



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

Section 2: Qualitative and quantitative composition

SmPC training presentation

Note: for full information refer to the European Commission's [Guideline on summary of product characteristics \(SmPC\)](#)

SmPC Advisory Group

An agency of the European Union





Index

I. [General objectives](#)

II. Key principles

II.1 [Qualitative declaration](#)

II.2 [Quantitative declaration](#)

III. Additional information

III.1 [Biological medicinal products](#)

III.2 [Herbal medicinal products](#)

IV. [FAQs](#)



I. General objectives of section 2

This section should provide **full details of the qualitative and quantitative composition** in terms of the **active substance(s)** and **excipients**, knowledge of which are essential for proper administration of the medicinal product

Excipients listed in the Annex to the ["Guideline on the excipients in the label and package leaflet of medicinal product for human use"](#) should be stated here under a **separate subheading qualitatively, and, quantitatively**



II.1 Qualitative declaration

The active substance should be declared by its recommended INN
(accompanied by salt or hydrate if relevant)

or

European Pharmacopoeial name
(if it represents the established name in Europe or no INN exists)

In the absence of the above, the following should be used in order of preference:

- Usual common name
- Exact scientific designation
- Statement on how and from what the substances were prepared

References to the pharmacopoeial quality should not be included



II.2 Quantitative declaration

Quantity should be expressed per dosage unit, per unit volume or per unit of weight, using **internationally recognised standard term** (which could be complemented with another term more meaningful to healthcare professionals)

The quantity of the active substance should be related with the declaration of strength in section 1

SmPC examples
[1 Quantitative and qualitative declaration](#)
[2 Quantitative and qualitative declaration](#)

See SmPC Guideline for information on [specific presentations](#) described below:

Salts or Hydrates

e.g. 60mg toremifene (as citrate) or toremifene citrate equivalent to 60mg toremifene

Esters and Pro-drugs

Oral powder for solution or suspension

Parenterals excluding powders for reconstitution

Powders for reconstitution prior to parenteral administration

Concentrates

Transdermal patches

Multi-dose solid or semi-solid products

When active moiety is an active substance of an already approved medicinal product, the quantitative composition should also be stated in terms of quantity of active moiety (e.g. 75mg of fosphenytoin is equivalent to 50mg of phenytoin)

e.g. Each patch contains 750 micrograms of estradiol in a patch size of 10cm², releasing a nominal 25 micrograms of estradiol per 24 hours



Example 1-qualitative & quantitative declaration

Qualitative and quantitative composition in terms of the **active substance(s)** and **excipients (listed in excipient guideline under a separate subheading)**, *knowledge of which are essential for proper administration of the medicinal product*

Active substance XY 600 mg/300 mg film-coated tablets

Each film-coated tablet contains 600mg of X (as sulfate) and 300mg Y.

Excipient with known effect
Sunset yellow (E110) 1.7 mg per tablet

For a full list of excipients see section 6.1.



Example 2-qualitative & quantitative declaration

Qualitative and quantitative composition in terms of the **active substance(s)** and **excipients (listed in excipient guideline under a separate subheading)**, *knowledge of which are essential for proper administration of the medicinal product*

Active substance XYZ 600 mg/200 mg/245 mg film-coated tablets

Each film-coated tablet contains 600mg of X, 200mg of Y and 245 mg Z (as fumarate).

Excipient with known effect:

Each film-coated tablet contains 1 mmol (23mg) of sodium.

For a full list of excipients, see section 6.1.



III.1 Biological medicinal products

Expression of strength

In mass units, units of biological activity, or International Units as appropriate for the particular product, and reflecting *European Pharmacopoeia* usage where relevant

SmPC example
[3 biological product](#)

The **biological origin of active substance** should be defined briefly

[Example 4 wording from SmPC guideline](#)

Pegylated proteins: Refer to CHMP guideline on the description of composition of pegylated (conjugated) proteins in the SmPC

Immunoglobulins: In the case of normal immunoglobulins, the IgG subclass distribution should be stated in terms of percent of total IgG present. The upper limit of the IgA content should follow

Vaccines: In the case of vaccines, the content of active substance per dose unit (e.g. per 0.5 ml) should be stated. Adjuvants, if present, should be stated qualitatively and quantitatively. Additional specific guidance is available in CHMP guidelines on biotechnological medicinal products, e.g. the CHMP Guideline on the Pharmaceutical Aspects of the Product Information for Human Vaccines

Residues: Residues that are of special relevance (e.g. ovalbumin in egg derived vaccines) should be specified



Example 3-biological products

Expression of strength in mass units, units of biological activity, or International Units as appropriate for the particular product, and reflecting *European Pharmacopoeia* usage where relevant

The **biological origin of active substance** should be defined briefly

Active substance X suspension for injection

1 dose (0.5 ml) contains:

Hepatitis B surface antigen ^{1, 2, 3} 20 micrograms

¹adjuvanted by AS04C containing:

- 3-O-desacyl-4'- monophosphoryl lipid A (MPL) ² 50 micrograms

²adsorbed on aluminium phosphate (0.5 milligrams Al³⁺ in total)

³produced in yeast cells (*Saccharomyces cerevisiae*) by recombinant DNA technology.

For a full list of excipients, see section 6.1



Example 4-biological product

The **biological origin** of active substance should be **defined briefly**. Thus, the nature of any cellular system(s) used for production and, if relevant, the use of recombinant DNA technology should be specified

The entry should take the form:

"produced in XXX cells <by recombinant DNA technology>".

The following are examples of the application of this principle:

"produced in human diploid (MRC-5) cells",

"produced in Escherichia coli cells by recombinant DNA technology",

"produced in chick-embryo cells",

"produced from the plasma of human donors",

"produced from human urine",

"produced from <animal>blood",

"produced from porcine pancreatic tissue",

"produced from porcine intestinal mucosa".

SmPC guideline



III.2 Herbal medicinal products



The quantitative declaration should be in accordance with the existing quality guidelines on herbal medicinal products

[Click here for access to the **European Medicines Agency** webpage on herbal medicinal products](#) (which includes access to community monographs and guidance)



IV. FAQs

1. [When can the strength of a product be expressed in terms of its salt or hydrate?](#)
2. [Should an excipient not supplied with a medicinal product but necessary for dilution of the product be stated in section 2 with the respective warning in section 4?](#)
3. [Should the quantity of active substance include overages or overfills?](#)



1. When can the strength of a product be expressed in terms of its salt or hydrate?

- The SmPC guideline states that when the active substance is present in the form of a salt or hydrate, the quantitative composition should be expressed in terms of the mass (or biological activity in International (or other) units where appropriate) of the active moiety (base, acid or anhydrous material)
- However, there is the **exception of established active substances** in medicinal products, where the strength has traditionally been expressed in the form of a salt or hydrate. In these cases, the quantitative composition may be declared in terms of the salt or hydrate
- It is not acceptable for a new active substance to be expressed in terms of a salt or hydrate as this may lead to confusion and medication errors. This highlights the need early on in development for the strength/dosage of the medicinal product to be adequately expressed as per the SmPC guideline



2. Should an excipient not supplied with a medicinal product but necessary for dilution of the product be stated in section 2 with the respective warning in section 4?

- Information in section 2 and 6.1 relates to the composition of the medicinal product. Information on diluent that is not supplied as part of the product is therefore not required. Precautions and other information for use of the diluent e.g. 0.9% sodium chloride solution, are described in the SmPC of these products and are not expected to be repeated in the SmPC of products which have to be diluted in the diluent solution provided separately



3. Should the quantity of active substance include overages or overfills?

- Overages or overfills should not be included when stating the quantity of the active substance



Thank you for consulting this training presentation

SmPC Advisory Group

Please note the presentation includes examples that may have been modified to best illustrate the related principle