarding interpretation of this standard will be welcome. They should be sent to: MH 10 Committee (MHIA), Material Handling Industry of America, 8720 Red Oak Blvd., Suite 201, Charlotte, NC, 28217-3992 or mhstandards@mhia.org.

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BAR CODES AND TWO-DIMENSIONAL (2D) SYMBOLS FOR PRODUCT PACKAGING

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BAR CODES AND TWO-DIMENSIONAL (2D) SYMBOLS FOR PRODUCT PACKAGING

1 SCOPE

This standard:

- specifies the minimum requirements for the design of labels containing linear bar code and two-dimensional symbols on product packages to convey data between trading partners,
- provides guidance for the formatting on the label of data presented in linear bar code, two-dimensional symbol or human readable form,
- provides specific recommendations regarding the choice of linear bar code and 2D symbologies, specifies quality requirements, classes of bar code density,
- provides specific recommendations regarding 2D symbologies that allows a broad choice for general use of scanning hardware, specifically, area imagers, single line laser scanners, and rastering laser scanners, and
- makes recommendations as to label placement, size and the inclusion of free text and any appropriate graphics.

In this document, the word "shall" indicates a requirement and the word "should" indicates a recommendation. Both labels and direct marking methods are referred to in this standard under the term "label".

This standard does not supersede or replace any applicable safety or regulatory marking or labeling requirements. This standard is meant to satisfy the minimum product package requirements of numerous applications and industry groups. As such its applicability is to a wide range of industries, each of which may have specific implementation guidelines for this standard. This standard is to be applied in addition to any other mandated labeling requirements.

Before implementing this specification, suppliers and manufacturers should review and mutually agree on specific labeling details with their trading partners. The labeling requirement of this standard and other standards may be combined into one label or appear as separate labels.

2 PURPOSE

The purpose of this standard is to establish the machine readable (e.g. bar code) and human readable data content of labels applied to product packages.

3 NORMATIVE REFERENCES

ISO 3166-1	Codes for the representation of names of countries and their subdivisions, Part 1: Country Codes