

**ANSI MH10.8.2-2016**



American National Standard  
***Data Identifier and  
Application Identifier Standard***

Approved: June 10, 2016

**Abstract**

This standard provides a comprehensive dictionary of MH 10/SC 8 Data Identifiers and GS1 Application Identifiers, provides for the assignment of new Data Identifiers, as required, and provides a document detailing the correlation, or mapping, of Data Identifiers to Application Identifiers, where a correlation exists.



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## Foreword

It is the mission of this committee to develop a comprehensive dictionary of Data and Application Identifiers, assign new Data Identifiers, as required, and to provide a document detailing the correlation, or mapping, of Data Identifiers to Application Identifiers, where a correlation exists.

As with any American National standard, as new requirements are identified, interested parties request the assignment of new Data Identifiers and Application Identifiers to meet the needs of a particular industry or activity. ANSI has designated this standard as being "Under Continuous Maintenance". Proposed changes to the standard that are accepted by the MH10.8.2 Data Identifier Committee shall be integrated into the previously published version at the recommendation of the committee. Upon approval of the new version by MH10 Subcommittee 8 and the full MH10 committee, the standard will be published as a new version.

The committee plans to incorporate accepted revisions into the standard as frequently as necessary, but in no case will a published revised standard be issued more frequently than yearly, in line with indicated needs and industry developments. Each accepted revision since the last published version shall be identified in a "Document Maintenance Summary" appearing immediately before the Table of Contents of the standard.

This standard has been updated from the last published issue of ANS MH10.8.2 representing the fourth five-year revision of the standard, published in 2015, published in 2006, published in 2002; the first revision occurring in 1995. Requests received subsequent to the date of the standard will be added to the draft standard for trial use and will be considered for incorporation at the fifth five-year revision of the standard.

Users desiring assignment of new Data Identifiers may submit their request to:

**EMAIL:** [DIrequests@mhi.org](mailto:DIrequests@mhi.org)

**MAIL:** DIMC

c/o MHI

8720 Red Oak Blvd – Suite #201

Charlotte, NC 28007-3992

USA

**PHONE:** +1 704.676.1190 Ask for Data Identifier Request Desk

Users desiring assignment of new Application Identifiers may submit their request to <http://www.gs1.org/>.

**Note:**

The following annexes are provided:

- Annex A Quick Reference to Data Identifier (DI) Categories
- Annex B Annotated Listing of Assigned Data Identifier (DI) Categories
- Annex C Data Identifier (DI) Application Notes
- Annex D ANS X12.3 Data Element Number 355 Unit of Measure Code
- Annex E ANS X12.3 Data Element Number 374 Date/Time Codes
- Annex F ANS X12.3 Data Element Numbers 208 & 209 Hazardous Material Codes
- Annex G ISO 4217 Currencies and Funds Codes
- Annex H ISO 3166-1 Country Codes
- Annex I Data Identifier and Application Identifier Request Forms & Metadata
- Annex J User Guidance
- Annex K System Identifiers
- Annex L Identifiers for Returnable Packaging Items
- Annex M Material categories and material codes

**At the time of approval, the MH10 committee consisted of the following members:**

- |                                                       |                                                |
|-------------------------------------------------------|------------------------------------------------|
| American Trucking Associations                        | Material Handling Industry                     |
| American Wood Packaging Association                   | Material Handling Management Society           |
| APA - The Engineered Wood Association                 | Millwood, Inc.                                 |
| Association of American Railroads                     | National Wooden Pallet & Container Association |
| Assoc. of Professional Material Handling Consultants  | Packaging Machinery Manufacturers Institute    |
| ASTM                                                  | Paper Shipping Sack Mfg. Association           |
| Automotive Industry Action Group                      | Plastic Drum Institute                         |
| Containerization & Intermodal Institute, Inc.         | Q.E.D. Systems                                 |
| Fibre Box Association                                 | Rack Manufacturers Institute                   |
| Flexible Intermediate Bulk Containers Association     | Reusable Industrial Packaging Association      |
| Glass Packaging Institute                             | Steel Shipping Container Institute             |
| GS1 US                                                | The Coca-Cola Company                          |
| IDEAlliance                                           | The Soap & Detergent Association               |
| Institute of Packaging Professionals                  | U.S. Air Force                                 |
| Integrated Business Communications Alliance           | U.S. Dept. of Agriculture                      |
| Intermec Technologies Corporation                     | U.S. Dept. of Defense AIT Office               |
| International Association of Movers                   | U.S. Forest Products Laboratory                |
| International Cargo Handling Coordination Association | United Parcel Service                          |
| International Foodservice Distributors Association    | Virginia Tech – Center for Unit Load Design    |
| International Safe Transit Association                |                                                |

**Data Identifier Maintenance Committee**

ANSI MH10.8.2 is a reference standard to ISO/IEC 15418 (GS1 Application Identifiers and MH 10/SC 8 Data Identifiers). As such a Data Identifier Maintenance Committee was established representing diverse interests from various countries. Data Identifier Maintenance Committee Members are:

- |                                                                     |                                          |
|---------------------------------------------------------------------|------------------------------------------|
| Bill Hoffman, Automotive Industry Action Group (AIAG) Interim Chair | Heinrich Oehlmann, Eurodata Council, DIN |
| Hiromitsu Takai, Denso Wave, SC 31 Committee of Japan               | John Wells, IPC Technology, UPU          |
| Sten Lindgren, ODX Consulting AB                                    | Mark Lewis, United Parcel Service (UPS)  |
| Robert Fox, R Fox Enterprises                                       | Craig MacDougall, USD (AT&L)/DPAP/PDI    |
| Erich Guenter, IBM (Germany) & EDIFICE                              |                                          |

## DOCUMENT MAINTENANCE SUMMARY

Any changes to this document will be reflected in the Document Maintenance Summary, below.

| Date       | Action    | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2016-01-07 | Add       | <p>10N - Data in the format and using semantics defined by the holder of a Company Identification Number (CIN) that has been issued by an Issuing Agency Code (IAC) in accordance with ISO/IEC 15459, defined as a sequence of concatenated data elements: IAC, followed by CIN, followed by the separator character ":" (colon) followed by the data in the format and using semantics as defined by the CIN holder.</p> <p>NOTE: Only the data syntax rules (if any) as provided by the declared IAC+CIN within each DI "10N" data stream shall be applied to the data following DI 10N+IAC+CIN.</p>       |
| 2016-07-19 | Add       | <p>30B – Packaging Item Number.</p> <p>Number to identify the type of packaging item (material) used when packing products and packages</p> <p>The number will enable packaging item (material) be identified and separated from products, packages, Returnable Transport Items (RTIs) and Returnable Packaging Items (RPIs) during packing.</p> <p>The number is constructed as a sequence of minimum 1 data element:</p> <p>Packaging item (material) number that is unique within the holder's domain.</p>                                                                                                |
| 2016-07-19 | Add       | <p>31B – Global Unique Packaging Number</p> <p>Global unique number to identify the type of packaging item (material) used when packing products and packages.</p> <p>The global unique number will enable packaging items (materials) be identified and separated from products, packages, Returnable Transport Items (RTIs) and Returnable Packaging Items (RPIs) during packing.</p> <p>The number is constructed as a sequence of 3 concatenated data elements:</p> <p>The IAC, followed by the CIN, followed by the Packaging item (material) number that is unique within the CIN holder's domain.</p> |
| 2016-08-12 | Corrected | <p>10N - Due to an error in the assignment of DI "10N" (there is no central authority for data-definition nor maintenance), no new uses of DI "10N" should be implemented.</p> <p>The function of DI "10N" is established in Category 18, MISCELLANEOUS with DI "5R".</p> <p>It is strongly recommended that existing applications that use DI "10N" migrate to DI 5R".</p>                                                                                                                                                                                                                                  |



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# Data Identifier and Application Identifier Standard

## 1. Scope

This standard provides a comprehensive dictionary of MH 10/SC 8 Data Identifiers and GS1 Application Identifiers, provides for the assignment of new Data Identifiers, as required, and provides a document detailing the correlation, or mapping, of Data Identifiers to Application Identifiers, where a correlation exists.

This standard does not supersede or replace any applicable safety or regulatory marking or labeling requirements. The standard is to be applied in addition to any other mandated labeling requirements.

Unless otherwise stated within the document, the allowable character set for data fields identified by an ANS MH10.8.2 Data Identifier are the upper case alphabetic characters A to Z and the numeric characters 0 to 9.

## 2. Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

|                           |                                                                                                                                                           |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISO/IEC 646               | Information technology -- ISO 7-bit coded character set for information interchange                                                                       |
| ISO 3166-1                | Codes for the representation of names of countries and their subdivisions - Part 1: Country codes                                                         |
| ISO 4217                  | Codes for the representation of currency and funds                                                                                                        |
| ISO/IEC 15418             | Information technology – Automatic identification and data capture techniques – GS1 Application Identifiers and ASC MH10 Data Identifiers and maintenance |
| ISO/IEC 15424             | Information technology – Automatic identification and data capture techniques – Data carrier identifiers (including Symbology Identifiers)                |
| ISO/IEC 15459-1           | Information technology - Automatic Identification and Data Capture Techniques — Unique identification -- Part 1: Individual transport units               |
| ISO/IEC 15459-2           | Information technology – Unique identifiers— Part 2: Registration procedures                                                                              |
| ISO/IEC 19762             | Information technology - Automatic identification and data capture (AIDC) techniques -- Harmonized vocabulary                                             |
| UN/EDIFACT Code List 8053 | United Nations Directories for Electronic Data Interchange for Administration, Commerce and Transport – Equipment Type Code Qualifier                     |
| UN/EDIFACT Code List 3035 | United Nations Directories for Electronic Data Interchange for Administration, Commerce and Transport – Party Function Code Qualifier                     |
| UPU Standard M82-3        | Universal Postal Union – Attribute Definitions                                                                                                            |
| ANS X12.3                 | Electronic Data Interchange Data Element Dictionary                                                                                                       |
| ANSI HIBC 2.3             | The Health Industry Bar Code (HIBC) Supplier Labeling Standard                                                                                            |
| IEEE 802.11               | Wireless LANs                                                                                                                                             |