GUIDE 41

Second edition
2018-10

Packaging — Recommendations for addressing consumer needs

Emballage — Recommandations pour répondre aux besoins des consommateurs

Reference number
ISO/IEC GUIDE 41:2018(E)

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

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 and IEC 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) or the IEC list of patent declarations received (see http://patents.iec.ch).

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 the ISO Committee on Consumer Policy (COPOLCO).

This second edition cancels and replaces the first edition (ISO/IEC Guide 41:2003), which has been technically revised.

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

— expansion of the scope to include secondary and tertiary packaging, and other aspects such as labelling information and distribution channels;

— additional provisions on safety and sustainability of packaging to address the needs of vulnerable consumers;

— reference to ISO 18601 and related documents on packaging and the environment;

— additional guidance for suitability for intended purpose;

— integration of the iterative process of risk assessment and risk reduction using the approach of ISO/IEC Guide 51;

— updated references to other ISO/IEC Guides on product information for consumers, instructions for use of consumer products, child safety, safety aspects in standards and accessibility;

— addition of clauses on presentation of information, recognizability and uniformity, and legibility of text.

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.

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Introduction

Packaging of products is of consumer interest, the cost of which is borne indirectly by the consumer. Standardization of aspects of packaging addresses such factors as safety, intended purpose and reliability, as well as such general needs as protection of the environment and energy conservation.

Aspects of packaging can vary in various jurisdictions and/or industry standards or technical specifications. Suppliers can establish, implement and maintain a procedure to identify the applicable laws and regulations of the countries where the consumer products are manufactured, imported, distributed and sold.

The objective of this document is to optimize the direct and indirect benefits to purchasers of products with respect to the following criteria:

— design: designing suitable packaging to preserve the packaged product until the moment of use;

— safety: protecting consumers from hazards associated with the packaging or the product, including health and safety, e.g. in cases of reuse;

— information: providing consumer information about the packaged product and its packaging;

— packaging: avoidance of misleading packaging;

NOTE Further information on misleading packaging practices is provided in a study published by the European Parliament[37].

— storage: enabling consumers to store the packaged product appropriately;

— cost impact: optimizing packaging to reduce total cost and the environmental impact of the packaged product and its packaging;

— environment: reuse and recovery to optimize the use of the packaging and dispose of it in a manner that minimizes its environmental impact.

A supplier of high quality packaging can benefit from an enhanced reputation. Cost savings in time and money can also be achieved by reduced levels of enquiries and complaints.

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Packaging — Recommendations for addressing consumer needs

1 Scope

This document provides general recommendations to be taken into consideration when determining the most suitable type of packaging for products intended for consumers. The functions that packaging can perform include, but are not limited to, containment, protection, handling, transport, storage, convenience, information and presentation.

This document also considers the sustainable use of resources covering optimization, reuse and recovery of packaging.

This document provides guidance to:

— product designers, manufacturers and others engaged in the process of making decisions concerning packaging;

— those drafting standards to meet the packaging needs and requirements of consumers as prospective purchasers of products;

— committees preparing standards for consumer products or services;

— regulators.

This document is not applicable to bulk packaging, which is solely intended to protect products in bulk when being transported between manufacturers and retailers, and it is not intended for industrial packaging.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
consumer
individual member of the general public purchasing or using goods, property or services for private purposes

[SOURCE: ISO 14025:2006, 3.16]

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3.2
packaging
product (3.24) to be used for the containment, protection, handling, delivery, storage, transport and presentation of goods, from raw materials to processed goods, from the producer to the user or *consumer* (3.1), including processor, assembler or other intermediary

[SOURCE: ISO 21067-1:2016, 2.1.1, modified — The domain <product> has been removed at the start of the definition.]

3.3
primary packaging
packaging (3.2) designed to come into direct contact with the *product* (3.24)

[SOURCE: ISO 21067-1:2016, 2.2.3]

3.4
secondary packaging
packaging (3.2) designed to contain one or more *primary packaging* (3.3) together with any protective materials where required

[SOURCE: ISO 18601:2013, 3.20, modified — The alternative term "group packaging" has been removed.]

3.5
tertiary packaging
packaging (3.2) designed to contain one or more articles or packages, or bulk material, for the purposes of transport, handling and/or distribution

[SOURCE: ISO 21067-1:2016, 2.2.6, modified — The alternative terms "distribution packaging" and "transport packaging" have been removed.]

3.6
sales packaging
packaging (3.2) constituting, with its contents, a sales unit for the final user or *consumer* (3.1) at the point of retail

[SOURCE: ISO 21067-1:2016, 2.2.7, modified — The alternative terms "consumer packaging" and "retail packaging" have been removed.]

3.7
industrial packaging
packaging (3.2) for raw materials, components and partially manufactured or finished goods, for distribution from manufacturer to manufacturer and/or other intermediaries such as processor or assembler

[SOURCE: ISO 21067-1:2016, 2.2.8]

3.8
bulk packaging
packaging (3.2) intended to contain loose articles, large masses of solids or granular materials, or liquids for transport or storage

[SOURCE: ISO 21067-1:2016, 2.2.10]

3.9
child-resistant packaging
package consisting of a container and appropriate closure which is difficult for young children under the age of 52 months to open (or gain access to the contents), but which is not difficult for adults to use properly

[SOURCE: ISO 8317:2015, 2.3]

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3.10
reuse
operation by which *packaging* (3.2) is refilled or used for the same purpose for which it was conceived, with or without the support of auxiliary *products* (3.24) present on the market enabling the packaging to be refilled

Note 1 to entry: Non reusable items that support packaging reuse, such as labels or closures, are considered to be part of that packaging.

[SOURCE: ISO 18603:2013, 3.1]

3.11
packaging component
part of *packaging* (3.2) that can be separated by hand or by using simple physical means

[SOURCE: ISO 18601:2013, 3.11]

3.12
harm
injury or damage to the health of people, or damage to property or the environment

[SOURCE: ISO/IEC Guide 51:2014, 3.1]

3.13
hazard
potential source of *harm* (3.12)

[SOURCE: ISO/IEC Guide 51:2014, 3.2]

3.14
hazardous event
event that can cause *harm* (3.12)

[SOURCE: ISO/IEC Guide 51:2014, 3.3]

3.15
hazardous situation
circumstance in which people, property or the environment is/are exposed to one or more *hazards* (3.13)

[SOURCE: ISO/IEC Guide 51:2014, 3.4]

3.16
risk
combination of the probability of occurrence of *harm* (3.12) and the severity of that harm

Note 1 to entry: The probability of occurrence includes the exposure to a *hazardous situation* (3.15), the occurrence of a *hazardous event* (3.14) and the possibility to avoid or limit the *harm* (3.12).

[SOURCE: ISO/IEC Guide 51:2014, 3.9]

3.17
risk reduction measure
action or means to eliminate *hazards* (3.13) or reduce *risks* (3.16)

EXAMPLE *Inherently safe design* (3.20); protective devices; personal protective equipment; information for use and installation; organization of work; training; application of equipment; supervision.

[SOURCE: ISO/IEC Guide 51:2014, 3.13, modified — The alternative term “protective measure” has been removed.]

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3.18
safety
freedom from *risk* (3.16) which is not tolerable

[SOURCE: ISO/IEC Guide 51:2014, 3.14]

3.19
tolerable risk
level of *risk* (3.16) that is accepted in a given context based on the current values of society

[SOURCE: ISO/IEC Guide 51:2014, 3.15, modified — The original Note to entry has been removed.]

3.20
inherently safe design
measures taken to eliminate *hazards* (3.13) and/or to reduce *risks* (3.16) by changing the design or operating characteristics of the *product* (3.24)

[SOURCE: ISO/IEC Guide 51:2014, 3.5, modified — The words "or system" have been removed.]

3.21
vulnerable consumer
consumer (3.1) at greater *risk* (3.16) of *harm* (3.12) from *products* (3.24), due to age, level of literacy, physical or mental condition or limitations, or inability to access product *safety* (3.18) information

[SOURCE: ISO/IEC Guide 51:2014, 3.16, modified — The words "or systems" have been removed.]

3.22
x-height
height of lowercase letters, ignoring ascenders or descenders

Note 1 to entry: Annex A provides further information on x-height.

3.23
useful life
time period during which all the performance requirements are met

3.24
product
any goods or service

[SOURCE: ISO 14024:2018**,** 3.2]

4 Safety of packaging

4.1 Risk assessment and risk reduction

The iterative process of risk assessment and risk reduction for each hazard is essential in achieving acceptable/tolerable risk. All products can include hazards and, therefore, some level of residual risk.

ISO/IEC Guide 51 requires standards writers and standards users to use the iterative process of risk assessment and risk reduction measures, to achieve acceptable/tolerable risk.

4.2 Packaging materials

4.2.1 Packaging materials should be assessed for human and environmental impact of hazardous substances, including, but not limited to, four heavy metals (mercury, cadmium, lead and hexavalent chromium).

NOTE Limits to heavy metals and other substances hazardous to humans and the environment can be found in national and regional regulations.

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