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

GB/T 19946-2022

Replacing GB/T 19946-2005

**Packaging - Bar code and two-dimensional symbols for
shipping, transport and receiving labels**

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Table of Contents

Preface	
Introduction	
1 Scope	1
2 Normative references	1
3 Terms and Definitions	2
4 Overview	2
4.1 Principle	2
4.2 Transport unit unique identifier	2
4.3 Label format	3
5 Data content	3
5.1 Data representation	3
5.2 Data unit	3
5.3 Linking data fields in 1D barcode symbologies	5
5.4 Structured data files	5
5.5 Data area identifier	6

foreword

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

This document replaces GB/T 19946-2005 "One-dimensional barcodes and two-dimensional barcodes for packaging for shipping, shipping and receiving labels", and is consistent with

Compared with GB/T 19946-2005, except for structural adjustment and editorial changes, the main technical changes are as follows.

a) According to the actual usage, MaxiCode in this document is deleted (see 6.2, Appendix A, C.2.11, E.2.2 of the.2005 edition),

Application of MicroPDF417 (see B.3.9 of the.2005 edition);

b) Changed the description of the scope and added "Not applicable to one-dimensional barcodes and two-dimensional barcodes printed directly on the surface of colored kraft corrugated paper

Code" content (see Chapter 1, Chapter 1 of the.2005 edition);

c) Changed the normative references (see Chapter 2, Chapter 2 of the.2005 edition);

d) Changed the terms and definitions, added the terms and definitions defined in GB/T 4122.1 and GB/T 12905, and deleted the term "sorting"

Terms and definitions (see Chapter 3, Chapter 3 of the.2005 edition);

e) Deleted the loading unit and transport packaging (see 4.2 of the.2005 edition);

f) Added "Delivery and Receipt Data" (see 5.4.2), "Supporting Document Application" (see 5.4.3) and "Carrier Data" for structured data files

Sorting and tracking applications" (see 5.4.4);

g) Added "Data Area Identifier" (see 5.5);

h) Added one-dimensional barcode symbology representation (see 6.1);

i) Added the suggestion of two-dimensional barcode system QR code (see 6.2.1);

j) Added "language selection" (see 6.3.5);

k) Added relevant factors that should be considered when designing labels (see 7.1.3);

l) The distance between the label of the transport package and the transport package with a height not greater than 1m, the bottom edge of the unique identifier of the transport unit to the actual package has been changed.

For the bottom distance of the installation, "2.5cm~7.6cm" is changed to "32mm" (see 8.3, 8.3 of the.2005 edition);

m) Changed the "Guidelines for the use of one-dimensional barcode symbols", incorporated the code system of one-dimensional barcode symbols and other related content into Appendix A, and added "General

Then ""scan a system with a single option""scan a system with multiple options" (see Appendix A, 6.1 of the.2005 edition);

n) The "Guidelines for the use of two-dimensional barcode symbols" has been changed, and the relevant content of QR codes and Chinese Sensible codes has been added (see Appendix B,.2005 edition

6.2).

This document is modified to adopt ISO 15394.2017 "One-dimensional barcode and two-dimensional barcode for packaging for shipping, shipping and receiving labels".

Compared with ISO 15394.2017, this document has made the following structural adjustments.

- Increase the numbering structure of the article to conform to the writing habits of Chinese standards;
- Adjust serial number 4.3 to serial number 4.2, and serial number 4.4 to 4.3;
- Express B.2.2 with items to comply with the writing habits of our country's standards;
- Adjust the serial number B.4.4 to B.4.3;
- Adjust the position of Table 1 from 7.3.4 to 5.2.1.2 to comply with the writing habits of our country's standards;
- Adjust the position of Table 2 from 7.3.4 to 7.3.3.1 to comply with the writing habits of our standards;
- Adjust the position of Table B.3~Table B.8 from B.2.3.8.5.2 to Table B.2~Table B.7 of B.2.3.8.1, in order to comply with Chinese standards

Habit;

- Adjust the position of Table B.9 from B.2.4.8.2.3 to Table B.8 of B.2.4.8.1 to comply with the writing habits of Chinese standards;
- Adjusted the order of Appendix C and Appendix D to comply with the writing habits of our standards.

The technical differences between this document and ISO 15394.2017 and their reasons are as follows.

- Changed the scope description stipulated in the document (see Chapter 1) to conform to the scope description method of our country.
- Regarding the normative reference documents, this document has made adjustments with technical differences to adapt to the technical conditions of our country and the circumstances of the adjustments

The situation is reflected in Chapter 2 "Normative References", and the specific adjustments are as follows.

- * Deleted ISO /IEC 16023.2000, ISO /IEC 19762, ANSIMH10.8.2;
- * Replace ISO 21067 with GB/T 4122.1;
- * Added references to national standards GB/T 12905, GB/T 15425, GB/T 16986, GB/T 18348, GB/T 21049

And the international standard ISO /IEC 24728.

- Modified the terms and definitions (see Chapter 3).
- Deleted "transport packaging, unit cargo and transport unit" (see Chapter 4) to be

consistent with the description of the relevant content of my country's transport packaging.

---Modify "ANSIMH10.8.2" to "ASCMH10" to express in a standardized way.

---Because my country has two national standards GB/T 15425 and GB/T 18347 corresponding to GS1-128 barcode and 128 barcode respectively, so add

Add code representation (see 5.1.1, 6.1, A.4).

---Because my country uses the Maxicode two-dimensional barcode system, the use of MacroPDF417 and MicroPDF417 barcode symbols is very rare

Less, so delete the application of MaxiCode, MacroPDF417, MicroPDF417.

---This document is not applicable to one-dimensional barcodes and two-dimensional barcodes printed directly on the surface of colored kraft corrugated paper, so the colored

Directly print related descriptions on the surface of kraft corrugated paper (see A.11, B.2.3.6).

---Deleted the relevant content of the QR code symbolic link (see B.3.4.7, B.3.4.8, B.3.4.9), and added the rules for the use of Hanxin code symbols

(See Appendix B) to adapt to the actual situation in our country.

---Modify the MaxiCode symbol in "Examples of Labels Using License Plate Number and Two-Dimensional Barcode Symbols to Represent Trading Partner Data" to Hanxin

Code symbols (see Figure E.8 to Figure E.10) to adapt to the actual situation in our country.

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

Introduction

During the transportation and handling of goods, electronic data exchange for the purpose of tracking goods requires the identification and use of unique identifiers

Link electronic data with transport unit.

Barcoded shipping labels are widely used around the world, but different standards are used, each meeting the needs of a specific industry. for

To improve operational efficiency within and between industries and reduce costs, a common standard should be developed.

The use of shipping labels with barcode identification can facilitate the automation of shipping operations. The barcode information on the shipping label can be used as an access