

ANSES-CIQUAL food composition table

2017

Excel format

1 The 2017 ANSES-CIQUAL food composition table

1.1 Context and general presentation

The French food composition database is run by CIQUAL in the Observatory of Food, unit of ANSES (the French agency for food, environmental and occupational health safety). Its mission is to collect, evaluate and make available nutritional composition of food consumed in France.

This file provides the composition of about 2800 foods for 61 components (for instance: carbohydrates, proteins, fat and fatty acids, vitamins and minerals, energy...).

1.2 Documentation

1.2.1 Characteristics of food composition data

All values are given as per 100 g edible part of the food, i.e. meat without bone, apple without core, etc.

Missing values

When the content of a food for a component is not known, a hyphen stands in place of the number. It is important for users to take into account these missing values and not to consider them as zero.

Trace

In some cases, a component is detected in the food matrix, but it cannot be quantified precisely. The analytical result can therefore be considered as "trace".

The term "trace" is also used, in the absence of analysis, when a compiler estimates that the content of a food is very low but cannot be considered as zero. The average content is then published as "trace".

1.2.2 Remarks about some components

Fat and fatty acids

In most foods, fat is mainly composed of triacylglycerol molecules, made from a glycerol core, esterified by 3 fatty acids.

Depending on the food group and the type of fat in the food, fatty acids represent 56 to 95% of total fat, the remaining fraction containing glycerol, molecules that cannot be saponified (sterol compounds, fat-soluble vitamins), and sometimes phosphate groups etc.

Carbohydrates

The regulatory definition of carbohydrates is "any carbohydrate which is metabolised by humans, and includes polyols" (Regulation EU N° 1169/2011 on the provision of food information to consumers).

Therefore, in the ANSES-CIQUAL food composition table, dietary fibers are not included in the carbohydrates.

Proteins and crude proteins

In the ANSES-CIQUAL food composition table, values for "Protein" are obtained by multiplying total nitrogen by a specific conversion factor (Jones factors) depending on the food group (e.g. 6.38 for dairy products, 5.95 for rice). This approach, despite its imperfections stated in Afssa report "Apport en protéines : consommation, qualité, besoins et recommandations" (2003), takes into account the variability of the nitrogen/protein ratio among food groups.

For nutritional labelling in Europe, "Protein, crudes, N x 6,25" values are calculated by multiplying total nitrogen by 6.25 for all foods (Regulation EU No 1169/2011 on the provision of food information to consumers).

Energy

There are several methods to calculate energy content of foods.

The values in the present table have been calculated for each foods using the following factors:

- 37 kJ/g (9 kcal/g) for fat
- 29 kJ/g (7 kcal/g) for alcohol
- 17 kJ/g (4 kcal/g) for protein
- 17 kJ/g (4 kcal/g) for carbohydrates (except for polyols)
- 13 kJ/g (3 kcal/g) for organic acids
- 10 kJ/g (2.4 kcal/g) for polyols
- 8 kJ/g (2 kcal/g) for dietary fibers.

"Energy, Regulation EU No 1169/2011" has been calculated according to the Regulation UE No 1169/2011, which uses "Protein, crude, N x 6,25", obtained by multiplying total nitrogen by 6.25 for all foods.

"Energy, N x Jones' factor, with fibres" has been calculated using values for "Protein", obtained by multiplying total nitrogen by a specific conversion factor (Jones factors) depending on the food group (e.g. 6.38 for dairy products).

Vitamin A

Several components show a vitamin A activity: retinol but also some carotenes and carotenoids.

Different formulas have been proposed to calculate vitamin A activity:

- Vitamin A activity (expressed in µg retinol equivalent) = retinol (in µg) + 1/6 beta-carotene (in µg) + 1/12 other carotenoids pro-vitamin A (in µg) (Requirements of vitamin A, thiamine, riboflavine and niacin, Report of a Joint FAO/WHO Expert Group, 1967)
- More recently, vitamin A activity (expressed in µg retinol equivalent) = retinol (in µg) + 1/12 beta-carotene (in µg) + 1/24 alpha-carotene and beta-cryptoxanthin (in µg) (Dietary Reference Intakes for Vitamin A, Institute of Medicine (US) Panel in Micronutrients, 2001).

However, in 2001, the FAO concluded that the old conversion factor for beta-carotene to determine vitamin A activity, estimated at 1/6, is apparently overestimated but that scientific data still lack to update it (Human Vitamin and Mineral Requirements, Report of a joint FAO/WHO expert consultation, 2001).

Thereby, the ANSES-CIQUAL food composition table provides separate values for retinol and beta-carotene (data for other carotenoids are not available).

2 Description of the file Table Ciqua1 2017_ENG_2017 11 17.xls

2.1 Content

The file **Table Ciqua1 2017_ENG_2017 11 17.xls** provides the composition of food included in the 2017 ANSES-CIQUAL table. It contains 2807 foods and 61 components. It consists of rows of foods and columns of components.

2.2 List of columns

Table 1 – List of columns in the file Table Ciqua1 2017_ENG_2017 11 17.xls

Label	Content	Format	Example
alim_grp_code	Code of the food group	alphanumeric	<i>01</i>
alim_ssgrp_code	Code of the food subgroup	alphanumeric	<i>0101</i>
alim_ssssgrp_code	Code of the food subsubgroup	alphanumeric	<i>000000</i>
alim_grp_nom_eng	Name of the food group	alphanumeric	<i>starters and dishes</i>
alim_ssgrp_nom_rng	Name of the food subgroup	alphanumeric	<i>mixed salads</i>
alim_ssssgrp_nom_rngr	Name of the food subsubgroup	alphanumeric	-
alim_code	Code of the food	number	<i>25600</i>
alim_nom_eng	Name of the food	alphanumeric	<i>Celeriac in remoulade sauce, prepacked</i>
61 columns related to the components	Content value	alphanumeric: it can be a number, an upper limit value (e.g.: "<10"), the mention "trace" or a hyphen if there is a missing value	<i>78 for the component Water (g/100g)</i>