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Interested committees:

Title: Draft BS ISO 830 Freight containers - Vocabulary.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

DRAFT INTERNATIONAL STANDARD

ISO/DIS 830

ISO/TC 104

Secretariat: ANSI

Voting begins on:
2023-09-14

Voting terminates on:
2023-12-07

Freight containers — Vocabulary

Conteneurs pour le transport de marchandises — Vocabulaire

ICS: 55.180.10; 01.040.55

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 104 Freight containers WG 09 Revision of ISO 830.

This third edition cancels and replaces the second edition (ISO 860:1999).

The main changes compared to the previous edition are as follows:

- New additions to definitions have been added to the freight container suite of standards

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The standard, ISO 830 Freight containers – Vocabulary, was first published in 1981 alongside many of the original standards developed for the freight container and was amended in 1999 to reflect the development of freight containers and the introduction of new container types and terms.

It is worth reflecting on the earliest discussions regarding the size of freight containers. When the standard lengths were initially presented as imperial dimensions (40, 30, 20 and 10 ft sizes) the number of container types were limited to those designed to carry just freight.

Type 0	General purpose container - 5 variations
Type 1	Closed container (vented and ventilated) – 5 variations
Type 2	Thermal containers (insulated, heated and named cargo containers) – 5 variations
Type 3	Thermal containers (refrigerated and refrigerated and heated) – 3 variations
Type 4	Thermal containers (refrigerated and/or heated with removable equipment) 3 variations
Type 5	Open top container – 4 variations
Type 6	Platform (platform-based container with incomplete superstructure and platform-based container with complete superstructure and open sided) – 8 variations
Type 7	Tank containers – 10 variations
Type 8	Reserved for dry bulk containers (in 1984 these types of containers had not yet been incorporated into TC 104 standards)
Type 9	Air/surface containers

In 1984 a total of 44 variations of container had been identified to transport freight (including a livestock carrier and a vehicle carrier).

The technical panel developing freight container standards were approached by countries where metric dimensions were primarily used who wanted to confirm the container sizes that had been in use in the UIC (Union Internationale des Chemins de fer). At the time a spirit of compromise prevented this proposal from being rejected outright. The committee accepted these container sizes and called them Series 2 containers. Later, Eastern European countries wanted their own sizes, so these were called Series 3 containers.

In January 1968 the first international recommendation from ISO was R-388 which defined the terminology, dimensions and ratings of containers and included all three series. But demand for Series 2 or Series 3 containers for this new service called “intermodal containers” was non-existent, everyone went to Series 1, and several plenary meetings later, it was agreed to drop the Series 2 and 3.

Terminology from R 388 formed the first edition of this standard and has been amended and expanded to reflect additional container types and variations. ISO 6346:2022 lists 71 variations including non-cargo carrying designs.

Concurrently with the increase of container types and variations, has been the development of regional and national container. These too carry freight and comply with the definition of a container as described in the International Convention for Container Safety (CSC Code) and therefore could be described as “freight containers” and to a lay person, appear to be no different to the “series 1 freight container”. Therefore, this latest edition of this standard brings terms and definitions from all freight containers and [clause 3](#) identifies the various terms that are used to describe and differentiate the various types of container used internationally and regionally.

It should also be noted that the terms “freight container” or “shipping container” is used to differentiate it from other types of container that cannot be used intermodally. Therefore, any structure that outwardly appears to be freight container whether it is able to transport freight or not, is referred to as a “freight container”,

Freight containers — Vocabulary

1 Scope

This International Standard presents definitions of terms relating to containers.

NOTE 1 The different parts and components used in the construction of containers are specified in ISO 9897

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. The latest editions of the referenced documents, including any amendments, applies.

ISO 668, *Series 1 freight containers — Classification, dimensions and ratings*

ISO 1496-1, *Series 1 freight containers — Specification and testing — Part 1: General cargo containers for general purposes*

ISO 1496-2, *Series 1 freight containers — Specification and testing — Part 2: Thermal containers*

ISO 1496-3, *Series 1 freight containers — Specification and testing — Part 3: Tank containers for liquids, gases and pressurized dry bulk*

ISO 1496-4, *Series 1 freight containers — Specification and testing — Part 4: Non-pressurized containers for dry bulk*

ISO 1496-5, *Series 1 freight containers — Specification and testing — Part 5: Platform and platform-based containers*

ISO 3874, *Series 1 freight containers — Handling and securing*

ISO 6346, *Freight containers — Coding, identification and marking*

ISO 9897, *Freight containers — Container equipment data exchange (CEDEX) — General communication codes*

ISO 10374, *Freight containers — Automatic identification*

3 Terms and Definitions General

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org>

3.1

container

an article of transport equipment which is:

- of a permanent character and accordingly strong enough to be suitable for repeated use;
- specially designed to facilitate the transport of goods, by one or more modes of transport, without intermediate reloading;

- designed to be secured and/or readily handled, having corner fittings for these purposes;
- and, of a size such that the area enclosed by the four outer bottom corners is either:
 - at least 14 m² (150 sq ft) or
 - at least 7 m² (75 sq ft) if it is fitted with top corner fittings,

but does not include vehicles or packaging.

[SOURCE: *International Convention for Safe Containers, 1972, as amended (CSC)*]

3.2

freight container

article of transport equipment which is

- a) of a permanent character and accordingly strong enough to be suitable for repeated use;
- b) specially designed to facilitate the carriage of goods by one or more modes of transport, without intermediate repacking;
- c) fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another;
- d) so designed to be easy to pack/fill and empty;
- e) having an internal volume of at least 6 m³ (211,9 ft³)

Note 1 to entry: The term “freight container” includes neither vehicles nor conventional packing.

Note 2 to entry: Also known as a shipping container

3.3

intermodal container

a container that can be moved from one transport mode to another without requiring its contents to be repacked.

3.4

ISO container

container complying with the most recent versions of all relevant ISO TC 104 container standards in existence at the time of its manufacture

3.4.1

Series 1 freight container

An ISO container that complies with ISO 668 and tested in accordance with the latest version of the relevant part of ISO 1496.

3.5

smart container

a container that may embed track & trace and/or monitoring systems

3.6

reduced stacking and/or racking capabilities

where the designed and tested stacking and/or racking values are:

- a) less than the stated stacking and racking capabilities in the latest version of the appropriate part of the ISO 1496 standard series, or
- b) less than 192,000 kg and 150 kN, respectively (source CSC)