

DEFINITIONS IN PREPACKAGING

Consistent definitions in prepackaging and their relationship

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1 Summary

In prepackaging, a prepackage is defined as the combination of a product and the packing material in which it is prepacked. The product is defined through the definition of “packing material” as everything that is intended to be left over after use, except for items naturally in the product. Use includes consumption or subjecting to a treatment.

The relationship between content and quantity is set by this definition: the content of a prepackage is the quantity of product in a prepackage. Content and quantity can be actual, nominal and average.

The use of the word “net” in net content and net quantity is superfluous: the quantity of product in a prepackage (or content of a prepackage) is by definition net of packing material and should not be used in the future.

2 Preface

The authors would like to thank:

- The members of WELMEC Working Group 6 for their critical comments;
- Mr. D. Hanekuyk of the European Commission for his suggestions of European Legislation.

Hints while reading this document:

- Basic definitions are marked with this symbol: ✂;
- Definitions that derive from a basic definition are in orange text;
- Clarifications and remarks are in *italics and lower case*;

- References to legislation or interpretation of legislation are in the page footers and are marked in the text with a figure (for instance: ¹).

3 Introduction

A Dutch court of law decided that individual wrappings of sweets that are sold in a bag are considered to be product rather than packing material, because the difference between product and packing material is not clear in legislation.

Two international documents are currently being revised that cover the subject of prepackaging:

- OIML Recommendation R 87 (*Net quantity of product in prepackages*);
- European Council Directives 75/106/EEC and 76/211/EEC;

This study helps to achieve international harmonization on the subject of definitions in prepackaging to facilitate fair competition and to prevent barriers to trade.

This paper gives the definitions of “prepackage”, “packing material” and “prepacked product” and their relationship in part 4 and gives guidance to terms that are related to the terms “quantity” and “contents” in chapter 5.

4 Definitions

This part gives the definitions of prepackage, packing material and prepacked product that are consistent and leave no room for misunderstanding.

4.1 Prepackage

✂ A prepackage is defined as the combination of a product and the packing material in which it is prepacked¹.

Prepackage is also referred to as “package” (USA) and “pre-package”.

¹ European Council Directive 76/211/EEC, article 2, clause 1, where “individual package” has been replaced by “packing material”.

4.2 Packing material

✂ Packing material is everything that is intended to be left over after use, except for items naturally in the product. Use includes consumption or subjecting to a treatment¹.

Packing material is also referred to as “individual package²”, “package”, “packaging”, “packaging material(s)” and “packing materials”.

Packing material is generally used to preserve, transport, inform about and as an aid while using the product it contains.

It proved to be easier to define “packing material” to differentiate between the product and packing material within a prepackage than to define “product”, which would have had the same result.

Instead of leaving it up to the packer to identify the product on the label on which the indication of quantity applies, this definition does it for him, leaving no room for misunderstanding, thus facilitating fair competition.

The definition distinguishes between product and packing material with the phrase “intended to be left over after use”. The US Weights and Measures Law differentiates with the phrase “items not considered to be part of the commodity”³ which should give the same result.

Sometimes it is not clear what part of the prepackage “is intended to be left over after use”. This is the case where certain items might or might not be used, for instance fruits in sweetened fruit-juice. Then the label of the prepackage might give guidance as to if and how to use the different items of the product (for instance by a recipe). Also several examples listed in annex III together with the application of this definition might give guidance.

Recycling, reusable (refillable) packing material or using the packing material by an end-user is still “intended to be left over after use”.

When prepackages contain solid goods in a liquid medium, the definition of packing material differentiates between the product and the liquid medium when the liquids are not naturally in the product and intended to be left over after use. This is in accordance with the definition of “net weight” of the United States Weights and Measures Law⁴.

4.3 Product

By defining the terms “prepackage” and “packing material”, there is no need to define the term “product” as it is everything apart from the packing material in a prepackage.

Product is also referred to as “commodity”, “consumer commodity”, “goods” and “contents”.

Usually the product is the reason the prepackage is purchased.

4.4 Prepacked product

✂ A product is prepacked when it is combined with packing material of whatever nature, whether such packing material encloses the product completely or only partially, without the purchaser being present and the quantity of product contained in the packing material cannot be altered without the packing material either being opened or undergoing a perceptible modification⁵.

¹ WELMEC Working Group 6, resolution 81, where “individual package” is replaced with “packing material”

² European Council Directive 76/211/EEC, article 2, clause 1

³ USA Weights and Measures Law, section 1 Definitions, 1.10: The term “net mass” or “net weight” means the weight of a commodity excluding any materials, substances, or items not considered to be part of the commodity. Materials, substances, or items not considered to be part of the commodity include, but are not limited to, containers, conveyances, bags, wrappers, packaging materials, labels, individual piece coverings, decorative accompaniments, and coupons, ...

⁴ USA Weights and Measures Law, section 1 Definitions, 1.2: The term “weight” as used in connection with any commodity or service means net weight. When a commodity is sold by drained weight, the term means net drained weight.

⁵ European Council Directive 76/211/EEC, article 2, clause 2, where:

- the phrase that “the quantity of product contained in the package has a predetermined value” has been deleted for reasons of international harmonization, “placed in” is replaced with “combined with”, and
- the phrase “whether such packaging encloses the product completely or only partially” is added to harmonize with and originates from European Council Directive 2000/13/EC, and
- the terms “package” and “packaging” are replaced by “packing material”

Product cannot be prepacked when there is no packaging material. Desiccating and hygroscopic products can only be prepacked in packing material preventing the effects.

An example of a product that is enclosed only partially by the packing material is knitting yarn.

This definition also includes prepackages of which the quantity is determined individually after the dosing of the product.

5 Linguistic problems

The word “content” has two meanings, illustrated by the following two phrases:

1. “the content of this glass jar is marmalade”, where it is used with the meaning of “product”
2. “the content of this glass jar is 200 ml”, where it is used with the meaning of “amount”

An example of the first meaning can be found in Directive 75/106/EEC (Annex I, 1.1):

The actual volume of the contents shall not be less, on average, than the nominal volume of the contents.

An example of the second meaning can be found in Directive 76/211/EEC (Annex I, 1.1):

The actual contents shall not be less, on average, than the nominal quantity

When using the terms “content” and “quantity” in relation to prepackage, product and package, it is easy to become confused, especially when interpreting different legislation.

This part sets the relationship between content and quantity, explains why the term “net” may be abolished and explains about different types of content and quantity.

A complete overview of terms is given in annex I.

5.1 Content and quantity

The relationship between content and quantity is set by these definitions:

✂ **The content of a prepackage is the quantity of product in a prepackage.**

Content is also referred to as “contents” and “quantity of content”.

The term “content” usually relates to the “product” as that is what a prepackage contains. Content of a product relates to ingredients.

✂ **The quantity of product in a prepackage is the amount of product in a prepackage.**

The term “quantity” can be replaced with:

- The “weight” of product in a prepackage is the amount of product in a prepackage expressed in kilogram;
- The “volume” of product in a prepackage is the amount of product in a prepackage expressed in litre;
- The “length” of product in a prepackage is the amount of product in a prepackage expressed in metre;
- The “area” of product in a prepackage is the amount of product in a prepackage expressed in square metre;
- The number of product in a prepackage is the amount of product in a prepackage expressed in numerical count.

The term “quantity” can apply to the product and the packing material of a prepackage. Usually the quantity of product is meant. When the quantity of packing material of a prepackage is meant, this should be formulated explicitly to prevent misunderstanding.

5.2 Actual, nominal, average

The terms “actual”, “nominal”, and “average” specify the terms “content” and “quantity”.

The nominal quantity of product in the prepackage is the quantity indicated on the prepackage.

The symbol “ Q_n ” is used to designate “nominal quantity of product”.

The nominal quantity is also referred to as “labeled quantity” and “declared quantity”.

The term “nominal quantity of product in the prepackage” has the same meaning as “nominal content of the prepackage”.

The nominal quantity of product is the quantity of product the prepackage is supposed to contain. It gives a packer a target to aim at.

The actual quantity of the product in the prepackage is the quantity of product, which the prepackage in fact contains.

The term “actual quantity of product in the prepackage” has the same meaning as “actual content of the prepackage”.

The actual quantity is a characteristic of an individual prepackage.

The average quantity of product in prepackages is the arithmetic average actual quantity of product in prepackages.

The term “average quantity of product in the prepackage” has the same meaning as “average content of the prepackage”.

The average quantity is a characteristic of any collection of prepackages, whether such a collection is termed population, batch, lot or sample.

The nominal, actual and average quantity relate differently to one another when used in a system of predetermined nominal quantity (the nominal quantity is set before dosing) and a system of individual measured quantity (the nominal quantity is set after dosing).

5.3 Net

Net content and net quantity are frequently used terms in prepackaging and in legislation. The use of the word “net” is superfluous: the quantity of product in a prepackage (or content of a prepackage) is by definition net of packing material.

This has been recognized in:

- *The European Council Directive 2000/13/EC relating to the labeling, presentation and advertising of foodstuffs, where “quantity” is regarded to be “net quantity”¹;*
- *The USA Weights and Measures Law, where “weight” is regarded to be “net weight”².*

As the terms “net quantity” and “net content” appear in legislation, these are the definitions:

✂ The net content of a prepackage is the quantity of product in a prepackage.

✂ The net quantity of product in a prepackage is the amount of product in a prepackage.

By these definitions, the term “net content of a prepackage” is equal to “content of a prepackage” and the term “net quantity of product in a prepackage” is equal to “quantity of product in a prepackage”.

In future, the term “net” may be abolished as content and quantity of product are by definition “net” of packing material.

6 Recommendations

This document can be used as a “translator” between different legislation. The definitions below set the standard for future legislation. They leave no room for misunderstanding and facilitate fair competition.

- A **prepackage** is defined as the combination of a product and the packing material in which it is prepacked.
- **Packing material** is everything that is meant to be left over after use, except for items naturally in the product. Use includes consumption or subjecting to a treatment.
- **Prepacked product:** a product is prepacked when it is placed in packing material of whatever nature, whether such packing material encloses the product completely or only partially, without the purchaser being present and the quantity of product contained in the packing material cannot be altered without the packing material either being opened or undergoing a perceptible modification.
- The **content of a prepackage** is the quantity of product in a prepackage.
- The **quantity of product in a prepackage** is the amount of product in a prepackage.
 - The **nominal quantity** of product in the prepackage is the quantity indicated on the prepackage. *The symbol “ Q_n ” is used to designate “nominal quantity of product”.*
 - The **actual quantity** of the product in the prepackage is the quantity of product, which the prepackage in fact contains.
 - The **average quantity** of product in prepackages is the arithmetic average actual quantity of product in prepackages.

In future, the term “net” in relation to content and quantity should be abolished as content and quantity of product are by definition “net” of packing material. ■

¹ European Council Directive 2000/13/EC, article 8.2(a): Where the indication of a certain type of quantity (e.g. nominal quantity, minimum quantity, average quantity) is required by Community provisions or, where there are none, by national provisions, this quantity shall be regarded as the net quantity for the purposes of this Directive.

² USA Weights and Measures Law, section 1 Definitions, 1.2: The term “weight” as used in connection with any commodity or service means net weight. When a commodity is sold by drained weight, the term means net drained weight.

Annex I Overview of terms

	prepackage		product		packing material	
	of	in	of	in	of	in
content	content of a prepackage: quantity of product	content in a prepackage: this is the product	content of the product: content of the product relates to ingredients	content in the product: anything in the product relates to ingredients	content of the packing material: quantity of product	content in the packing material: this is the product
net content	net content of a prepackage: superfluous: content is by definition 'net'	net content in a prepackage: superfluous: content is by definition 'net' this relates to 'product' which is by definition 'net' of packing material	net content of the product: content of the product relates to ingredients 'net' of what?	net content in the product: anything in the product relates to ingredients	net content of the packing material: superfluous: content is by definition 'net' of packing material	net content in the packing material: superfluous: content is by definition 'net' this relates to 'product' which is by definition 'net' of packing material
quantity	quantity of prepackage: quantity of product and packing material (gross quantity)	quantity in a prepackage: quantity of product (definition: prepackage is combination of a product and the packing material in which it is prepacked)	quantity of product: amount of product	quantity in product: quantity of identified ingredient(s) in the product (anything in the product relates to ingredients)	quantity of packing material: quantity of packaging materials	quantity in the packing material: quantity of product
net quantity	net quantity of prepackage: 'net' of what?	net quantity in a prepackage: quantity of product (which is by definition) net of the packing material	net quantity of product: amount of product, net of the packing material	net quantity in product: anything in the product relates to ingredients	net quantity of packing material: quantity of packaging materials, by definition net of the product	net quantity in packing material: quantity of product (which is by definition) net of the packing material

Annex II Definitions in legislation and official guides to legislation

	US Weights and Measures Law	US Packaging and Labelling Regulation	OIML R87 draft 3 (net quantity of product...)	OIML R79 (labelling requirements...)	76/211/EEC (e-marking...)	2000/13/EC (foodstuff...)	This study
prepackage	The term package means any container or wrapping in which any consumer commodity is enclosed for use in the delivery or display of that commodity to retail purchasers.	The term "package" ... means any commodity enclosed in a container or wrapped in any manner in advance of wholesale or retail sale, or determined in advance of wholesale or retail sale. Consumer package and package of consumer commodity: a package that is customarily produced or distributed for sale through retail sales agencies or instrumentalities for consumption or use by individuals for the purposes of personal care or in the performance of services ordinarily rendered in or about the household or in connection with personal possessions.	Prepackage - Combination of a product and the individual package in which it is prepacked.	Any commodity intended for sale that is enclosed in a container wrapped in any manner, and whose quantity has been determined.	A prepackage within the meaning of this Directive is the combination of a product and the individual package in which it is prepacked.	2000/13/EC (foodstuff...)	A prepackage is defined as the combination of a product and the packing material in which it is prepacked
packing material			Individual package ... (also called packaging or packaging material) - Everything meant to be left over after use of the product, except for items naturally in the product. Use includes consumption or subjecting to a treatment. Package (also called packaging or packaging material(s)) - Materials generally used to preserve, transport, inform about and serve as an aid while using the product it contains.				Packing material is everything that is meant to be left over after use, except for items naturally in the product. Use includes consumption or subjecting to a treatment

	US Weights and Measures Law	US Packaging and Labelling Regulation	OIML R87 draft 3 (net quantity of product...)	OIML R79 (labelling requirements...)	76/211/EEC (e-marking...)	2000/13/EC (foodstuff...)	This study
product	The term consumer commodity or commodity means any article, product, or commodity of any kind or class which is customarily produced or distributed for sale through retail sales agencies or instrumentalities for consumption by individuals, or use by individuals for purposes of personal care or in the performance of services ordinarily rendered within the household, and which usually is consumed or expended in the course of such consumption or use.						By defining the terms 'prepackage' and 'package material', the term 'product' is also defined. It is everything apart from the packing material in a prepackage.
prepacked product			Prepackaged product - A single item for presentation as such to the ultimate consumer, consisting of a product and the packaging into which it was put before being offered for sale, whether such packaging encloses the product completely or only partially, but in any case in such a way that the contents cannot be altered without opening or changing the packaging.		A product is prepackaged when it is placed in a package of predetermined value and package being present and the quantity of product contained in the package has a predetermined value and cannot be altered without the package either being opened or undergoing a perceptible modification.	pre-packaged foodstuff product shall mean any single item for presentation as such to the ultimate consumer, consisting of a foodstuff product and the packaging into which it was put before being offered for sale, whether such packaging encloses the foodstuff product completely or only partially, but in any case in such a way that the contents cannot be altered without opening or changing the packaging.	A product is prepackaged when it is placed in a package of whatever nature, whether such packaging encloses the product completely or only partially, without the package being present and the quantity of product contained in the package cannot be altered without the package either being opened or undergoing a perceptible modification.
content							The content of a prepackage is the quantity of product in a prepackage.
net content							The net content of a prepackage is the quantity of product in a prepackage.

	US Weights and Measures Law	US Packaging and Labelling Regulation	OIML R87 draft 3 (net quantity of product...)	OIML R79 (labelling requirements...)	76/211/EEC (e-marking...)	2000/13/EC (foodstuff...)	This study
net quantity	The term "weight" as used in connection with any commodity or service means net weight. When a commodity is sold by drained weight, the term means net drained weight.		The amount of the identified product in the prepackage exclusive of wrappers and any other material packed with such product. Note: The symbol Q _n is used to designate this term in this Recommendation.	The quantity of the identified product in the package exclusive of wrappers and any other material packed with such product. This term relates to specifications on a package and does not account for the actual contents in an individual package. The procedure for determining whether a producer fulfills regulatory requirements are provided in OIML R 87 Net content in package.		Where the indication of a certain type of quantity (e.g. nominal quantity, minimum quantity, average quantity) is required by community provisions or, where there are none, by national provisions, this quantity shall be regarded as the net quantity for the purposes of this Directive.	Net quantity is the quantity of product in a prepackage.
nominal quantity	A declaration of net quantity of the commodity in the package, exclusive of wrappers and any other material packed with such commodity... shall appear on the principal display panel of a consumer package...		Nominal Quantity (Q _n) - The amount of the identified product in a prepackage exclusive of the package and any other material packaged with the product. *The "nominal" net quantity is declared on the label by the packager.		The nominal quantity (nominal weight or volume) of the contents of a prepackage is the weight or volume indicated on the prepackage, i.e. the quantity of product which the prepackage is deemed to contain.		The nominal quantity of product in the prepackage is the quantity indicated on the prepackage.
actual content actual quantity			- while the "actual" net quantity is the quantity of product in the prepackage determined by measurement.		The actual contents of the prepackage are the quantity (weight or volume) of product which it in fact contains. and The quantity of product contained in a prepackage (or packing quantity), known as the "actual contents"...		The actual quantity of product in the prepackage is the quantity of product which the prepackage in fact contains.

Annex III Examples of the application of the definition of 'packing material'

prepackage	general description	problem	product	application of the definition	remarks
fruits in sweetened juice	solid goods in a liquid medium	sometimes the liquid is also consumed	solid goods	Packing material is everything that is meant to be left over after use, except for items naturally in the product. Use includes consumption or subjecting to a treatment	when the solid items and the liquid are considered to be 'product' both their nominal quantities must be on the label to inform the consumer
hair styling gel with air bubbles	viscous product with gas bubbles entrapped, for production or promotional reasons	some assume that the volume of the gel includes the air bubbles, because the bubbles are wanted by consumers (better selling product)	hair styling gel	bubbles (and other packing materials like tube or plastic jar)	also applies to paint and glue measuring problems have lead to a different application of the definition
ice glazed foodstuff	a frozen foodstuff is covered with a liquid that freezes to prevent the loss of water of the product	some assume that the glazing is part of the product as compensation for the loss of weight because of the freezing of the product	foodstuff	ice glaze (and other packing materials), even though the freezing of product usually causes the product to loose weight	also applicable on non-foods measuring problems has lead to a different application of the definition
lollypops	product with an item added to enable or promote the use of the product	some assume that the weight of a 'lollypop' also includes the stick, because without the stick a lollypop is a sweet	sweet	stick (and other packing materials like wrappings and a bag)	
ice cream on a stick	product with an item added to enable or promote the use of the product	some assume that the weight also includes the weight of the stick	ice cream	stick (and other packing materials like paper or plastic packing material)	it also applies for sticks with a question and answer on them
ice cream with a spoon	product with an item added to enable or promote the use of the product	some assume that the weight also includes the weight of the spoon	ice cream	spoon (and other packing materials like plastic storage bin)	
chocolate egg with a toy inside	product with an item added to enable or promote the use of the product	some assume that the weight also includes the weight of the toy	chocolate egg	toy (and other packing materials like kitchen foil)	
paint with a stringing stick	product with an item added to enable or promote the use of the product	some assume that the weight also includes the weight of the stringing stick	paint	stringing stick (and other packing materials like can)	
liquor with a pear in the bottle	liquid product with a solid ingredient added that contributes to taste or for promotional reasons	some assume that the volume also includes the volume of the pear because it is visible and it contributes to the taste of the liquor	liquor	pear (and other packing materials like glass bottle)	

prepackage	general description	problem	product	application of the definition	remarks
liquor with a caterpillar in the bottle	liquid product with a solid ingredient added that contributes to taste or for promotional reasons	some assume that the volume also includes the volume of the pear because it is visible and it contributes to the taste of the liquor	liquor	Packing material is everything that is meant to be left over after use, except for items naturally in the product. Use includes consumption or subjecting to a treatment	
liquor with raisins	liquid product with a solid ingredient added that contributes to taste	the raisons are eaten	liquor with raisins	caterpillar (and other packing materials like glass bottle)	
residue in wine	liquid with natural residue	some assume that the residue in wine is not part of the product because it is not consumed	wine and residue	other packing materials (usually a glass jar)	
residue in beer	liquid with added residue	yeast or barm is added during production to undergo secondary fermentation in the bottle	beer	other packing materials (like glass bottles or plastic cans), the residue is 'naturally in the product'	
bones in poultry	part of a natural product not meant to be used	some assume that the volume also includes the volume of the yeast or barm because it is essential for the quality of the product	beer	residue (and other packing materials like glass bottle or can)	
fish bones	part of a natural product not meant to be used	some assume that the weight of the poultry does not include the bones, because they are not consumed	poultry and bones	the bones are 'naturally in the product'	
pipts in fruits	part of a natural product not meant to be used	some assume that the weight of the fish does not include the fish bones, because they are not consumed	fish and bones	the fish bones are 'naturally in the product'	
wrappings of sweets	small individually wrapped products together packed	some assume that the weight of the fruit does not include the pips or skin, rind or peel, because they are not consumed	fruits and pips, skin, rind or peel	the pips, skin, rind or peel are 'naturally in the product'	
carbonated soft drinks and beer	liquids with carbon dioxide dissolved	some assume that the weight of the individual wrappings are part of the products, because the products would not be sellable if the individual wrappings were not there	sweets	individual wrappings (and other packing materials like plastic bag)	
coffee powder under vacuum	product under vacuum	the carbon dioxide is dissolved under pressure and exists in the brim space of the bottle or can	liquid with carbon dioxide	carbon dioxide in brim space (and other packing materials like glass bottle or tin can)	this suggests that (in general) the quantity of product should be determined under conditions a consumer uses the product (20 °C and 1 bar)
		some assume that the volume also includes the weight of the carbon dioxide in the brim space while weighing the prepackage (to determine the volume)	coffee	opened packing material	measuring problems has lead to a different application of the definition
		the product is kept fresh because it can not react with the oxygen in the air inside the packing material, the prepackage gets heavier when weighed with the packing material opened			
		this facilitates unfair competition with packers who pack coffee with a pressurized oxygen low gas			

prepackage	general description	problem	product	application of the definition	remarks
coffee powder under pressurized gas	product in pressurized gas	the product is kept fresh because it can not react with oxygen in the air inside the packing material	coffee	Packing material is everything that is meant to be left over after use, except for items naturally in the product. Use includes consumption or subjecting to a treatment opened packing material	
coffee	product is left over after use	this facilitates unfair competition with packers who pack coffee in a vacuum the drinkable coffee is obtained by pouring hot water on the coffee powder, wet coffee powder is 'left over after use'	coffee powder	pouring the hot water is considered 'subjecting to a treatment'	
paint	product is left over after use	the paint is put on, thus being 'left over after use'	paint	to paint is 'subjecting to a treatment'	the quantity of product of hygroscopic products or desiccating products, should be determined with a standard percentage of moist
mozzarella cheese	product dries out	the cheese desiccates (usually water) during storage where the liquid does not evaporate from the prepackage	cheese	the liquid is 'naturally' in the product and that therefore the liquid is part of the product, even though not used	measuring problems have lead to a different application of the definition in the case of desiccating of hygroscopic product 'the quantity of product is altered without the packing material being opened or undergoing a perceptible modification', for this reason sometimes such product can not be prepacked without proper packing material
meat	product dries out	the meat desiccates (usually water) during storage sometimes this is compensated for by adding more water before packing it	meat	the liquid is 'naturally' in the product and that therefore the liquid is part of the product, even though not used the added liquid however is not 'naturally' in the product'	
soap	product dries out	the soap desiccates (usually water) during storage where the liquid evaporates from the prepackage	soap	the liquid is 'naturally' in the product and that therefore the liquid is part of the product, even though not used	
cat litter	hygroscopic product	the product gains weight because of its hygroscopic characteristics	cat litter	other packing materials (like plastic bag)	
waxed cheese	eatable packing material	the wax is eatable	cheese	wax is 'meant to be left over after use' (and other packing materials)	measuring problems has lead to a different application of the definition
sausage (with eatable skin)	eatable packing material	the skin is eatable	sausage and skin	the skin is not 'meant to be left over after use'	