

Maisons-Alfort, 21 October 2009

OPINION

of the French Food Safety Agency regarding the assessment of nutrition claims for fatty acids and complex carbohydrates

THE DIRECTOR GENERAL

Review of the request:

On 6 February 2009 the Directorate General for Competition, Consumer Affairs and Fraud Control (DGCCRF) requested that the French Food Safety Agency (AFSSA) assess nutrition claims for fatty acids and complex carbohydrates.

Context and purpose of the request

This request is part of the revision of the Annex to the European regulation (EC Regulation 1924/2006) of 20 December 2006 which lists authorised nutrition claims for foodstuffs and their conditions for use. The claims listed in the Annex concern energy value and content thresholds for fat, saturated fat, sugar, sodium/salt, fibre, protein, vitamins and minerals.

The European Commission proposes to include in this Annex claims for complex carbohydrates and claims related to fatty acids (FAs), particularly unsaturated fatty acids (UFAs), monounsaturated fatty acids (MUFAs), polyunsaturated fatty acids (PUFAs), and n-3 polyunsaturated fatty acids (n-3 PUFA) conditioned by dual criteria per 100 g and per 100 kcal.

The Confederation of the Food and Drink Industries of the EU (CIAA) proposes the same claims using alternately a weight or an energy density criterion.

The CIAA also proposes claims related to complex carbohydrates.

The proposals made by the Commission and by the CIAA are summarised in the following table:

Claim	First set of thresholds proposed by the Commission (February 2009)	Thresholds proposed by the CIAA	Second set of thresholds proposed by the Commission (July 2009)
<i>Source of (high in) omega 3 fatty acids</i>	<p>≥ 0.3 g (0.6 g) of alpha-linolenic acid per 100 g/mL <u>and</u> per 100 kcal</p> <p>OR</p> <p>≥ 30 mg (60 mg) of long chain omega 3 fatty acid per 100 g/mL <u>and</u> per 100 kcal</p>	<p>≥ 0.3 g (0.6 g) of alpha-linolenic acid per 100 g <u>or</u> per 100 mL <u>or</u> per 100 kcal</p> <p>OR</p> <p>≥ 30 mg (60 mg) of long chain omega 3 fatty acid per 100 g <u>or</u> per 100 mL <u>or</u> per 100 kcal</p>	<p>≥ 0.3 g (0.6 g) of alpha-linolenic acid per 100 g/mL <u>and</u> per 100 kcal</p> <p>OR</p> <p>≥ 40 mg (80 mg) of long chain omega 3 fatty acid per 100 g/mL <u>and</u> per 100 kcal</p>
<i>High in monounsaturated fatty acids</i>	At least 45% of FAs in the product are monounsaturated <u>and</u> monounsaturated FAs provide at least 10% of the total energy intake (TEI) of the product		At least 45% of FAs in the product are monounsaturated <u>and</u> monounsaturated FAs provide at least 20% of the TEI of the product
<i>High in polyunsaturated fatty acids</i>	At least 45% of FAs in the product are monounsaturated <u>and</u> polyunsaturated FAs provide at least 10% of the TEI of the product		At least 45% of FAs in the product are polyunsaturated <u>and</u> polyunsaturated FAs provide at least 20% of the TEI of the product
<i>High in unsaturated fatty acids</i>	At least 70% of FAs in the product are unsaturated <u>and</u> unsaturated FAs provide at least 10% of the TEI of the product		At least 70% of FAs in the product are unsaturated <u>and</u> unsaturated FAs provide at least 20% of the TEI of the product
<i>Source of (high in) starch / complex carbohydrates</i>	<p>≥ 15 g (30 g) of starch per 100 g</p> <p>OR</p> <p>≥ 8 g (16 g) of starch per 100 kcal</p>		

In its request, the DGCCRF asked for information on the following items:

- “the relevance of these claims to public health;
- a review of available data in order to better define the concept of ‘complex carbohydrates’;
- the results of eligibility for bearing these nutrition claims for the products referenced in the CIQUAL (French Data Centre on Food Quality) database, according to the different proposals made by the Commission and the CIAA;
- an analysis of these results considering the recommendations made by experts.”

On 24 July 2009, AFSSA received additional information from the DGCCRF (a second set of values proposed by the Commission – see the table above), regarding the progress of discussions taking place at the Community level:

- the prescribed thresholds for claims concerning n-3 fatty acids have been increased to take into account the EFSA Opinion of 30 June 2009 concerning reference values for n-3 and n-6 PUFA;
- for claims related to unsaturated fatty acids, the criterion for the percentage of total energy intake for the family of fatty acids concerned was increased to 20%.

Based on these factors, AFSSA has been asked to:

- “identify the foods eligible to bear the claim ‘source of omega 3 fatty acids’ with the criterion OR, and not eligible to bear this claim with the criterion AND; and to discuss these results regarding public health issues
- identify foods that would be likely to qualify for claims for unsaturated fatty acids since they contain significant amounts of omega 6 fatty acids;
- discuss the relevance of introducing an ‘omega 6/omega 3’ criterion conditioning the use of claims for unsaturated and polyunsaturated fatty acids and identify the products that, with such a criterion, are eligible to bear these claims.”

Given these factors, this Opinion from AFSSA concerns:

- with regard to carbohydrates:
 - o the definition of the term ‘complex carbohydrates’ with respect to nutrition claims;
 - o the relevance to public health of the nutrition claims proposed;
 - o the eligibility of food listed in the French Food Data Centre on Food Quality (CIQUAL) database for bearing claims according to the various proposals made by the Commission and by the CIAA;
- with regard to fatty acids:
 - o the relevance to public health of the nutrition claims proposed;
 - o the relevance to public health of the introduction of the criterion ‘n-6 PUFA/n-3 PUFA’ for validating claims related to MUFA and PUFA;
 - o the eligibility of the foods in the CIQUAL database for bearing claims according to the various proposals made by the Commission and by the CIAA;
 - o the impact on public health of the use of the dual criteria ‘by 100 g AND by 100 kcal’ instead of the single criterion ‘by 100 g OR by 100 kcal’, regarding the claims ‘source of (high in) omega 3 fatty acids’.

This Opinion is partially based on previous assessments by the Agency concerning claims with respect to content of fatty acids and carbohydrates. The reports involved are “Acides gras de la famille oméga 3 et système cardiovasculaire : intérêt nutritionnel et allégations” (AFSSA, 2003) [Omega 3 fatty acids and the cardiovascular system: nutritional interest and claims] and “Glucides et santé : état des lieux, évaluations et recommandations” (AFSSA, 2004) [Carbohydrates and health: review, assessment and recommendations], as well as an Opinion concerning an assessment of generic claims in the context of creating a registry as provided for in the European regulation on nutrition and health (AFSSA, 2008).

In its 2003 report on n-3 PUFA, AFSSA had introduced the concept of overall composition (similar to a nutrient profile) for lipids as a condition of eligibility for bearing health claims about n-3 PUFA, including in particular criteria concerning the fatty acids profile of a product. This proposal did not concern nutrition claims. The European Regulation (EC Regulation 1924/2006) applies the concept of nutrient profile to all foods, both for nutrition and health claims, but separates assessment of the claim from that of the nutrient profile. AFSSA notes that, consequently, and on condition that the nutrient profiles be defined, the proposed conditions for qualification relate only to the nutrient for

which the claim is made. The results discussed in this Opinion concerning the qualification of products for nutrition claims under the proposed conditions show that the total composition is relevant and should thus be taken into account.

After consulting the CES [Scientific Panel of Experts] on 'Human nutrition', which met on 28 May, 25 June, 9 July and 24 September 2009, AFSSA has reached the following conclusions:

Discussion

1. Claims for complex carbohydrates

1.1. Definition of complex carbohydrates

The CIAA proposes considering the terms 'starch' and 'complex carbohydrates' as being synonymous for the purpose of claims.

The arguments raised by the CIAA to justify the use of the term 'complex carbohydrates' as an alternative to 'starch' are as follows:

- public health recommendations use the terms 'starch' and 'complex carbohydrates' in the same way;
- the term 'starch' does not connote food exclusively, since it is also used for non-food purposes, such as for 'starching shirts'.

The CIAA pointed out that AFSSA recommends using the term 'complex carbohydrates' in its report (AFSSA, 2004), and that the National Health and French Nutrition Programme (PNNS) encourages increasing the consumption of complex carbohydrates. The CIAA therefore deems it appropriate to inform consumers of the complex carbohydrates content of foods in order to help them relate the dietary recommendations to the foods that would supply them.

In the AFSSA report, complex carbohydrates are defined as carbohydrates with a degree of polymerisation (DP) greater than two. This term has a chemical meaning, and covers starch and all other digestible and non-digestible polysaccharides and oligosaccharides.

The term starch also has a precise chemical meaning, referring to a linear (amylose) and branched (amylopectin) chain of glucose and maltose. Starch accounts for the bulk of complex carbohydrate intake. However, some food sources of complex carbohydrates contain little or no starch but rather oligosaccharides with a DP ranging between three and nine.

In addition, the scientific community is in favour of a definition of complex carbohydrates that includes both digestible starches and polysaccharides, for labelling purposes. A survey conducted in 29 countries in Europe, North and South America, and Asia shows that among the 77% of scientists who support the use of the term 'complex carbohydrates' for labelling purposes, only 3% limit 'complex carbohydrates' to digestible starch (Cho *et al.*, 1999).

Thus, the complex carbohydrates category, defined as carbohydrates with a DP greater than two, includes compounds of various types, such as:

- maltotriose and maltodextrins that are as hyperglycaemic as pure glucose;
- pregelatinised starch, which is highly hyperglycaemic;
- slowly-digested starch from pasta products or legumes, or very slowly-digested starch from raw maize;
- cellulose (insoluble and moderately fermentable) from wheat bran or the seed coats of legumes;
- guar gum, carrageenan, alginates and pectins, carbohydrate polymers used as thickeners and/or gelling agents;
- highly fermentable fructooligosaccharides, and the prebiotics or the fermentable and potentially prebiotic alpha-galactosides.

AFSSA therefore considers that the terms 'complex carbohydrates' and 'starch' cannot be used alternately and equally, and that starch belongs to the category of complex carbohydrates but does not reflect the diversity of chemical types, and especially physiological effects, of the compounds that make up this family.

1.2. Public health relevance of the use of nutrition claims for complex carbohydrates

There is a strong international consensus for recommending that total carbohydrates account for between 45 and 75% of total energy intake (WHO, 2003). The values used for the French population are 50-55% (Martin et al., 2001). The nutritional recommendations for carbohydrates aim to promote overall carbohydrate consumption, by encouraging the consumption of fibres and reducing sugar intake. These recommendations correspond to the objectives of the French National Nutrition and Health Programme (PNNS), which conveys them to the consumer in the form of the following dietary guidelines:

- increase consumption of foods that are sources of starch, especially grains (and particularly whole grain foods that offer the added benefit of providing appreciable amounts of fibre), potatoes, legumes, etc.; they should be included at each meal;
- limit the consumption of sugar and sugar-laden foods (carbonated beverages, candy, chocolate, pastry, sweet desserts, etc.);
- increase the consumption of fruits and vegetables, in any form (raw, cooked, plain, prepared, fresh, frozen or canned) to achieve an intake level of five fruits and vegetables per day.

Furthermore, a central element of the recommendations related to the consumption of carbohydrates is the dietary context which alters their metabolic fate. This favours the consumption of carbohydrates as part of a complete meal. Indeed, other dietary factors (macronutrients, other foods, food matrices, etc.) delay the absorption of carbohydrates and limit postprandial hyperglycaemic and hyperlipaemic peaks.

From a nutrition standpoint, carbohydrates have differences that are not related to their chemical structure. They can be divided into:

- glycaemic carbohydrates that supply glucose to body cells, these being mono- and disaccharides, starch and maltooligosaccharides. These compounds exhibit metabolic characteristics and therefore nutritional similarities. They can be identified by their glycaemic index (GI), which is influenced by intrinsic factors, such as the structure of the starch and its more or less resistant nature, or extrinsic factors, such as dietary context;
- non-digestible fibre-effect carbohydrates, which include non-starch polysaccharides (cellulose, haemicellulose, pectin, etc.) and a portion of starch polysaccharides (resistant starch, inulin, amylose, etc.).

Some complex carbohydrates, particularly the starch in white bread, have the same effect on blood sugar as pure glucose (Brand Miller, 1997). Moreover, all sugars do not have the same effect on glycaemia: glucose has a high GI (100), fructose has a low GI (23 ± 1) and sucrose has an intermediate GI (65 ± 4).

Lastly, this term is familiar to the consumer (through communication about nutrition) who views it as being opposed to sugars. Since sugars are considered to be sweeteners, the term “complex carbohydrates” is often associated with the concept of unsweet carbohydrates, which is accurate in most cases.

Thus, AFSSA considers that the use of nutrition claims for complex carbohydrates is not relevant. This use would perpetuate the confusion, which is predominant among average consumers (EC Regulation 1924/2006), who perceive two groups: on the one hand, sugars, quickly digested and insulinaemic in nature contrasted with complex carbohydrates, slowly digested with a low glycaemic index, on the other hand. In fact, some foods containing primarily complex carbohydrates are more hyperglycaemic (and hyperinsulinaemic) than sugary foods. This is the case in foods containing gelatinised starch that is as hyperglycaemic as pure glucose and more hyperglycaemic than sucrose and, even more so, than fructose. Promoting this type of carbohydrate by the nutrition claim 'complex carbohydrates' would be misleading to consumers, especially since it comes with a function claim.

1.3. Eligibility of foods in the CIQUAL 2008 Table for bearing nutrition claims for complex carbohydrates

The French food composition Table CIQUAL 2008 contains the nutritional composition of 1351 foods consumed by subjects interviewed for the second French National Individual Survey on Food Consumption (INCA 2).

The complex carbohydrate content of these foods was calculated using the following formula:
 complex carbohydrates (g/100 g) = carbohydrates (g/100 g) + fibres (g/100 g) – polyols (g/100 g) – sugars (g/100 g)

in which:

- carbohydrates refers to carbohydrates which can be metabolised by humans, including the polyols (defined in Decree 93-1130 for nutrition labelling);
- fibres as defined in AFSSA's report on fibres (AFSSA, 2002);
- polyols refers to the compound resulting from the fermenting of mono- or oligosaccharides either by fermentation or high pressure catalytic hydrogenation processing.

The results of the eligibility of the foods in the CIQUAL 2008 Table (Annex 1, Table 1) show in particular that:

- most breads, rusks, potatoes and starchy tubers, pasta, rice and semolina are 'high in complex carbohydrates';
- 23% of fruits are 'sources of complex carbohydrates', and 30% of vegetables are 'high in complex carbohydrates';
- most pastries, biscuits, sandwiches and snacks are 'high in complex carbohydrates';
- among non-grain foods, fish products, confectionery products, sauces and beverages are 'sources of complex carbohydrates'.

Moreover, among foods eligible for the claims proposed by the CIAA, some are vectors of significant amounts of added sugars and/or lipids.

The results of the eligibility of foods in the CIQUAL 2008 Table for bearing the claim 'high in/source of complex carbohydrates' show that the thresholds proposed by the CIAA do not allow us to distinguish between foods which are different from the standpoint of nutrition, which gives rise to highly disparate recommendations about frequency of consumption.

AFSSA states that, in its Opinion on the evaluation of the generic claim that carbohydrates 'provide energy', it considered that it could be used 'only if the food did not contain added sugars' (AFSSA 2008).

1.4. General conclusion on claims related to complex carbohydrates

AFSSA considers that the use of the term 'complex carbohydrates' in the context of nutrition claims is not relevant to public health. Indeed, its use in combination with its chemical definition would be a source of additional confusion for the consumer, since the term covers a highly heterogeneous category of carbohydrate compounds regarding digestive, metabolic and physiological effects. This use would also strengthen the false association between 'complex carbohydrates', 'slow carbohydrates' and low glycaemic index on the one hand, and 'sugars', 'fast carbohydrates', and high glycaemic index on the other. Because of this potential confusion, a claim for 'complex carbohydrates' borne by hyperglycaemic carbohydrate food vectors is therefore extremely misleading for the average consumer. Lastly, the results of the eligibility of foods in the CIQUAL 2008 Table for the claim 'high in /source of complex carbohydrates' show that the thresholds proposed by the CIAA do not allow us to distinguish between foods from the standpoint of nutrition, and for which the recommendations in terms of frequency of consumption are different.

2. Claims for fatty acids

2.1. Public health relevance of nutrition claims proposed

- 2.1.1. Public health relevance of use of the nutrition claim 'High in MUFA': "At least 45% of FAs in the product are monounsaturated and monounsaturated FAs provide at least 20% of the TEI of the product"

Like saturated fatty acids, and unlike essential (i.e. which are not synthesised by the body) or conditionally essential PUFAs (which are insufficiently synthesised by the body), MUFAs come partly from endogenous synthesis and partly from food. Aside from their contribution of energy,

MUFAs do not play a specific biological role. Their value is demonstrated when they are substituted for saturated fatty acids, some of which may increase cholesterol in the blood when consumed in excess (AFSSA 2009).

Therefore, AFSSA considers that, in light of currently available data, a nutrition claim related to MUFAs is not relevant to public health.

2.1.2. Public health relevance of the use of the nutrition claims:

- 'High in UFA': At least 70% of FAs in the product are unsaturated and unsaturated FAs provide at least 20% of the TEI of the product
- and 'High in PUFA': At least 45% of FAs in the product are polyunsaturated and polyunsaturated FAs provide at least 20% of the TEI of the product

UFAs are a heterogeneous fatty acid group. They include MUFAs and PUFAs, which themselves include many fatty acids with different physiological roles. PUFAs in particular include essential precursor fatty acids (alpha-linolenic acid for the n-3 series (ALA) and linoleic acid for the n-6 series (LA)) and conditionally essential derived fatty acids (eicosapentaenoic acid (EPA) and docosahexaenoic (DHA)) with different, even opposite physiological effects and properties. In fact, some fatty acids from these families are precursors of signalling molecules, the eicosanoids, which modulate many cell functions, and can exert, depending on the family in question (n-3 or n-6), at times complementary and other times opposite effects (AFSSA, 2009). In terms of overall diet, the balance between PUFAs of the n-6 and n-3 families is therefore vital, which is not accounted for in the proposed claims.

In an Opinion concerning an assessment of generic claims regarding essential fatty acids, AFSSA has already concluded that a claim for grouping polyunsaturated fatty acids is not admissible, because of a "dangerous simplification of the scientific reality" (AFSSA, 2008).

Furthermore, average intake levels of linoleic acid in the French population estimated in the TRANSFAIR (Hulshof, 1999), SU.VI.MAX (Astorg 2004) and AQUITAINE (Combe and Boué 2001) studies are similar to (3.9% and 4.2% of energy intake respectively) (Combe and Boué 2001, Astorg 2004), or even higher (4.4% of energy intake) (Hulshof 1999) than ANCs (*Apports nutritionnels conseillés* - recommended nutritional intakes) (4% of energy intake) (AFSSA, 2009), while the average intake levels of alpha-linolenic acid estimated in the same studies are substantially below the recommendations (0.4% of energy intake as against 1%). However, respecting the linoleic acid/alpha-linolenic acid ratio is especially important in cases of imbalances due to a deficit in alpha-linolenic acid intake and/or due to an excess of linoleic acid intake (AFSSA, 2009). In the current context of a deficit in alpha-linolenic acid intake in the population, it is inappropriate to advocate the consumption of linoleic acid through nutrition claims.

Thus, AFSSA considers that the claims for UFAs and PUFAs are not relevant to public health in light of the: 1) lack of nutritional or physiological significance of these categories of fatty acids; 2) heterogeneity of the effects of fatty acids considered in each category; 3) significance of the deficiency in alpha-linolenic acid intake as compared with intakes of linoleic acid, which is an essential issue regarding PUFAs.

2.1.3. Public health relevance of the use of n-6 PUFA/n-3 PUFA to allow eligibility for bearing nutrition claims for UFA and PUFA

Due to competition between the two n-3 and n-6 PUFA families, in 2001 it was suggested that the ratio between the two precursors, linoleic acid and alpha-linolenic acid respectively, is close to five, when diet is considered in its totality (Legrand et al. 2001).

While it is essential to ensure increasing levels of n-3 PUFA intake compared with those of n-6 PUFA, since current n-3 PUFA levels are well below the recommended nutritional intakes, the balance between the precursors of these two families must be considered in terms of the overall diet and not of each food taken separately.

Thus, AFSSA considers that the use of the n-6 PUFA/n-3 PUFA ratio is not relevant to public health for promoting a food taken separately, apart from dietary context as a whole.

However, it may be useful to take this ratio into account for the formulation/reformulation of composite foods, so that they can be eligible for bearing nutrition claims related to fatty acids.

In addition, AFSSA stresses the inconsistency of the proposed use of this n-6 PUFA/n-3 PUFA ratio for nutrition claims for UFAs and PUFAs and not for MUFAs or for n-3 PUFAs, since the latter make up a subgroup of the family of UFAs, and even PUFAs.

2.1.4. Public health relevance of the use of the nutrition claims related to n-3 PUFAs:

- 'Source of n-3 PUFA': at least 0.3 g of alpha-linolenic acid (ALA) per 100 g AND per 100 kcal or at least 40 mg eicosapentaenoic acid (EPA) + docosahexaenoic acid (DHA) per 100 g AND per 100 kcal;
- 'High in-3 PUFA': at least 0.6 g of ALA per 100 g AND per 100 kcal or at least 80 mg of EPA+DHA per 100 g AND per 100 kcal.

The n-3 PUFAs are essential and conditionally essential fatty acids. ALA is an essential fatty acid and its derivatives, eicosapentaenoic acids (EPA) and docosahexaenoic acid (DHA) have long been considered to be conditionally essential (AFSSA 2009). To the extent that the rates of conversion of ALA to DHA have been shown to be very limited (<5 %) (Brenna 2002), DHA is now considered to be an essential PUFA (AFSSA, 2009). The requirements for these fatty acids and their physiological effects have been established (AFSSA, 2009). In particular, an adequate intake of DHA during childhood is particularly critical to ensure optimal cognitive and neurosensory development. The beneficial effect of fish oil EPA+DHA for cardiovascular preventive care is clearly recognised. The link between the consumption of EPA and DHA and some cancers as well as psychiatric pathologies (especially depression) is also mentioned in the literature (AFSSA, 2009).

Based on these arguments, AFSSA considers that the consumption of ALA and long chain n-3 PUFA, EPA and DHA, should be encouraged. Therefore, claims related to n-3 PUFAs are relevant to public health. However, given the differential effects of these fatty acids on human health, AFSSA considers that these nutrition claims must clearly indicate whether they concern the precursor or its derivatives.

2.2. Eligibility of foods for bearing the proposed nutrition claims (Annex 2)

Based on food composition data from different tables, studies have been conducted on eligibility for bearing the proposed nutrition claims. Data from the CIQUAL database and from the SU.VI.MAX table were used. For practical reasons, the SU.VI.MAX table was used to account for the additional criteria on n-6 PUFA/n-3 PUFA since it is currently the only one to incorporate values for this criterion in a systematic way.

The n-6 PUFA/n-3 PUFA total ratios (and not the LA/ALA ratio) were chosen in order to take into account both animal and plant products.

This work does not question the conclusions mentioned above about the lack of relevance to public health of the nutrition claims related to UFAs, MUFAs, and PUFAs proposed by the European Commission. It aims to provide various Authorities (DGCCRF, DGS, DGAL), with objective input for stimulating discussions in Europe, in the event that the Commission intends to continue authorising these claims.

- #### 2.2.1. Eligibility of foods for bearing nutrition claims for MUFAs: 'High in MUFA': At least 45% of FAs in the product are monounsaturated and monounsaturated FAs provide at least 20% of the TEI of the product

AFSSA has not specifically evaluated the relevance of thresholds for this claim and the thresholds have been applied as is for food eligibility simulations.

The sole use of MUFA content would lead to a situation in which virtually all foods would be considered as 'high in MUFA'. Thus, many foods of heterogeneous nutritional quality, among them

crisps, bacon, *rillettes* (potted minced pork) and olive oil could be promoted using the same claim. As mentioned above, these results thus emphasise the full importance of considering the overall composition of the food as part of the validation process for claims that can be achieved by applying nutrient profiles.

The introduction of n-6 PUFA/n-3 PUFA criteria enables a significant reduction in the number of foods qualifying for the claim 'High in MUFA'. Only 18% of the foods in the SU.VI.MAX table would ultimately be eligible for claims.

These few data show that it is not desirable to allow foods to qualify for the nutrition claim 'High in MUFA' solely on the basis of their levels of this fatty acid. The additional use of the n-6 PUFA/n-3 PUFA criteria would allow for a more significant distinction between foods, thus allowing more relevant use of this claim.

However, further in-depth work is needed and probably should include tests on other criteria, whether or not they are combined, that ultimately dovetail with the process of developing nutrient profiles.

2.2.2. Eligibility of foods for bearing nutrition claims related to UFAs and PUFAs:

- 'High in UFA': At least 70% of FAs in the product are unsaturated and unsaturated FAs provide at least 20% of the TEI of the product
- 'High in UFA': At least 45% of FAs in the product are polyunsaturated and polyunsaturated FAs provide at least 20% of the TEI of the product

AFSSA has not specifically assessed the relevance of thresholds for this claim and the thresholds have been applied as is for food eligibility simulations.

Analysis of foods that can bear the claim for PUFAs emphasises the fact that foods of low energy density, such as coffee, green vegetables or aromatic herbs, could be eligible for 'high in PUFA' claims even though their contributions to ANCs (Recommended nutritional intakes) are low. . Moreover, foods of very different composition may be promoted in the same way: waffles with filling, nuts, oil, aquatic or land animal products.

As stated above, these claims do not allow for a distinction between foods that are high in n-6 PUFA (such as sunflower oil) and foods that are high in n-3 PUFA (such as fish).

The same observation may be made for the claim related to UFAs, the criteria for which are even less discriminating. In fact, virtually all oils could be promoted using the claim 'High in UFA', even though their compositions are completely different.

These examples confirm the lack of relevance to public health of the claims for UFAs and PUFAs because of the non-specificity of fatty acids that they promote overall. As mentioned above, these results thus show the considerable importance of taking the total composition of the food into account as part of the evaluation process of claims by applying nutrient profiles.

The further introduction of the n-6 PUFA/n-3 PUFA criterion, in addition to the PUFA content, can exclude foods that are dense in energy and of low nutritional density, and that have an unsatisfactory PUFA profile, such as crisps, *foie gras*, peanuts, *taramasalata* or sunflower seeds. This approach also excludes foods with a nutritional interest such as nuts, which nonetheless could be promoted by the nutrition claim 'High in n-3 PUFA'. Only 20% (3 out of 15) and 13% (16 out of 121) of foods tested would be eligible for the claims 'High in PUFA' or 'High in UFA', respectively.

These few data show that the eligibility to the nutrition claims 'High in PUFA' and 'High in UFA' cannot solely be based on the levels of these fatty acids. Indeed, the profile of the foods containing these fatty acids, more than the total amount of UFA or PUFA, is of nutritional and public health interest. The additional use of the n-6 PUFA/n-3 PUFA criteria would considerably increase the ability to distinguish between foods, in comparison to an approach based on applying these single criteria alone.

However, further in-depth work is needed and probably should include tests based on other criteria, whether combined or not, that ultimately dovetail with the process of developing nutrient profiles.

2.2.3. Eligibility of foods for bearing nutrition claims related to n-3 PUFA:

- 'Source of n-3 PUFA': at least 0.3 g of alpha-linolenic acid (ALA) per 100 g AND per 100 kcal or at least 40 mg of eicosapentaenoic acid (EPA) + docosahexaenoic acid (DHA) per 100 g AND per 100 kcal;
- 'High in n-3 PUFA': at least 0.6 g of ALA per 100 g AND per 100 kcal or at least 80 mg of EPA+DHA per 100 g AND per 100 kcal.

In its 2003 report on claims for n-3 PUFA, AFSSA concluded that:

1. "a food is a source of omega 3 fatty acids if it contains more than 15% of the ANC for an adult male, of the fatty acids concerned per 100 g or 100 mL or 100 kcal;
2. a food is high in omega 3 fatty acids if it contains more than 30% of the ANC for an adult male, of the fatty acids concerned per 100 g or 100 mL or 100 kcal;

[...] These thresholds also apply to DHA as well as to alpha-linolenic acid.

If the option of a mixed enrichment (alpha-linolenic acid and long chain omega 3 fatty acid) is chosen, the condition regarding the percentage of ANC must be checked for alpha-linolenic acid or for DHA” (AFSSA, 2003).

In 2003, AFSSA had not proposed a nutrition claim for total long-chain n-3 PUFAs, but claims for DHA alone. Indeed, in 2001, an ANC had been defined for DHA, but not for EPA.

EFSA recently proposed reference values for labelling of fatty acids (Opinion of 30 June 2009). The values chosen were 2 g for ALA and 250 mg for EPA+DHA.

At the same time, for the French population AFSSA proposes similar values for the ANC of ALA but twice as high for EPA+DHA, or 500 mg (AFSSA 2009).

As part of the eligibility study, the thresholds established by the Commission and derived from the reference values proposed by EFSA were tested in the same way as those calculated by AFSSA based on recommendations from the 2003 report (AFSSA 2003) and the new ANC's (AFSSA 2009). For both sets of thresholds, the logical connectives 'OR' and 'AND' were considered in terms of references '/100 g' and '/100 kcal'.

The reference '/100 g' of product identifies foods that sometimes have low levels of n-3 PUFA but which, because of their high total FA content prove to be sources of n-3 PUFA. This is true for sauces and *pain au chocolat* that would be 'sources of n-3 PUFA' and of chocolate biscuits, which would be 'high in n-3 PUFA'.

The reference '/100 kcal' makes it possible, in contrast, to consider plants products with low energy density as being 'sources of n-3 PUFA': which might include, lettuce, cabbage, broccoli, and watercress.

Thus, the logical connective 'OR' makes it possible to include all foods supplying n-3 PUFA but also to include foods that satisfy the '/100 g' threshold because of their high energy density (particularly, high in total FAs such as cake/chocolate biscuits, *foie gras*, or chips), which runs counter to nutritional recommendations. Furthermore, all oils, irrespective of their composition, could bear claims, although some (for example, grapeseed oil) contain little n-3 PUFA (0.3 g/100 g).

It therefore appears more appropriate to favour the logical connective 'AND', which excludes from eligibility for nutrition claims foods with high energy density, which are in reality low providers of n-3 PUFAs when expressed as amounts compared to the energy they contribute.

The main foods that are high in n-3 PUFA and normally recommended, namely oily fish, rapeseed oil and walnuts, continue to be included.

The logical connective 'AND' results in the exclusion of plant sources (vegetables) of n-3 PUFA from eligibility for nutrition claims, but this finding does not have any impact on meeting the requirements for this FA: thus nearly 2 kg of watercress or of cabbage are needed to satisfy the ANC of ALA (2 g/day) while two tablespoons (20 g) of rapeseed oil or 30 g of walnuts are enough. In addition, it is reasonable to expect that these intakes replace the consumption of fats and oils of inferior nutritional quality (corn oil) but of similar energy density. More generally, the use of the reference '/100 g AND /100 kcal' excludes about 40% of foods from eligibility for nutrition claims. This value is no more than 13% when considering only the claim 'High in n-3 PUFA'.

Concerning the choice between the ANC (AFSSA 2009) and the labelling reference values proposed in Europe for n-3 PUFA, it does not seem to result in major differences for eligibility. However, the choice of the ANC as the reference value excludes eggs and offal from eligibility for these claims, although they are vectors of DHA and EPA+DHA, respectively.

Using the reference '/100 g AND /100 kcal' for eligibility for bearing nutrition claims for n-3 PUFA thus appears more suitable than the reference '/100 g OR /100 kcal'.

However, the use of French instead of European daily reference intakes may exclude some worthwhile food vectors of DHA or of EPA+DHA from eligibility.

2.3. General conclusion on claims for fatty acids

AFSSA considers that:

- a nutrition claim related to MUFAs is not relevant to public health since, apart from their energy contribution, these fatty acids do not play a specific physiological role;

- nutrition claims related to UFAs and PUFAs are not relevant to public health in the absence of nutritional or physiological significance of these fatty acid categories and due to the heterogeneity of the effects of fatty acids considered in each category;
- nutrition claims related to n-3 PUFA are relevant to public health; and their wording should clearly indicate whether they refer to a precursor or its derivatives, taking into account the differential effects of these fatty acids on human health;
- if use of the n-6 PUFA/n-3 PUFA ratio is not relevant to public health for promoting a food considered outside of the context of overall diet, its value may be considered for the formulation/reformulation of composite foods.

The results of food eligibility simulations for nutrition claims related to UFAs, MUFAs, and PUFAs should be considered as useful input for stimulating European discussions, in the event that the Commission intends to continue authorising these claims.

These results show that MUFA, UFA, or PUFA content alone are insufficient criteria for distinguishing among foods to qualify them for nutrition claims. Moreover, while the additional use of the n-6 PUFA/n-3 PUFA criteria appears to allow for finer discrimination among foods, further in-depth study is still needed and probably should include tests based on other criteria, whether combined or not, that ultimately dovetail with the process of developing nutritional profiles.

Thus, AFSSA considers that, in terms of the current public health situation, taking nutrient profiles into account is a key element for validating nutrition claims for fatty acids. This issue needs to be considered irrespective of the nutrient in question.

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Key words: complex carbohydrates, fatty acids, eligibility of foods, public health relevance

Annexes

Annex 1: Eligibility of foods for bearing claims about complex carbohydrates

Table 1: Eligibility for bearing claims for starch and complex carbohydrates by food group according to the nomenclature of the INCA2 study, expressed in percentage of foods per group.

<u>Food group:</u>	Percentage of foods SOURCE		Percentage of foods HIGH		Total number of foods per group, with or without claim
	of starch	of complex carbohydrates	in starch	in complex carbohydrates	
Bread, rusks	100%	100%	88%	92%	24
Breakfast cereals	95%	95%	91%	95%	22
Pasta	100%	100%	83%	100%	6
Rice and semolina	100%	100%	100%	100%	5
Other cereals	100%	100%	67%	100%	3
Rolls	100%	100%	64%	73%	11
Biscuits	94%	97%	50%	59%	34
Pastry	54%	65%	12%	15%	26
Milk	0%	0%	0%	0%	22
Ultra fresh dairy products	0%	0%	0%	0%	58
Cheese	3%	3%	0%	0%	70
Eggs and egg derivatives	0%	0%	0%	0%	11
Butter	0%	0%	0%	0%	6
Oils	0%	0%	0%	0%	10
Margarine	0%	0%	0%	0%	6
Other fats	0%	0%	0%	0%	5
Meats	0%	0%	0%	0%	34
Poultry and game	0%	0%	0%	0%	20
Offal	0%	0%	0%	0%	16
Delicatessen meats	0%	2%	0%	0%	57
Fish	1%	3%	0%	0%	75
Shellfish and molluscs	11%	11%	0%	0%	18
Vegetables (other than potatoes)	12%	76%	0%	29%	95
Potatoes and starchy tubers	100%	100%	42%	58%	12
Pulses	90%	90%	10%	90%	10
Fruits	2%	23%	0%	0%	43
Dried fruits, nuts and oilseeds	11%	22%	7%	11%	27
Frozen desserts	0%	0%	0%	0%	6
Chocolate	0%	25%	0%	0%	12
Sugars and sugar derivatives	8%	13%	8%	8%	24
Waters	0%	0%	0%	0%	86
Soft drinks	0%	4%	0%	2%	53
Alcoholic beverages	0%	6%	0%	0%	35
Coffee	0%	14%	0%	14%	7
Hot beverages	10%	30%	10%	30%	10
Pizzas, quiches and savoury pastries	100%	100%	0%	7%	15
Sandwiches, snacks	93%	97%	37%	53%	30
Soups	53%	63%	0%	21%	19
Mixed dishes	22%	30%	1%	4%	73
Entrées	43%	50%	0%	0%	14

Food group:	Percentage of foods SOURCE		Percentage of foods HIGH		Total number of foods per group, with or without claim
	of starch	of complex carbohydrates	in starch	in complex carbohydrates	
<i>Entremets</i>	8%	17%	0%	0%	36
Compotes and cooked fruits	0%	7%	0%	0%	14
Condiments and sauces	9%	36%	2%	14%	56
Products for special nutritional use	0%	17%	0%	8%	12
TOTAL:	20%	30%	8%	14%	1228

Annex 2: Eligibility of foods for bearing claims about fatty acids

1. Review of claims that are the subject of scientific and technical support (AST: *appui scientifique et technique*)

[1] – Source of *n-3 polyunsaturated fatty acids*: at least 0.3 g of alpha-linolenic acid (ALA) per 100 g AND per 100 kcal or at least 40 mg eicosapentaenoic acid (EPA) + docosahexaenoic acid (DHA) per 100 g AND per 100 kcal;

[2] – High in *n-3 polyunsaturated fatty acids*: at least 0.6 g of ALA per 100 g AND per 100 kcal or at least 80 mg of EPA+DHA per 100 g AND per 100 kcal.

[3] – High in *monounsaturated fatty acids*: at least 45% of FAs in the product are monounsaturated and monounsaturated FAs provide at least 20% of the TEI of the product.

[4] – High in *polyunsaturated fatty acids*: at least 45% of FAs in the product are polyunsaturated and polyunsaturated FAs provide at least 20% of the TEI of the product

[5] – High in *unsaturated fatty acids*: at least 70% of FAs in the product are unsaturated and unsaturated FAs provide at least 20% of the TEI of the product

2. Questions asked

Under the terms of the AST, and on the basis of precise and concrete factors, the following are required:

- naming the foods eligible for bearing claims [1] or [2] with the criterion 'OR' on the one hand, and the criterion 'AND' on the other
- naming the foods eligible for bearing claims [4] and [5] and mentioning the value of the omega 6/omega 3 ratio for each of them

3. Methodology

3.1. Composition data

This AST is based on information about the nutritional composition of foods.

The acronyms of the components necessary for simulations are defined in Table 1.

Table 1. Definition of the acronyms of the components used for simulations

Acronym	Component	Unit
MUFA	Sum of monounsaturated fatty acids	g/100 g
PUFA	Sum of polyunsaturated fatty acids	g/100 g
TFA	Total fatty acids	g/100 g
ALA	Alpha-linolenic acid (C18:3, n-3)	g/100 g
ARA	Arachidonic acid (C20:4, n-6)	g/100 g
DHA	Docosahexaenoic acid (C22:6, n-3)	g/100 g
EPA	Eicosapentaenoic acid (C20:5, n-3)	g/100 g
KCAL	Energy	kcal/100 g
LA	Linoleic acid (C18:2, n-6)	g/100 g

CIQUAL data

In France, the current version of the composition reference table is the French food composition Table CIQUAL 2008⁽¹⁾. It covers 42 components for the 1351 foods most frequently consumed by the population. Data concerning the MUFA and PUFA sums are listed in it.

Detailed data concerning n-3 and n-6 PUFA have not yet been published. The database is in the process of being updated for these components, which will be added in the next version of the table.

The CIQUAL database is divided into two levels:

- raw, confidential, documented data, connected to a specific source, the quality of which has been assessed,
- aggregated or consolidated data, which are obtained from a selection of raw data. When multiple raw data have been selected for a given food/component pair, CIQUAL produces an average estimation on the basis of the selected raw data. The quality of the aggregated data is also assessed. Some of these consolidated data make up the French food composition Table CIQUAL 2008.

Currently, CIQUAL is in the process of collecting raw data on omega-3 and omega-6 fatty acids and only a few consolidations have been made up to now. The current availability of these consolidated data is detailed below, based on claims to be simulated.

- a) Eligibility for bearing claims about omega-3 fatty acids ([1], [2])

Table 2. Relationship between availability of compiled data and ability to assess eligibility for claims for omega-3 ([1] or [2]).

Availability of data	Assessment
The level of ALA <u>or</u> that of EPA+DHA of the food is available, and either one allows eligibility for a claim for n-3 PUFAs	food eligible for a claim.
The levels of ALA <u>and</u> EPA+DHA of the food are available, and neither one allows eligibility for a claim for n-3 PUFAs	food not eligible for a claim.
The food is considered as having an insignificant level of total lipids (<0.1g/100 g, without more precise quantification)	
The food does not have an insignificant level of lipids, the level of ALA <u>or</u> that of EPA+DHA of the food is available, but it does not allow eligibility for a claim for n-3 PUFAs.	food with unknown eligibility for a claim.
The food does not have an insignificant level of lipids, and the levels of ALA, EPA and DHA are not available	

For the 1351 foods in the French food composition Table CIQUAL 2008, the availability of the data compiled in the database enable the assessment of eligibility for the claim [1] ('source') with the criterion 'OR' for 23% of the foods (8% of foods being eligible for this claim with the criterion 'AND'). For foods that belong to the remaining 77%, the missing data do not enable determination of eligibility for the claims.

For some food families (unprocessed fish and batrachians, fish products, unprocessed shellfish and molluscs), the CIQUAL database contains enough data to provide a representative overview of eligibility for claims for omega-3's. For many other families, on the other hand, the available data on some foods do not enable an estimation of eligibility for the claims. Consequently, at this time it is not possible to cover all the food families consumed in France with the available CIQUAL data.

In particular, for foods that contain low amounts of lipids (vegetables, for example), scant data are available, on the one hand, because the qualitative and quantitative extraction of these lipids is difficult to achieve and on the other, because their low lipid content has not made them priority foods for research on their fatty acid profile. However, on condition that eligibility for claims for fatty acids can be achieved per 100 kcal, the fatty acid profile of these foods should be determined because it is possible that foods with low caloric value per 100 g may bear claims for fatty acids if these are based on thresholds expressed per 100 kcal.

b) Eligibility for claims for (poly)unsaturated fatty acids ([4], [5])

The 2008 CIQUAL Table provides unsaturated and polyunsaturated fatty acid levels, except for 204 foods that have trace amounts of total lipids.

Among the 1147 remaining foods, only 164 can bear the claim [4] ('high in unsaturated fatty acids') and 46 the claim [5] ('high in polyunsaturated fatty acids'). The data in its base currently enable CIQUAL to provide an omega-6 / omega-3 ([LA+ARA] / [ALA+EPA+DHA] or LA/ALA) ratio for 63 foods eligible for claim [4] and 18 foods eligible for claim [5].

SU.VI.MAX data

By themselves, the data compiled from CIQUAL are currently inadequate for fully evaluating the Commission's claims proposals.

Thus, data from the French SU.VI.MAX⁽²⁾ table were also used.

The SU.VI.MAX table provides data on key parameters for a nomenclature of foods representative of French consumption. All of the 923 foods may be considered for evaluating claims.

Its limitations stem from the quality of its sources. As the authors point out:

- The nutritional composition of 30% of the foods in the table (or 284) was obtained by calculation,
- The data for the fatty acids profiles come from foreign tables (British⁽⁶⁾, German⁽⁷⁾, American⁽⁸⁾).

3.2. Logical organisation of claims [1] and [2] and presentation of results

If $\{P \geq x\}$ represents the group of foods for which the parameter P has a minimum value of x:

- $A_H = \{ALA \geq 0.6\}$, respectively $A_S = \{0.6 > ALA \geq 0.3\}$, is the group of foods containing a minimum of 0.6g/100 g, respectively a minimum of 0.3g/100 g and less than 0.6g/100 g, of alpha-linolenic acid,
- $B_H = \{100 \times ALA/KCAL \geq 0.6\}$, respectively $B_S = \{0.6 > 100 \times ALA/KCAL \geq 0.3\}$, is the group of foods containing a minimum of 0.6g/100 kcal, respectively a minimum of 0.3g/100 kcal and less than 0.6g/100 g, of alpha-linolenic acid,
- $C_H = \{EPA + DHA \geq 0.08\}$, respectively $C_S = \{0.08 > EPA + DHA \geq 0.04\}$, is the group of foods containing a minimum of 0.08g/100 g, respectively a minimum of 0.04g/100 g and less than 0.08g/100 g, of the sum of the eicosapentaenoic and docosahexaenoic acids,
- $D_H = \{100 \times (EPA + DHA) / KCAL \geq 0.08\}$, respectively $D_S = \{0.08 > 100 \times (EPA + DHA) / KCAL \geq 0.04\}$, is the group of foods containing a minimum of 0.08g/100 kcal, respectively, a minimum of 0.04g/100 kcal and less than 0.08g/100 kcal, of the sum of the eicosapentaenoic and docosahexaenoic acids,

The group of foods eligible for claim [1], 'source of omega-3', under the scenario 'OR' is such that:

$$S_{OR} = (A_S \cup B_S) \cup (C_S \cup D_S) = (A_S \cup C_S) \cup (B_S \cup D_S) = E_S \cup F_S$$

The group of foods eligible for claim [1], 'source of omega-3', under the scenario 'AND' is such that:

$$S_{AND} = (A_S \cap B_S) \cap (C_S \cap D_S) = (A_S \cap C_S) \cap (B_S \cap D_S) = E_S \cap F_S$$

Where E_S , respectively F_S , represents the group of foods that meet the criteria of 'source' based on 100 g, respectively 100 kcal.

Similarly, the group of foods eligible for claim [2], 'high in omega-3, under the scenario 'OR', respectively under the scenario 'AND', written $H_{OR} = E_H \cup F_H$, respectively $H_{AND} = E_H \cap F_H$; where E_H , respectively F_H , represents the food that meet the criteria for 'high' based on 100 g, respectively 100 kcal.

Requests implemented on the basis of composition data are constructed from these logical statements that express the scenarios 'AND/OR' regarding claims for n-3 PUFAs, [1] and [2].

The results are presented in a table by source of data:

- listing the foods eligible for at least claim [1] under the scenario 'OR',

- classified by family as indicated in the table from which the data are extracted (in alphabetical order), then by food (in alphabetical order),
- with reference to eligibility for the claim 'source/high' according to the 'AND/OR' scenario,
- with reference to eligibility for the claim 'source/high' on the bases of 100 g and 100 kcal.

Figure 2 shows the distribution of foods according to their eligibility for a claim for n-3 PUFAs.

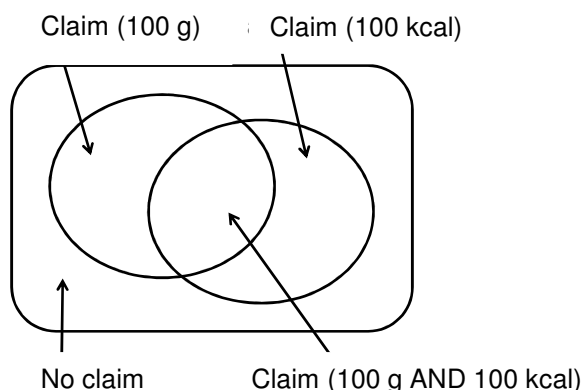


Figure 2. Diagram showing distribution of foods based on their eligibility for omega-3 claims

In addition to the thresholds established by the European Commission, the thresholds defined in the AFSSA report on validation of claims for n-3 PUFAs have also been tested:

- food source of n-3 PUFA if the level of ALA ≥ 0.3 g per 100 g and 100 kcal OR if the level of EPA+DHA ≥ 75 mg per 100 g and per 100 kcal (or 15% of the ANC)
- food high in n-3 PUFA if the level of ALA ≥ 0.6 g per 100 g and 100 kcal OR if the level of EPA+DHA ≥ 150 mg per 100 g and per 100 kcal (or 30% of the ANC)

These thresholds derive from the application of the 2009 DRV's (AFSSA 2009).

3.3 Logical expressions used for claims [4] and [5] and presentation of results

- 'If $\{P \geq x\}$ ' represents the group of foods for which the parameter P has a minimum value of x:
- ' $P_1 = \{PUFA / TFA \geq 0.45\}$ ' is the group of foods containing a minimum proportion of 45% of polyunsaturated fatty acids to total fatty acids,
- ' $P_2 = \{9 \times PUFA / KCAL > 0.2\}$ ' is the group of foods for which the energy value of the polyunsaturated fatty acids exceeds 20% of the total energy value,
- ' $U_1 = \{(MUFA + PUFA) / TFA \geq 0.7\}$ ' is the group of foods containing a minimum proportion of 70% of unsaturated fatty acids to total fatty acids,
- ' $U_2 = \{9 \times (MUFA + PUFA) / KCAL > 0.2\}$ ' is the group of foods for which the energy value of the unsaturated fatty acids exceeds 20% of the total energy value,

The group of foods eligible for claim [4], 'high in polyunsaturated fatty acids' is such that $P = P_1 \cap P_2$. The group of foods qualifying for claim [5], 'high in unsaturated fatty acids' is such that $U = U_1 \cap U_2$.

Requests implemented on the basis of composition data are constructed from these logical statements that express claims [4] and [5].

The results are given in a table:

- listing the foods eligible for at least one claim [4] or [5],
- classified by family (alphabetical order) then by decreasing levels of unsaturated fatty acid (g/100 g),
- stating whether the claim 'high' is obtained for [4], respectively [5],

- reporting the values of the omega-6 / omega-3 criterion with 2 calculation methods,
 - $\Sigma(\text{omega-6}) / \Sigma(\text{omega-3})$, sum of all the available components for each group,
 - LA / ALA.

4. Results

Tables 4, 5, 5a, 6, 7 and 7a give the results of various simulations according to the CIQUAL and SU.VI.MAX data sources:

- tables 4, 5 and 5a correspond to claims [1] and [2] for n-3 PUFAs;
- tables 6, 7 and 7a correspond to claims [3], [4] and [5] for MUFAs, PUFAs and UFAs;

For claims [3], [4] and [5], it has not always been possible to calculate the n-6 PUFA/n-3 PUFA ratios, due to a lack of available data on the group of foods qualifying for the claims.

Table 3 enumerates the foods eligible for claims for n-3 PUFAs according to different scenarios.

Table 3. Quantitative distribution of foods eligible for claims for n-3 PUFAs ([1], [2]), per data source and per scenario used.

SOURCE	TOTAL: (100%)	'AND'	'OR'	BASE 100 g	BASE 100 kcal
CIQUAL (*partial)	312*	114 (37%)	134 (43%)	133 (43%)	115 (37%)
SU.VI.MAX	923	125 (14%)	207 (22%)	188 (20%)	144 (16%)

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Table 4. CIQUAL foods eligible for bearing claims [1] or [2], for n-3 PUFA. KCAL, energy (kcal); ALA, alpha-linolenic acid (g/100 g); EPA (g/100g); DHA (g/100 g).CIQUAL 2008 data, 134 foods out of 1351.

FAMILY	FOOD	KCAL	ALA	EPA	DHA	BASE 100g	BASE 100kcal	SCENARIO	
								OR	AND
Other animal fats and oils	Cod liver oil	899	0.350	10.549	10.358	HIGH	HIGHH	HIGH	HIGH
Other animal fats and oils	Fish oil	899		10.549	10.358	HIGH	HIGH	HIGH	HIGH
Butters and dairy fats	Unsalted butter	748	0.330	0.031		SOURCE	HIGH	SOURCE	
Non alcoholic beverages	Tonyu (soy drink), plain	39	0.190				SOURCE	SOURCE	
Unprocessed shellfish and molluscs	Periwinkle, cooked	135	0.060	0.201	0.093	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Whelk, cooked	114	0.000	0.055	0.022	SOURCE	SOURCE	SOURCE	SOURCE
Unprocessed shellfish and molluscs	Calamari, Roman Calamari (fritter)	254		0.040	0.091	HIGH	SOURCE	HIGH	SOURCE
Unprocessed shellfish and molluscs	Ciam, <i>Praire</i> or <i>Palourde</i> , cooked in water	36		0.183	0.132	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Coquille Saint-Jacques, flesh and coral, raw	77		0.120	0.137	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Coquille Saint-Jacques, flesh and coral, cooked	106		0.120	0.137	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Crab or Crabcake, cooked in water	127	0.020	0.760	0.360	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Shrimp, cooked	96		0.200	0.170	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Crayfish, raw	71		0.200	0.170	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Seafood (average)	93		0.183	0.132	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Lobster, cooked in water	90		0.250	0.115	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Oyster, raw	22		0.147	0.071	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Spiny lobster, cooked in water	136		0.170	0.080	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Mussels, cooked in water	115	0.020	0.340	0.214	HIGH	HIGH	HIGH	HIGH
Unprocessed shellfish and molluscs	Cuttlefish, raw	88	0.010	0.100	0.227	HIGH	HIGH	HIGH	HIGH
Cheeses, aged, hard	<i>Beaufort</i>	398	0.329	0.024		SOURCE		SOURCE	
Cheeses, aged, hard	<i>Comté</i>	405	0.307	0.025		SOURCE		SOURCE	
Cheeses, aged, veined	Gorgonzola	356	0.320			SOURCE		SOURCE	
Cakes and pastries	Chocolate brownie	444	0.844	0.004		HIGH		HIGH	
Cakes and pastries	Chocolate cake	416	0.409			SOURCE		SOURCE	
Vegetable oils and fats	Oil, blended	899	1.200			HIGH		HIGH	
Vegetable oils and fats	Rapeseed oil	900	9.600			HIGH	HIGH	HIGH	HIGH
Vegetable oils and fats	Corn oil	899	0.900			HIGH		HIGH	
Vegetable oils and fats	Walnut oil	899	12.300			HIGH	HIGH	HIGH	HIGH
Vegetable oils and fats	Grapeseed oil	900	0.300			SOURCE		SOURCE	
Vegetable oils and fats	Soy oil	899	7.300			HIGH	HIGH	HIGH	HIGH
Vegetable oils and fats	Virgin olive oil	898	0.850			HIGH		HIGH	
Legumes	Mung bean sprouts or soy shoots, fresh	31	0.320			SOURCE	HIGH	HIGH	SOURCE
Pulses	Tofu	125	0.880			HIGH	HIGH	HIGH	HIGH
Margarines and compound fat materials	Margarine 80% fat, sunflower seed, hard	736	2.000			HIGH		HIGH	
Margarines and compound fat materials	Margarine 80% fat, soft	739	1.240			HIGH		HIGH	
Pizzas, crepes and savoury pies	Salmon and sorrel pie	229		0.124	0.175	HIGH	HIGH	HIGH	HIGH
Cereal or pasta dishes	Paella	133		0.026	0.017	SOURCE		SOURCE	
Fish dishes	Shrimp fritter	275		0.060	0.051	HIGH	SOURCE	HIGH	SOURCE
Fish dishes	<i>Bouchée à la reine</i> [Vol au vent], of fish and seafood	134		0.103	0.210	HIGH	HIGH	HIGH	HIGH
Fish dishes	Shrimp kebabs	104		0.050	0.084	HIGH	HIGH	HIGH	HIGH
Fish dishes	Fish kebabs	126		0.112	0.230	HIGH	HIGH	HIGH	HIGH
Fish dishes	Salmon carpaccio	238		0.450	0.640	HIGH	HIGH	HIGH	HIGH
Fish dishes	Salmon in puff pastry	268		0.185	0.261	HIGH	HIGH	HIGH	HIGH
Fish dishes	Fish, sorrel sauce	117		0.015	0.039	SOURCE	SOURCE	SOURCE	SOURCE
Fish dishes	Quenelle of fish, cooked	262		0.031	0.062	HIGH		HIGH	
Mixed dishes	Meat, poultry or fish fritter, homemade	236		0.037	0.117	HIGH	SOURCE	HIGH	SOURCE
Mixed dishes	Brik pastry (filling: shrimp, vegetables, poultry, meat, fish, etc.)	186		0.033	0.035	SOURCE		SOURCE	
Unprocessed fish and batrachians	Anchovies, raw	113	0.049	0.297	0.791	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Eel, baked	229		0.236	0.472	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Eel, poached	204		0.236	0.472	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Atlantic sea bass or seabass, raw	104		0.406	0.542	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Pike, baked	94		0.241	0.475	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Cod, steamed	82		0.072	0.160	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Cod, baked	98		0.072	0.160	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Carp, baked	136		0.066	0.060	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Plaice or flounder, steamed	94		0.072	0.378	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Grey bream, sea bream or <i>Griset</i> , raw	76		0.470	0.388	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Haddock, steamed	89		0.049	0.092	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Smelt, raw	96		0.241	0.475	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Swordfish, baked	148		0.374	0.586	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Halibut (Atlantic), raw	110		0.241	0.475	HIGH	HIGH	HIGH	HIGH

FAMILY	FOOD	KCAL	ALA	EPA	DHA	BASE 100g	BASE 100kcal	SCENARIO	
								OR	AND
Unprocessed fish and batrachians	Herring, fried	233		1.520	1.740	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Herring,grilled	181		1.520	1.740	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Ling, raw	81		0.051	0.077	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Saithe, cooked	102	0.010	0.064	0.202	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Lemon sole, steamed	91		0.240	0.100	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Anglerfish or monkfish, grilled	94		0.053	0.133	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Mackerel, baked	249		0.870	1.380	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Mackerel, fried	234		0.870	1.380	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Whiting, steamed	92		0.046	0.135	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Whiting, fried	177		0.046	0.135	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Hake, braised	67		0.112	0.468	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Mullet, baked	143		0.522	0.165	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Perch, baked	95		0.020	0.082	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Fish cooked (average)	154		0.241	0.475	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Fish, breaded,fried	202		0.153	0.266	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Skate, cooked in court bouillon	69		0.011	0.109	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Skate, baked	80		0.011	0.109	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Rockfish, raw	90		0.077	0.321	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Rock red mullet, braised	100	0.000	0.993	0.629	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Dogfish, cuoked	246		0.012	0.086	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Sardine, grilled	196		1.990	2.840	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Salmon, raw, farmed	190	0.060	0.529	0.746	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Salmon, steamed	201		0.780	1.500	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Sole, steamed	70		0.019	0.081	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Sole, baked	73		0.019	0.081	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Tuna, raw	134		0.236	0.853	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Tuna, baked	163		0.236	0.853	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Rainbow trout, farmed, steamed	119		0.174	0.677	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Rainbow trout, farmed, baked	159		0.294	0.636	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Trout, steamed	106		0.294	0.636	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Trout, baked	125		0.294	0.636	HIGH	HIGH	HIGH	HIGH
Unprocessed fish and batrachians	Turbot, baked	116		0.364	0.428	HIGH	HIGH	HIGH	HIGH
Shellfish and mollusc products	Crab, canned	138		0.916	0.633	HIGH	HIGH	HIGH	HIGH
Shellfish and mollusc products	Prawns, breaded, fried	324		0.051	0.060	HIGH		HIGH	
Fish products	Achovies, marinated	140		0.350	0.543	HIGH	HIGH	HIGH	HIGH
Fish products	Anchovies, fillets in oil, semi-preserved, drained	182		0.283	0.640	HIGH	HIGH	HIGH	HIGH
Fish products	Caviar, semi-preserved	253		1.360	1.770	HIGH	HIGH	HIGH	HIGH
Fish products	Haddock, breaded, fried	160		0.028	0.534	HIGH	HIGH	HIGH	HIGH
Fish products	Cod liver, canned, drained	518		5.500	3.690	HIGH	HIGH	HIGH	HIGH
Fish products	Smoked haddock)	104		0.048	0.050	HIGH	HIGH	HIGH	HIGH
Fish products	Smoked herring	146		2.980	1.110	HIGH	HIGH	HIGH	HIGH
Fish products	Pickled herring or rollmops	237		0.955	1.790	HIGH	HIGH	HIGH	HIGH
Fish products	Lemon sole, breaded, fried	217		0.059	0.110	HIGH	SOURCE	HIGH	SOURCE
Fish products	Smoked mackerel	227		1.092	0.853	HIGH	HIGH	HIGH	HIGH
Fish products	Mackerel, fillet in white wine, canned, drained	220		0.873	1.140	HIGH	HIGH	HIGH	HIGH
Fish products	Mackerel, fillet in mustard sauce, canned, drained	217		2.870	1.630	HIGH	HIGH	HIGH	HIGH
Fish products	Mackerel, fillet in tomato sauce, canned, drained	215		0.840	2.300	HIGH	HIGH	HIGH	HIGH
Fish products	Cod, salted, poached	91		0.027	0.173	HIGH	HIGH	HIGH	HIGH
Fish products	Fish mousse	185		0.410	0.320	HIGH	HIGH	HIGH	HIGH
Fish products	Lumpfish eggs, semi-preserved	89	0.010	1.360	1.770	HIGH	HIGH	HIGH	HIGH
Fish products	Fish or shellfish pâté	248		0.493	0.302	HIGH	HIGH	HIGH	HIGH
Fish products	Pilchard, in tomato sauce, canned, drained	144	0.070	0.840	2.300	HIGH	HIGH	HIGH	HIGH
Fish products	Fish in sauce, frozen	101		0.036	0.177	HIGH	HIGH	HIGH	HIGH
Fish products	Fish, croquette, fried	220		0.153	0.266	HIGH	HIGH	HIGH	HIGH
Fish products	Salmon spread	231		0.776	0.913	HIGH	HIGH	HIGH	HIGH
Fish products	Tuna spread	223		0.159	0.545	HIGH	HIGH	HIGH	HIGH
Fish products	Sardines, in oil, canned, drained	227	0.212	0.729	1.260	HIGH	HIGH	HIGH	HIGH
Fish products	Sardines, sauce tomate, canned, drained	165	0.190	1.990	2.840	HIGH	HIGH	HIGH	HIGH
Fish products	Smoked salmon	195	0.064	2.170	1.360	HIGH	HIGH	HIGH	HIGH
Fish products	Surimi, sticks	102	0.276	0.055	0.110	HIGH	HIGH	HIGH	HIGH
Fish products	Taramasalata, prepackaged	463	4.520	0.410	0.320	HIGH	HIGH	HIGH	HIGH
Fish products	Fish terrine	161		0.493	0.302	HIGH	HIGH	HIGH	HIGH
Fish products	Tuna in oil, canned, drained	234	0.740	0.041	0.250	HIGH	HIGH	HIGH	HIGH
Fish products	Albacore or white tuna in soybean oil, canned, drained	181	0.387	0.283	0.882	HIGH	HIGH	HIGH	HIGH
Fish products	Albacore or white tuna, pressure-steamed	166		0.037	0.155	HIGH	HIGH	HIGH	HIGH
Fish products	Tuna, plain, canned, drained	110	0.000	0.037	0.155	HIGH	HIGH	HIGH	HIGH
Fish products	Smoked trout	175		2.990	1.500	HIGH	HIGH	HIGH	HIGH
Mixed salads and vegetables	Tuna and vegetable salad, canned, drained	114		0.008	0.039	SOURCE	SOURCE	SOURCE	SOURCE
Sandwiches	Baguette sandwich, smoked salmon, butter	260		0.423	0.265	HIGH	HIGH	HIGH	HIGH
Savory sauces and condiments	Low fat and oil mayonnaise	376	0.700			HIGH		HIGH	
Soups ready to eat	Fish and/or shellfish soup, prepackaged for reheating	46		0.135	0.363	HIGH	HIGH	HIGH	HIGH
Meat	Horse, meat, roasted	174	0.694			HIGH	SOURCE	HIGH	SOURCE
Poultry	Chicken thigh meat and skin, roasted	231	0.320			SOURCE		SOURCE	

Table 5. SU.VI.MAX foods eligible for bearing claims [1] or [2], for n-3 PUFA. KCAL, energy (kcal) ; ALA, Alpha-linolenic acid (g/100g); EPA (g/100g); DHA (g/100g). SU.VI.MAX data, 207 foods out of 923.

FAMILY	FOOD	KCAL	ALA	EPA	DHA	BASE 100g	BASE 100kcal	SCENARIO	
								OR	AND
Offal	Lamb brains, cooked	160	0.030	0.005	0.700	HIGH	HIGH	HIGH	HIGH
Offal	Pork brains, braised	161	0.030	0.005	0.700	HIGH	HIGH	HIGH	HIGH
Offal	Calf's brains, cooked	161	0.030	0.005	0.700	HIGH	HIGH	RICH	HIGH
Offal	Heart and others, cooked	163	0.010	0.050	0.025	SOURCE	SOURCE	SOURCE	SOURCE
Offal	Beef heart, cooked	163	0.010	0.050	0.025	SOURCE	SOURCE	SOURCE	SOURCE
Offal	Calf's heart, cooked	163	0.010	0.050	0.025	SOURCE	SOURCE	SOURCE	SOURCE
Offal	Liver and others, cooked	152	0.050	0.130	0.085	HIGH	HIGH	HIGH	HIGH
Offal	Lamb's liver, cooked	162	0.050	0.130	0.085	HIGH	HIGH	HIGH	HIGH
Offal	Heifer's liver, cooked	152	0.050	0.130	0.085	HIGH	HIGH	HIGH	HIGH
Offal	Calf's liver, cooked	159	0.030	0.030	0.020	SOURCE		SOURCE	
Offal	Chicken liver, cooked	169	0.050	0.080	0.120	HIGH	HIGH	HIGH	HIGH
Offal	Gizzard	159	0.040	0.020	0.045	SOURCE	SOURCE	SOURCE	SOURCE
Offal	Beef tongue, cooked	258	0.050	0.050	0.025	SOURCE		SOURCE	
Offal	Calf's tongue, raw	135	0.050	0.050	0.025	SOURCE	SOURCE	SOURCE	SOURCE
Offal	Lamb sweetbreads, braised	165	0.010	0.040	0.020	SOURCE		SOURCE	
Offal	Veal sweetbreads, braised	165	0.010	0.040	0.020	SOURCE		SOURCE	
Offal	Other kidney, cooked	165	0.040	0.020	0.045	SOURCE		SOURCE	
Offal	Beef kidney, cooked	165	0.040	0.020	0.045	SOURCE		SOURCE	
Offal	Pig kidney, cooked	93	0.020	0.020	0.025	SOURCE	SOURCE	SOURCE	SOURCE
Appetizers	Toast, large, garnished	362	0.180	0.134	0.235	HIGH	HIGH	HIGH	HIGH
Appetizers	Toast, small, garnished	362	0.180	0.134	0.235	HIGH	HIGH	HIGH	HIGH
Biscuits	Chocolate biscuit	485	1.000	0.000	0.000	HIGH		HIGH	
Biscuits	Waffle	438	0.090	0.001	0.066	SOURCE		SOURCE	
Hot beverages	Malt and barley drinks, plain	93	0.300	0.000	0.000	SOURCE	SOURCE	SOURCE	SOURCE
Delicatessen	Foie gras	448	0.200	0.050	0.050	HIGH		HIGH	
Shellfish, seafood	Periwinkle, cooked	135	0.000	0.100	0.100	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Shrimp kebabs	259	0.070	0.103	0.064	HIGH	SOURCE	HIGH	SOURCE
Shellfish, seafood	Whelk, cooked	83	0.000	0.100	0.100	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Squid / octopus / cuttlefish, raw	89	0.000	0.170	0.330	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Cockles, cooked	102	0.000	0.150	0.150	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Coquille Saint-Jacques, raw	87	0.000	0.225	0.225	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Crab, cooked	98	0.010	0.250	0.220	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Crab, canned	98	0.010	0.150	0.120	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Shrimp, cooked	101	0.010	0.200	0.120	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Pink shrimp, cooked	101	0.010	0.200	0.120	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Gamba prawns, cooked	101	0.010	0.200	0.120	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Lobster, cooked	94	0.010	0.200	0.120	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Oysters, raw	68	0.010	0.120	0.170	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Spiny lobster, raw	91	0.010	0.200	0.120	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Prawns, raw	91	0.010	0.200	0.120	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Mussels, cooked in water	117	0.000	0.200	0.300	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Mussels, canned	117	0.000	0.200	0.300	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Palourde clams, raw	77	0.000	0.150	0.150	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Seafood platter	84	0.010	0.120	0.170	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Whole prairie clams, raw	77	0.000	0.150	0.150	HIGH	HIGH	HIGH	HIGH
Shellfish, seafood	Crabcake, cooked	98	0.010	0.250	0.220	HIGH	HIGH	HIGH	HIGH
Desserts	Galette des rois [Twelfth Night Cake], simple	560	0.320	0.000	0.000	SOURCE		SOURCE	
Desserts	Gâteau de savoie [Savoy cake]	267	0.060	0.001	0.053	SOURCE		SOURCE	
Desserts	Mousse au chocolat	309	0.040	0.001	0.049	SOURCE		SOURCE	
Desserts	Fruit mousse	156	0.080	0.001	0.048	SOURCE		SOURCE	
Desserts	North African Middle Eastern pastries	450	0.470	0.000	0.000	SOURCE		SOURCE	
Flour	Soy flour	381	1.350	0.000	0.000	HIGH	SOURCE	HIGH	SOURCE
Cheese	Goat cheese	367	0.310	0.000	0.000	SOURCE		SOURCE	
Cheese	Boursin®	405	0.330	0.000	0.000	SOURCE		SOURCE	
Cheese	Pyrenees sheep's milk cheese	387	0.310	0.000	0.000	SOURCE		SOURCE	
Cheese	Roquefort	360	0.450	0.000	0.000	SOURCE		SOURCE	
Packaged cheese	Rambol® au noix processed cheese	366	1.000	0.000	0.000	HIGH		HIGH	
Dried fruit	Walnuts	674	7.000	0.000	0.000	HIGH	HIGH	HIGH	HIGH
Dried fruit	Pistachios, salted	599	0.300	0.000	0.000	SOURCE		SOURCE	
Hors d'oeuvres	Avocado with crab, unseasoned	133	0.070	0.029	0.024	SOURCE		SOURCE	
Hors d'oeuvres	Avocado with shrimp, sunseasoned	134	0.070	0.039	0.024	SOURCE	SOURCE	SOURCE	SOURCE
Hors d'oeuvres	Caviar	253	0.020	1.750	2.450	HIGH	HIGH	HIGH	HIGH
Hors d'oeuvres	Watercress, raw, plain	13	0.100	0.000	0.000		HIGH	HIGH	
Hors d'oeuvres	Frisée greens, raw, plain	13	0.080	0.000	0.000		HIGH	HIGH	
Hors d'oeuvres	Herring, for salad, unseasoned	148	0.030	0.623	0.678	HIGH	HIGH	HIGH	HIGH
Hors d'oeuvres	Lettuce, raw, plain	13	0.080	0.000	0.000		HIGH	HIGH	
Hors d'oeuvres	Mousseline of crab	186	0.110	0.117	0.103	HIGH	HIGH	HIGH	HIGH
Hors d'oeuvres	Mousseline of shrimp	187	0.110	0.093	0.056	HIGH	SOURCE	HIGH	SOURCE
Hors d'oeuvres	Fish eggs, canned, salted	117	0.010	1.000	1.260	HIGH	HIGH	HIGH	HIGH
Hors d'oeuvres	Eggs in aspic, with ham	123	0.040	0.002	0.045	SOURCE		SOURCE	
Hors d'oeuvres	Eggs in aspic, with salmon	139	0.050	0.159	0.359	HIGH	HIGH	HIGH	HIGH
Hors d'oeuvres	Mixed green salad, raw, plain	14	0.070	0.000	0.000		SOURCE	SOURCE	
Hors d'oeuvres	Green salad, raw, plain	13	0.080	0.000	0.000		HIGH	HIGH	
Hors d'oeuvres	Taramasalata	593	0.070	0.347	0.437	HIGH	HIGH	HIGH	HIGH
Milk	Eggnog	124	0.040	0.001	0.051	SOURCE	SOURCE	SOURCE	SOURCE
Vegetables	Broccoli, cooked	21	0.150	0.000	0.000		HIGH	HIGH	
Vegetables	White cabbage, cooked	14	0.100	0.000	0.000		HIGH	HIGH	

FAMILY	FOOD	KCAL	ALA	EPA	DHA	BASE 100g	BASE 100kcal	SCENARIO	
								OR	AND
Vegetables	Red cabbage, cooked	19	0.100	0.000	0.000		SOURCE	SOURCE	
Vegetables	Green cabbage, cooked	14	0.100	0.000	0.000		HIGH	HIGH	
Vegetables	Sauerkraut, drained	15	0.060	0.000	0.000		SOURCE	SOURCE	
Vegetables	Cauliflower, cooked	18	0.100	0.000	0.000		SOURCE	SOURCE	
Vegetables	Brussel sprouts, cooked	26	0.170	0.000	0.000		HIGH	HIGH	
Vegetables	Spinach, cooked, cuit	17	0.150	0.000	0.000		HIGH	HIGH	
Vegetables	Fennel, raw	16	0.050	0.000	0.000		SOURCE	SOURCE	
Fats and oils	Butter	747	0.600	0.000	0.000	HIGH		HIGH	
Fats and oils	Butter, low fat	401	0.310	0.000	0.000	SOURCE		SOURCE	
Fats and oils	Butter, low fat lightly salted	401	0.310	0.000	0.000	SOURCE		SOURCE	
Fats and oils	Butter, lightly salted	747	0.600	0.000	0.000	HIGH		HIGH	
Fats and oils	Goose fat	896	1.200	0.020	0.050	HIGH		HIGH	
Fats and oils	Rapeseed oil	899	10.000	0.000	0.000	HIGH	HIGH	HIGH	HIGH
Fats and oils	Corn oil	899	1.000	0.000	0.000	HIGH		HIGH	
Fats and oils	Walnut oil	899	12.000	0.000	0.000	HIGH	HIGH	HIGH	HIGH
Fats and oils	Soy oil	899	7.000	0.000	0.000	HIGH	HIGH	HIGH	HIGH
Fats and oils	Olive oil	899	0.850	0.000	0.000	HIGH		HIGH	
Fats and oils	Oil blend	899	1.200	0.000	0.000	HIGH		HIGH	
Fats and oils	Oil, unspecified	899	0.700	0.000	0.000	HIGH		HIGH	
Fats and oils	Lard, raw	670	0.400	0.015	0.020	SOURCE		SOURCE	
Fats and oils	Margarine	747	1.000	0.000	0.000	HIGH		HIGH	
Fats and oils	Margarine, low fat	378	0.500	0.000	0.000	SOURCE		SOURCE	
Fats and oils	Sandwich spread	632	1.000	0.000	0.000	HIGH		HIGH	
Fats and oils	Low fat sandwich spread	398	0.500	0.000	0.000	SOURCE		SOURCE	
Fats and oils	Lard	891	0.600	0.020	0.030	HIGH		HIGH	
Eggs	Yolks, raw	350	0.220	0.007	0.400	HIGH	HIGH	HIGH	HIGH
Eggs	Boiled egg	146	0.060	0.002	0.100	HIGH	SOURCE	HIGH	SOURCE
Eggs	Fried egg	185	0.060	0.002	0.100	HIGH	SOURCE	HIGH	SOURCE
Eggs	Scrambled egg	219	0.060	0.002	0.100	HIGH	SOURCE	HIGH	SOURCE
Eggs	Raw egg	146	0.060	0.002	0.100	HIGH	SOURCE	HIGH	SOURCE
Eggs	Hard boiled egg	146	0.060	0.002	0.100	HIGH	SOURCE	HIGH	SOURCE
Eggs	Poached egg	146	0.060	0.002	0.100	HIGH	SOURCE	HIGH	SOURCE
Eggs	Omelette, plain	173	0.060	0.002	0.100	HIGH	SOURCE	HIGH	SOURCE
Exotic dishes	Accra	242	0.040	0.030	0.067	HIGH	SOURCE	HIGH	SOURCE
Exotic dishes	Brik pastry with filling	191	0.050	0.036	0.042	SOURCE	SOURCE	SOURCE	SOURCE
Exotic dishes	Salmon carpaccio	192	0.130	0.621	1.242	HIGH	HIGH	HIGH	HIGH
Exotic dishes	Couscous with fish	112	0.040	0.086	0.159	HIGH	HIGH	HIGH	HIGH
Exotic dishes	Shrimp, Chinese style	129	0.040	0.045	0.044	HIGH	SOURCE	HIGH	SOURCE
Exotic dishes	Paella	127	0.180	0.035	0.034	SOURCE	SOURCE	SOURCE	SOURCE
Exotic dishes	Spring rolls	59	0.010	0.042	0.025	SOURCE	HIGH	HIGH	SOURCE
Exotic dishes	Chinese soup	45	0.030	0.017	0.010		SOURCE	SOURCE	
Exotic dishes	Steamed Chinese specialties	172	0.020	0.037	0.022	SOURCE		SOURCE	
Exotic dishes	Fish tagine	71	0.030	0.297	0.079	HIGH	HIGH	HIGH	HIGH
Commercial dishes	Fish and starchy foods	126	0.030	0.052	0.108	HIGH	HIGH	HIGH	HIGH
Commercial dishes	Fish and green vegetables	79	0.050	0.051	0.105	HIGH	HIGH	HIGH	HIGH
Traditional dishes	Bouillabaisse	122	0.070	0.169	0.312	HIGH	HIGH	HIGH	HIGH
Traditional dishes	Brandade de morue [Salt cod dip]	266	0.150	0.071	0.142	HIGH	HIGH	HIGH	HIGH
Traditional dishes	Carp, stuffed	242	0.210	0.199	0.166	HIGH	HIGH	HIGH	HIGH
Traditional dishes	Coulibiac of fish	355	0.200	0.084	0.168	HIGH	SOURCE	HIGH	SOURCE
Traditional dishes	Galette de sarrasin, [buckwheat crepes] filled	218	0.100	0.033	0.066	HIGH	SOURCE	HIGH	SOURCE
Traditional dishes	Pike dumpling	174	0.090	0.007	0.041	SOURCE		SOURCE	
Traditional dishes	Tofu	120	0.450	0.000	0.000	SOURCE	SOURCE	SOURCE	SOURCE
Fish	Anchovies	160	0.050	0.500	0.750	HIGH	HIGH	HIGH	HIGH
Fish	Eel, baked	230	0.150	0.400	0.465	HIGH	HIGH	HIGH	HIGH
Fish	Atlantic seabass / seabass, raw	111	0.020	0.700	0.185	HIGH	HIGH	HIGH	HIGH
Fish	Monkfish, grilled	93	0.000	0.045	0.160	HIGH	HIGH	HIGH	HIGH
Fish	Pike, baked	94	0.020	0.050	0.120	HIGH	HIGH	HIGH	HIGH
Fish	Fish kebab	95	0.020	0.127	0.299	HIGH	HIGH	HIGH	HIGH
Fish	Cod, baked	97	0.000	0.060	0.120	HIGH	HIGH	HIGH	HIGH
Fish	Carp, baked	136	0.330	0.330	0.275	HIGH	HIGH	HIGH	HIGH
Fish	Plaice, steamed	94	0.010	0.160	0.160	HIGH	HIGH	HIGH	HIGH
Fish	Hake, raw	78	0.000	0.035	0.120	HIGH	RICH	HIGH	HIGH
Fish	Haddock	77	0.000	0.035	0.120	HIGH	RICH	HIGH	HIGH
Fish	Halibut, raw	111	0.040	0.120	0.500	HIGH	HIGH	HIGH	HIGH
Fish	Haddock, smoked	101	0.010	0.050	0.120	HIGH	HIGH	HIGH	HIGH
Fish	Herring, raw	203	0.040	0.920	1.000	HIGH	HIGH	HIGH	HIGH
Fish	Saithe, cooked	89	0.000	0.085	0.180	HIGH	HIGH	HIGH	HIGH
Fish	Flounder, steamed	91	0.010	0.160	0.160	HIGH	HIGH	HIGH	HIGH
Fish	Burbot, raw	78	0.010	0.085	0.150	HIGH	HIGH	HIGH	HIGH
Fish	Mackerel, baked	184	0.170	0.740	1.100	HIGH	HIGH	HIGH	HIGH
Fish	Mackerel, canned	208	0.100	0.700	1.000	HIGH	RICH	HIGH	HIGH
Fish	Whiting, steamed	92	0.000	0.060	0.120	HIGH	HIGH	HIGH	HIGH
Fish	Cod, desalted, poached	138	0.000	0.100	0.200	HIGH	HIGH	HIGH	HIGH
Fish	Mullet, baked	143	0.050	0.200	0.400	HIGH	HIGH	HIGH	HIGH
Fish	Perch, baked	95	0.020	0.050	0.120	HIGH	HIGH	HIGH	HIGH
Fish	Fish croquette, fried	271	0.030	0.019	0.065	HIGH		HIGH	
Fish	Breaded fish, fried	103	0.010	0.025	0.087	HIGH	HIGH	HIGH	HIGH
Fish	Fish, unspecified	136	0.050	0.355	0.653	HIGH	HIGH	HIGH	HIGH
Fish	Skate, raw	73	0.000	0.055	0.200	HIGH	HIGH	HIGH	HIGH

Table 5a. SU.VI.MAX foods eligible for bearing claims [1] or [2], for n-3 PUFA. KCAL, energy (kcal); ALA, alpha-linolenic acid (g/100g); EPA (g/100g); DHA (g/100g). SU.VI.MAX data, 125 foods out of 923.

FAMILY	FOOD	KCAL	ALA	EPA	DHA	Base RNI	Eur. reg. threshold
Offal	Lamb brains, cooked	159.7	0.03	0.01	0.70	HIGH	HIGH
Offal	Pork brains, braised	160.9	0.03	0.01	0.70	HIGH	HIGH
Offal	Calf's brains, cooked	160.5	0.03	0.01	0.70	HIGH	HIGH
Offal	Heart and others, cooked	162.9	0.01	0.05	0.03		SOURCE
Offal	Beef heart, cooked	162.9	0.01	0.05	0.03		SOURCE
Offal	Calf's heart, cooked	162.9	0.01	0.05	0.03		SOURCE
Offal	Liver, others, cooked	151.9	0.05	0.13	0.09	SOURCE	HIGH
Offal	Lamb's liver, cooked	162.4	0.05	0.13	0.09	SOURCE	HIGH
Offal	Heifer's liver, cooked	151.9	0.05	0.13	0.09	SOURCE	HIGH
Offal	Chicken liver, cooked	169.2	0.05	0.08	0.12	SOURCE	HIGH
Offal	Gizzard	159.3	0.04	0.02	0.05		SOURCE
Offal	Calf's tongue, raw	135.1	0.05	0.05	0.03		SOURCE
Offal	Pig kidney, raw	92.6	0.02	0.02	0.03		SOURCE
Appetizers	Toast, large, garnished	362.0	0.18	0.13	0.24	SOURCE	HIGH
Appetizers	Toast, small, garnished	362.0	0.18	0.13	0.24	SOURCE	HIGH
Hot beverages	Malt and barley drinks, plain	92.9	0.30	0.00	0.00	SOURCE	SOURCE
Shellfish, seafood	Periwinkle, cooked	135.2	0.00	0.10	0.10	SOURCE	HIGH
Shellfish, seafood	Shrimp kebabs	259.2	0.07	0.10	0.06		SOURCE
Shellfish, seafood	Whelk, cooked	83.2	0.00	0.10	0.10	HIGH	HIGH
Shellfish, seafood	Squid / octopus / cuttlefish, raw	89.4	0.00	0.17	0.33	HIGH	HIGH
Shellfish, seafood	Cockles, cooked	102.2	0.00	0.15	0.15	HIGH	HIGH
Shellfish, seafood	Coquille Saint-Jacques, raw	87.1	0.00	0.23	0.23	HIGH	HIGH
Shellfish, seafood	Crab, cooked	98.4	0.01	0.25	0.22	HIGH	HIGH
Shellfish, seafood	Crab, canned	97.6	0.01	0.15	0.12	HIGH	HIGH
Shellfish, seafood	Shrimp, cooked	100.7	0.01	0.20	0.12	HIGH	HIGH
Shellfish, seafood	Pink shrimp, cooked	100.7	0.01	0.20	0.12	HIGH	HIGH
Shellfish, seafood	Gamba prawns, cooked	100.7	0.01	0.20	0.12	HIGH	HIGH
Shellfish, seafood	Lobster, cooked	93.5	0.01	0.20	0.12	HIGH	HIGH
Shellfish, seafood	Oysters, raw	67.9	0.01	0.12	0.17	HIGH	HIGH
Shellfish, seafood	Spiney lobster, raw	90.7	0.01	0.20	0.12	HIGH	HIGH
Shellfish, seafood	Prawns, raw	90.7	0.01	0.20	0.12	HIGH	HIGH
Shellfish, seafood	Mussels, cooked in water	116.6	0.00	0.20	0.30	HIGH	HIGH
Shellfish, seafood	Mussels, canned	116.6	0.00	0.20	0.30	HIGH	HIGH
Shellfish, seafood	Palourde clams, raw	76.6	0.00	0.15	0.15	HIGH	HIGH
Shellfish, seafood	Seafood platter	83.7	0.01	0.12	0.17	HIGH	HIGH
Shellfish, seafood	Whole prairie clams, raw	76.6	0.00	0.15	0.15	HIGH	HIGH
Shellfish, seafood	Crabcake, cooked	98.4	0.01	0.25	0.22	HIGH	HIGH
Flour	Soy flour	381.2	1.35	0.00	0.00	SOURCE	SOURCE
Dried fruit	Walnuts	674.2	7.00	0.00	0.00	HIGH	HIGH
Hors d'oeuvres	Avocado with shrimp, unseasoned	134.1	0.07	0.04	0.02		SOURCE
Hors d'oeuvres	Caviar	253.0	0.02	1.75	2.45	HIGH	HIGH
Hors d'oeuvres	Herring, for salad, unseasoned	148.0	0.03	0.62	0.68	HIGH	HIGH
Hors d'oeuvres	Mousseline of crab	186.2	0.11	0.12	0.10	SOURCE	HIGH
Hors d'oeuvres	Mousseline of shrimp	187.2	0.11	0.09	0.06	SOURCE	SOURCE
Hors d'oeuvres	Fish eggs, canned, salted	116.8	0.01	1.00	1.26	HIGH	HIGH
Hors d'oeuvres	Eggs in aspic with salmon	138.7	0.05	0.16	0.36	HIGH	HIGH
Hors d'oeuvres	Tarama	593.4	0.07	0.35	0.44	SOURCE	HIGH
Milk	Eggnog	123.7	0.04	0.00	0.05		SOURCE
Fats and oils	Rapeseed oil	899.1	10.00	0.00	0.00	HIGH	HIGH
Fats and oils	Walnut oil	899.1	12.00	0.00	0.00	HIGH	HIGH
Fats and oils	Soy oil	899.1	7.00	0.00	0.00	HIGH	HIGH
Eggs	Yolks, raw	350.3	0.22	0.01	0.40	SOURCE	HIGH
Eggs	Boiled egg	146.1	0.06	0.00	0.10		SOURCE
Eggs	Fried egg	185.3	0.06	0.00	0.10		SOURCE
Eggs	Scrambled egg	218.6	0.06	0.00	0.10		SOURCE
Eggs	Raw egg	145.7	0.06	0.00	0.10		SOURCE
Eggs	Hard boiled egg	145.7	0.06	0.00	0.10		SOURCE
Eggs	Poached egg	146.1	0.06	0.00	0.10		SOURCE
Eggs	Omelette, plain	172.5	0.06	0.00	0.10		SOURCE

FAMILY	FOOD	KCAL	ALA	EPA	DHA	RNI THRESH HOLD	Eur. Reg Threshold
Exotic dishes	Accra	241.7	0.04	0.03	0.07		SOURCE
Exotic dishes	Brik pastry with filling	190.6	0.05	0.04	0.04		SOURCE
Exotic dishes	Salmon carpaccio	192.1	0.13	0.62	1.24	HIGH	HIGH
Exotic dishes	Couscous with fish	112.3	0.04	0.09	0.16	HIGH	HIGH
Exotic dishes	Shrimp, Chinese style	129.2	0.04	0.05	0.04		SOURCE
Exotic dishes	Paella	126.7	0.18	0.04	0.03		SOURCE
Exotic dishes	Spring rolls	58.8	0.01	0.04	0.03		SOURCE
Exotic dishes	Fish tagine	71.4	0.03	0.30	0.08	HIGH	HIGH
Commercial dishes	Fish and starchy foods	126.4	0.03	0.05	0.11	SOURCE	HIGH
Commercial dishes	Fish and green vegetables	78.7	0.05	0.05	0.11	HIGH	HIGH
Traditional dishes	Bouillabaisse	121.7	0.07	0.17	0.31	HIGH	HIGH
Traditional dishes	<i>Brandade de morue</i> [Salt cod dip]	266.2	0.15	0.07	0.14	SOURCE	HIGH
Traditional dishes	Carp, stuffed	242.0	0.21	0.20	0.17	HIGH	HIGH
Traditional dishes	Coulibiac de poisson	355.0	0.20	0.08	0.17		SOURCE
Traditional dishes	<i>Galette de sarrasin</i> [buckwheat crepes], filled	217.9	0.10	0.03	0.07		SOURCE
Traditional dishes	Tofu	120.4	0.45	0.00	0.00	SOURCE	SOURCE
Fish	Anchovies	160.0	0.05	0.50	0.75	HIGH	HIGH
Fish	Eel, baked	229.8	0.15	0.40	0.47	HIGH	HIGH
Fish	Atlantic seabass / seabass, raw	111.1	0.02	0.70	0.19	HIGH	HIGH
Fish	Monkfish, grilled	93.4	0.00	0.05	0.16	HIGH	HIGH
Fish	Pike, baked	94.1	0.02	0.05	0.12	HIGH	HIGH
Fish	Fish kebab	94.7	0.02	0.13	0.30	HIGH	HIGH
Fish	Cod, baked	97.4	0.00	0.06	0.12	HIGH	HIGH
Fish	Carp, baked	135.6	0.33	0.33	0.28	HIGH	HIGH
Fish	Plaice, steamed	94.0	0.01	0.16	0.16	HIGH	HIGH
Fish	Hake, raw	78.4	0.00	0.04	0.12	HIGH	HIGH
Fish	Haddock	77.1	0.00	0.04	0.12	HIGH	HIGH
Fish	Halibut, raw	111.2	0.04	0.12	0.50	HIGH	HIGH
Fish	Haddock, smoked	101.2	0.01	0.05	0.12	HIGH	HIGH
Fish	Herring, raw	203.0	0.04	0.92	1.00	HIGH	HIGH
Fish	Saithe, cooked	89.0	0.00	0.09	0.18	HIGH	HIGH
Fish	Flounder, steamed	91.0	0.01	0.16	0.16	HIGH	HIGH
Fish	Burbot, raw	77.9	0.01	0.09	0.15	HIGH	HIGH
Fish	Mackerel, baked	183.8	0.17	0.74	1.10	HIGH	HIGH
Fish	Mackerel, canned	208.0	0.10	0.70	1.00	HIGH	HIGH
Fish	Whiting, steamed	92.1	0.00	0.06	0.12	HIGH	HIGH
Fish	Cod, desalted, poached	138.1	0.00	0.10	0.20	HIGH	HIGH
Fish	Mullet, baked	143.3	0.05	0.20	0.40	HIGH	HIGH
Fish	Perch, baked	95.4	0.02	0.05	0.12	HIGH	HIGH
Fish	Breaded fish, fried	103.0	0.01	0.03	0.09	SOURCE	HIGH
Fish	Fish, unspecified	135.8	0.05	0.36	0.65	HIGH	HIGH
Fish	Skate, raw	73.0	0.00	0.06	0.20	HIGH	HIGH
Fish	Rockfish, raw	89.2	0.05	0.08	0.21	HIGH	HIGH
Fish	Dogfish, raw	135.0	0.05	0.35	0.55	HIGH	HIGH
Fish	Sardines in oil, canned	215.3	0.30	0.50	0.50	HIGH	HIGH
Fish	Sardines, fresh, raw	162.6	0.07	0.85	0.95	HIGH	HIGH
Fish	Salmon, raw	169.7	0.10	0.70	1.40	HIGH	HIGH
Fish	Salmon, steamed	179.5	0.11	0.77	1.54	HIGH	HIGH
Fish	Salmon, smoked	184.2	0.10	0.70	1.40	HIGH	HIGH
Fish	Sole, steamed	69.8	0.00	0.16	0.21	HIGH	HIGH
Fish	Surimi	83.8	0.01	0.12	0.20	HIGH	HIGH
Fish	Tuna, plain, canned	116.8	0.01	0.05	0.20	HIGH	HIGH
Fish	Bluefin tuna, baked	176.3	0.02	0.36	1.14	HIGH	HIGH
Fish	Trout, baked	125.4	0.03	0.19	0.47	HIGH	HIGH
Fish	Turbot, raw	95.1	0.01	0.10	0.30	HIGH	HIGH
Dietetic products	Fish oil	899.1	2.00	15.00	10.00	HIGH	HIGH
Sauces and condiments	Mustard	134.0	1.50	0.00	0.00	HIGH	HIGH
Snacks	Fish in puff pastry	355.0	0.20	0.08	0.17		SOURCE
Snacks	<i>Pan bagna</i> [French stick sandwich]	171.6	0.09	0.02	0.06		SOURCE
Snacks	<i>Pissaladière</i>	196.9	0.09	0.05	0.08		SOURCE
Snacks	Tuna salad sandwich	168.0	0.02	0.02	0.07		SOURCE
Snacks	Salmon sandwich	231.0	0.10	0.32	0.63	HIGH	HIGH
Snacks	Salmon pie	268.8	0.15	0.31	0.64	HIGH	HIGH
Snacks	Seafood pie	235.9	0.11	0.07	0.09		SOURCE
Soups	Fish soup	60.2	0.03	0.11	0.21	HIGH	HIGH
Meats	Horse, steak tartare	164.3	0.33	0.02	0.07		SOURCE

Table 6. CIQUAL foods eligible for bearing claims [4] and [5] (UFA and PUFA), and different omega-6 / omega-3 ratio values. KCAL, energy (kcal) ; TFA, total fatty acids (g/100g); MUFA, monounsaturated fatty acids (g/100g); PUFA, polyunsaturated fatty acids (g/100g). CIQUAL 2008 data, 165 foods out of 1351.

FAMILY	FOOD	KCAL	TFA	MUFA	PUFA	Claim		omega-6 / omega-3	
						[4]	[5]	S(n-6) / S(n-3)	LA / ALA
Other animal fats and oils	Goose fat	896	95.4	57.1	11.0		HIGH	7.8	
Other animal fats and oils	Fish oil	899	90.6	36.5	30.5		HIGH		
Other animal fats and oils	Cod liver oil	899	81.6	40.8	21.9		HIGH	0.1	2.1
Biscuits, sweet	Wafers with fillings other than fruits (chocolate, vanilla, hazelnut, etc.)	486	21.6	0.5	21.0	HIGH	HIGH	0.6	64.3
Non-alcoholic beverages	Tonyu (soy drink), plain	39	1.7	0.4	1.1	HIGH	HIGH		
Bouillons ready to eat	Chicken bouillon, dehydrated, reconstituted	8	0.4	0.2	0.2		HIGH		
Bouillons ready to eat	Meat and vegetable bouillon	5	0.2	0.1	0.1		HIGH		
Bouillons ready to eat	Vegetable bouillons, dehydrated, reconstituted	4	0.2	0.1	0.1		HIGH		
Meat products	Cooked ham	105	3.2	2.3	0.6		HIGH		
Chocolate and chocolate products	Chocolate hazelnut spread	510	27.4	15.7	4.7		HIGH	5.5	17.3
Dietary supplements	Soy lecithin	802	55.2	5.0	36.4	HIGH	HIGH		
Non-chocolate confectionery	Nougat or torrone	486	26.6	19.1	5.3		HIGH		
Unprocessed shellfish and molluscs	Squid or Squid Roman Style (fritter)	254	9.1	3.3	3.7		HIGH		
Unprocessed shellfish and molluscs	Crab or Crab cake, cooked in water	127	4.2	1.8	1.6		HIGH		1.0
Products for special nutritional use	Meal replacement, low calorie, liquid, all flavours	82	2.3	0.7	1.3		HIGH		
Products for special nutritional use	Meal replacement, low calorie, reconstituted powder with skim milk, milk-shake type, all flavours	86	2.3	0.7	1.3		HIGH		
Milk-based desserts, fresh or UHT	Chocolate cream dessert, canned	136	3.8	1.7	1.4		HIGH		
Desserts and ices	Cultured soy dessert, plain, refrigerated section	50	2.2	0.6	1.2	HIGH	HIGH		
Cakes and pastries	Baklava or baklava (Middle Eastern dessert with almonds and syrup)	459	23.4	13.6	5.2		HIGH		
Cakes and pastries	Soft macaroons filled with jam or cream	427	17.3	12.4	3.4		HIGH		
Nuts and seeds	Pecan nuts	703	68.6	40.8	21.6		HIGH		
Nuts and seeds	Macadamia nuts	736	72.5	58.9	1.5		HIGH		
Nuts and seeds	Walnuts, dried, shelled	659	64.4	12.2	46.4	HIGH	HIGH	4.7	
Nuts and seeds	Hazelnuts	612	56.8	45.9	6.5		HIGH		
Nuts and seeds	Pinenuts	652	59.4	23.5	26.3		HIGH		
Nuts and seeds	Brazilnuts	676	62.4	23.4	23.4		HIGH		
Nuts and seeds	Almonds	612	50.1	35.3	10.5		HIGH		
Nuts and seeds	Sunflower seeds	623	50.0	13.6	30.2	HIGH	HIGH		
Nuts and seeds	Sesame seeds	534	47.6	18.8	21.8	HIGH	HIGH		
Nuts and seeds	Peanuts or Groundnuts	604	47.1	24.6	15.6		HIGH		
Nuts and seeds	Pistachios, roasted, salted	586	46.3	32.8	7.4		HIGH		
Nuts and seeds	Cashew nuts, salted	611	48.1	28.9	9.1		HIGH		
Nuts and seeds	Peanut butter or Ground nut butter	603	47.8	23.9	13.9		HIGH	420.0	
Nuts and seeds	Peanuts, roasted, salted	568	45.1	18.7	18.8		HIGH	373.6	
Nuts and seeds	Dried fruits and seeds (average)	456	29.9	14.6	11.2		HIGH		
Nuts and seeds	Mixed nuts and dried fruits snack	428	28.3	15.7	7.8		HIGH		
Nuts and seeds	Almond paste, pre-packaged	404	17.1	12.0	3.7		HIGH	184.0	
Herbs, spices and condiments	Cumin seed	407	18.8	14.0	3.3		HIGH		
Herbs, spices and condiments	Coriander seed	288	16.3	13.6	1.8		HIGH		
Herbs, spices and condiments	Curry, powdered	275	10.4	5.6	2.6		HIGH		
Vegetable oils and fats	Rapeseed oil	900	96.2	58.9	29.7		HIGH	2.5	2.2
Vegetable oils and fats	Oil blend (mixed oils)	899	97.8	42.4	44.9	HIGH	HIGH	14.5	39.2
Vegetable oils and fats	Walnut oil	899	95.3	17.0	69.0	HIGH	HIGH	4.6	4.6
Vegetable oils and fats	Grapeseed oil	900	95.6	18.2	67.8	HIGH	HIGH	271.1	224.3
Vegetable oils and fats	Vegetable oil (average)	899	98.0	57.6	27.7		HIGH		
Vegetable oils and fats	Sunflower oil	900	95.9	20.0	64.4	HIGH	HIGH		1282.0
Vegetable oils and fats	Virgin olive oil	898	99.3	77.2	7.0		HIGH	9.0	15.2
Vegetable oils and fats	Corn oil	899	95.1	26.1	56.7	HIGH	HIGH		62.1
Vegetable oils and fats	Soy oil	899	95.1	20.5	60.5	HIGH	HIGH	7.3	7.2
Vegetable oils and fats	Peanut oil	899	95.1	45.2	30.1		HIGH		
Vegetables	Mushroom, sautéed	167	15.5	4.0	9.4	HIGH	HIGH		
Vegetables	Avocado fresh, pulp	137	13.1	9.8	1.5		HIGH		
Vegetables	Vegetables, mixed frozen	104	4.4	0.4	2.8	HIGH	HIGH		
Pulses	Tofu	125	7.4	1.3	5.2	HIGH	HIGH		
Margarines and lipids of mixed origin	Margarine 80% fat, sunflowerseed, hard	736	78.0	17.0	41.6	HIGH	HIGH	218.0	14.9
Margarines and lipids of mixed origin	Fat spread 55-60% fat, low fat, rich in omega 3 and 6	521	57.1	21.2	21.8		HIGH	2.1	
Margarines and lipids of mixed origin	Fat spread 35% fat, light, fortified with sterols/stanols	331	34.5	9.0	17.5	HIGH	HIGH		
Pizzas, crêpes and savoury pies	Pizza (average)	219	7.8	5.1	0.6		HIGH		
Cereal or pasta dishes	Paella	133	3.9	1.4	1.6		HIGH	5.4	
Cereal or pasta dishes	Pastas a la bolognese (spaghetti, tagliatelles)	116	4.2	1.9	1.0		HIGH		
Cheese dishes	Cheese fried with ham	228	10.3	3.2	4.2		HIGH		95.3
Vegetable dishes	Vegetable fritters, home made (average)	154	9.4	5.2	2.6		HIGH		
Vegetable dishes	Vegetable cutlet or soy steak	156	6.3	5.0	0.7		HIGH	20.5	
Vegetable dishes	Tomatoes provençales	84	3.4	2.2	0.7		HIGH		
Vegetable dishes	Ratatouille niçoise	60	2.8	1.5	0.5		HIGH	7.3	
Fish dishes	Salmon carpaccio	238	17.5	10.0	3.8		HIGH		
Fish dishes	Shrimp fritters	275	14.3	10.6	0.4		HIGH		
Fish dishes	Cod Accra	238	11.4	4.5	5.0		HIGH	15.8	
Fish dishes	Fish kebabs	126	5.0	3.2	0.8		HIGH		
Fish dishes	Paella, frozen	139	4.9	1.6	2.3		HIGH		
Fish dishes	Shrimp kebabs	104	3.9	2.6	0.6		HIGH		
Meat or poultry dishes	Veal cutlet, breaded, cooked	268	13.3	7.0	3.9		HIGH		
Meat or poultry dishes	Beef kebabs	207	13.1	3.7	6.7	HIGH	HIGH		
Meat or poultry dishes	Mixed meat kebabs	203	12.8	3.4	6.9	HIGH	HIGH		
Meat or poultry dishes	Chicken kebabs	200	12.4	3.2	7.2	HIGH	HIGH		
Meat or poultry dishes	Chicken nuggets	215	8.0	4.9	1.1		HIGH	10.1	
Meat or poultry dishes	Basque chicken and rice	90	4.2	2.7	0.9		HIGH		
Meat or poultry dishes	Osso buco à la Milanese	99	3.8	2.6	0.4		HIGH		
Meat or poultry dishes	Chicken curry	119	3.9	2.1	0.8		HIGH		
Mixed dishes	Meat, chicken or fish fritter, homemade	236	12.6	6.8	3.0		HIGH		

Table 7. SU.VI.MAX foods eligible for bearing claims [4] and [5] (UFA and PUFA), and different omega-6 / omega-3 ratio values. KCAL, energy (kcal) ; TFA, total fatty acids (g/100g); MUFA, monounsaturated fatty acids (g/100g) ; PUFA, polyunsaturated fatty acids (g/100g). SU.VI.MAX data, 121 foods out of 923.

FAMILY	FOOD	KCAL	TFA	MUFA	PUFA	Claim		omega-6 / omega-3	
						[4]	[5]	S(n-6) / S(n-3)	LA / ALA
Appetizers	Potato chips, salted	516	34.0	16.5	10.0		HIGH	47.5	47.5
Appetizers	Black olives, in brine	294	28.5	20.9	3.4		HIGH	11.1	11.1
Appetizers	Chinese chips, salted	478	26.3	12.8	7.7		HIGH	48.7	48.7
Appetizers	Cornchips, salted	478	26.3	12.8	7.7		HIGH	48.7	48.7
Appetizers	Green olives, in brine	118	11.9	8.7	1.4		HIGH	11.0	11.0
Biscuits	Wafers	438	21.2	13.3	4.0		HIGH	22.1	40.1
Hot beverages	Malt and barley drink, plain	93	4.7	2.7	1.5		HIGH	3.3	3.3
Delicatessen	Foie gras	448	42.0	25.0	5.0		HIGH	10.2	20.0
Shellfish, seafood	Shrimp kebabs	259	19.5	10.3	3.6		HIGH	12.8	44.3
Desserts	Middle Eastern pastries	450	28.7	16.9	5.9		HIGH	11.4	11.4
Flour	Soybean flour	381	19.2	4.2	12.5	HIGH	HIGH	8.1	8.1
Nuts and seeds	Walnuts	674	61.0	11.6	44.2	HIGH	HIGH	5.2	5.2
Nuts and seeds	Hazelnuts, unsalted	646	59.1	48.7	5.8		HIGH	56.0	56.0
Nuts and seeds	Hazelnuts, salée	646	59.1	48.7	5.8		HIGH	56.0	56.0
Nuts and seeds	Almonds, unsalted	576	51.3	36.6	10.5		HIGH	37.8	37.8
Nuts and seeds	Brazil nuts, unsalted	660	63.2	23.0	24.1		HIGH	400.0	400.0
Nuts and seeds	Brazil nuts, salted	660	63.2	23.0	24.1		HIGH	400.0	400.0
Nuts and seeds	Almonds, salted	576	51.1	36.3	10.6		HIGH	37.8	37.8
Nuts and seeds	Pistachios, salted	599	50.4	35.7	8.0		HIGH	25.7	25.7
Nuts and seeds	Sunflower, seeds	597	48.2	9.7	33.2	HIGH	HIGH	550.0	550.0
Nuts and seeds	Peanuts, roasted, slated	597	48.0	24.5	15.0		HIGH	145.0	145.0
Nuts and seeds	Peanuts, unsalted	590	48.0	24.5	15.0		HIGH	145.0	145.0
Nuts and seeds	Cashew nuts, salted	597	46.9	28.9	8.3		HIGH	48.1	48.1
Nuts and seeds	Lupini [ground nuts]	78	2.8	1.6	0.8		HIGH	4.6	4.6
Hors d'oeuvres	Taramasalata	593	59.3	13.4	38.7	HIGH	HIGH	42.2	535.4
Hors d'oeuvres	Celeriac remoulade	303	30.9	15.0	11.3		HIGH	42.7	45.5
Hors d'oeuvres	Brawn vinaigrette	331	29.7	14.2	7.7		HIGH	24.4	27.7
Hors d'oeuvres	Avocado vinaigrette	231	23.6	13.3	6.3		HIGH	37.8	37.8
Hors d'oeuvres	Caviar	253	15.5	6.0	5.5		HIGH	0.1	4.0
Hors d'oeuvres	Avocado, other, plain	145	14.3	9.5	1.9		HIGH	22.5	22.5
Hors d'oeuvres	Avocado with crab, unseasoned	133	11.5	7.6	1.6		HIGH	11.2	20.3
Hors d'oeuvres	Avocado with shrimp, unseasoned	134	11.5	7.5	1.6		HIGH	10.4	20.1
Hors d'oeuvres	Avocado puree (guacamole), unseasoned	109	10.1	6.7	1.4		HIGH	21.3	21.3
Hors d'oeuvres	Potatoes in oil	136	6.8	3.3	2.5		HIGH	49.0	49.0
Hors d'oeuvres	Marinated mushrooms, Greek-style	73	6.1	4.5	0.7		HIGH	11.4	11.4
Hors d'oeuvres	Fish eggs, in cans, salted	117	5.0	1.4	2.6	RICH	HIGH	0.1	3.0
Vegetables	Ratatouille	34	1.9	1.4	0.2		HIGH	6.0	6.0
Fats and oils	Rapeseed oil	899	96.2	60.0	30.0		HIGH	2.0	2.0
Fats and oils	Walnut oil	899	96.3	17.0	70.0	RICH	HIGH	4.8	4.8
Fats and oils	Sunflower oil	899	96.6	21.5	63.5	RICH	HIGH	630.0	630.0
Fats and oils	Oil blend	899	95.7	36.2	48.0	RICH	HIGH	38.8	38.8
Fats and oils	Corn oil	899	96.3	26.0	58.0	RICH	HIGH	56.0	56.0
Fats and oils	Grapeseed oil	899	95.5	15.6	67.7	RICH	HIGH	268.0	268.0
Fats and oils	Oil, unspecified	899	95.8	46.7	35.5		HIGH	49.2	49.2
Fats and oils	Soy oil	899	95.1	20.5	60.5	RICH	HIGH	7.6	7.6
Fats and oils	Olive oil	899	95.2	72.0	8.7		HIGH	8.8	8.8
Fats and oils	Peanut oil	899	95.5	55.5	20.2		HIGH	200.0	200.0
Fats and oils	Goose fat	896	95.4	57.1	11.0		HIGH	7.0	7.8
Fats and oils	Margarine	747	81.0	46.5	16.0		HIGH	15.0	15.0
Fats and oils	Chocolate/hazelnut spread	632	68.5	24.5	26.5		HIGH	25.0	25.0
Fats and oils	Peanut butter	596	48.0	24.8	14.5		HIGH	140.7	140.7
Exotic dishes	Samosa	224	12.4	5.9	4.5		HIGH	37.0	39.3
Exotic dishes	Salmon carpaccio	192	12.2	6.4	3.5		HIGH	0.3	5.0
Exotic dishes	Egg roll/ nem	211	12.5	6.7	2.3		HIGH	36.1	53.3
Exotic dishes	Brik pastry, filled	191	11.3	3.3	5.0		HIGH	34.7	94.4
Exotic dishes	Accra	242	10.0	5.5	2.3		HIGH	14.0	53.0
Exotic dishes	Peking duck	189	9.2	4.9	1.8		HIGH	12.4	17.0
Exotic dishes	Steamed Chinese specialty	172	8.3	4.7	1.8		HIGH	20.3	83.0
Exotic dishes	Chinese dish	132	7.1	3.4	2.0		HIGH	20.7	31.2
Exotic dishes	Shrimp, Chinese -style	129	5.8	2.7	2.1		HIGH	14.7	48.5
Exotic dishes	Chicken curry	146	5.7	2.9	1.2		HIGH	12.4	17.0
Exotic dishes	Paella	127	4.2	2.2	1.0		HIGH	2.7	3.8
Exotic dishes	Chicken, Chinese-style	126	3.9	1.9	1.3		HIGH	24.9	29.5
Exotic dishes	Pork, Chinese-style	126	3.6	1.7	1.1		HIGH	30.6	35.3
Exotic dishes	Fish tagine	71	3.1	1.9	0.7		HIGH	0.4	5.3
Traditional dishes	Fondue bourguignonne	321	25.1	12.2	8.4		HIGH	38.2	42.5
Traditional dishes	Brandade de morue [Salt cod dip]	266	17.0	12.5	1.8		HIGH	3.3	8.6
Traditional dishes	Stuffed carp	242	13.3	3.8	7.6	HIGH	HIGH	11.2	32.0
Traditional dishes	Veal outlets	228	13.3	4.6	5.2		HIGH	50.0	82.3
Traditional dishes	Bouillabaisse	122	7.1	4.5	1.2		HIGH	0.9	7.4
Traditional dishes	Tofu	120	6.1	1.4	3.9	HIGH	HIGH	7.3	7.3
Fish	Mackerel, in cans	208	14.9	8.2	2.5		HIGH	0.2	3.0
Fish	Fish cakes, fried	271	13.3	7.5	2.9		HIGH	22.8	90.3
Fish	Sardines in oil, in cans	215	13.0	5.2	5.0		HIGH	2.7	11.7
Fish	Eels, baked	230	13.3	7.1	2.6		HIGH	0.8	5.5
Fish	Salmon, smoked	184	10.3	4.5	3.3		HIGH	0.2	3.5

FAMILY	FOOD	KCAL	TFA	MUFA	PUFA	Claim		omega-6 / omega-3	
						[4]	[5]	S(n-6) / S(n-3)	LA / ALA
Fish	Salmon, steamed	180	9.5	3.8	3.7		HIGH	0.2	3.5
Fish	Salmon, raw	170	9.0	3.6	3.5		HIGH	0.2	3.5
Fish	Dogfish, raw	135	6.0	2.8	1.5		HIGH	0.3	2.4
Fish	Fish kebabs	95	5.1	1.4	2.8	HIGH	HIGH	4.6	112.0
Fish	Carp, baked	136	5.2	2.5	1.5		HIGH	0.4	0.7
Fish	Fish, unspecified	136	5.0	2.1	1.7		HIGH	0.3	5.6
Fish	Atlantic seabass/ seabass, raw	111	3.6	1.8	1.2		HIGH	0.1	1.0
Potatoes	Potato, chips, salted	516	34.0	16.5	10.0		HIGH	47.5	47.5
Potatoes	Potato, fried, unsalted	270	13.8	7.3	2.5		HIGH	N/A	N/A
Potatoes	Potato balls [new potatoes], precooked, salted	137	6.9	4.0	1.5		HIGH	144.0	144.0
Potatoes	Potato, sautéed, salted	112	4.1	2.1	1.2		HIGH	28.0	28.0
Nutritional products	Fish oil	899	96.0	34.0	34.0		HIGH	0.1	1.5
Nutritional products	Wheat germ	323	9.4	1.6	6.0		HIGH	11.0	11.0
Sugar-based products	Almond paste	482	24.1	17.2	4.9		HIGH	36.8	36.8
Sauces and condiments	Aioli	810	85.0	63.9	7.9		HIGH	8.8	9.0
Sauces and condiments	Mayonnaise	762	80.0	38.8	29.2		HIGH	42.1	45.5
Sauces and condiments	Vinaigrette	664	70.5	34.3	26.1		HIGH	48.7	48.7
Sauces and condiments	Lemon vinaigrette	659	69.1	33.5	25.5		HIGH	55.6	55.6
Sauces and condiments	Low fat mayonnaise	402	41.6	20.0	15.0		HIGH	35.4	40.9
Sauces and condiments	Low fat vinaigrette	334	35.3	17.2	13.1		HIGH	48.7	48.7
Sauces and condiments	Curry, powder	287	11.7	6.5	2.0		HIGH	17.0	17.0
Sauces and condiments	Mustard	134	9.4	4.6	3.8		HIGH	1.5	1.5
Sauces and condiments	Harissa, spicey sauce	72	4.2	1.7	1.7		HIGH	10.0	10.0
Sauces and condiments	Tomato sauce	58	3.2	2.4	0.4		HIGH	10.7	10.7
Snacks	Chicken nugget	304	19.5	8.0	7.8		HIGH	78.8	107.4
Snacks	Falafel sandwich)	251	12.2	5.7	4.7		HIGH	45.2	45.2
Snacks	Grilled French ham and cheese sandwich, Provençal-style with tomato	268	12.5	3.6	5.5		HIGH	56.1	58.4
Snacks	Grilled French ham and cheese sandwich, Hawaiian-style with pineapple	238	10.9	2.7	5.0		HIGH	68.7	68.7
Snacks	Tunisian tuna sandwich	234	8.6	4.4	2.7		HIGH	14.1	27.4
Snacks	French stick sandwich	172	6.7	4.3	1.1		HIGH	4.9	9.6
Soups	Fish soup	60	2.7	1.4	0.7		HIGH	0.6	7.3
Soups	Gazpacho	50	2.1	1.4	0.3		HIGH	8.3	8.3
Soups	Tomato soup	37	1.5	1.1	0.2		HIGH	14.0	14.0
Meats	Horse, steak tartare	164	9.9	4.6	2.5		HIGH	4.3	5.6
Rolls	Regular croissant	405	16.9	9.7	3.3		HIGH	15.5	15.5
Rolls	Waffle	179	6.1	3.0	1.3		HIGH	19.4	29.3
Poultry, game	Duck /goose confit	331	26.8	15.5	3.7		HIGH	8.4	9.6
Poultry, game	Capon	214	11.2	5.4	2.5		HIGH	12.6	16.2
Poultry, game	Skinless chicken, boiled	229	11.2	5.4	2.5		HIGH	12.6	16.2
Poultry, game	Duck, duck breast, roasted	190	9.4	4.9	1.8		HIGH	12.4	17.0
Poultry, game	Duck, roast	190	9.4	4.9	1.8		HIGH	12.4	17.0
Poultry, game	Duckling, roasted	190	9.4	4.9	1.8		HIGH	12.4	17.0
Poultry, game	Cockerel	161	5.9	2.9	1.3		HIGH	10.5	15.0
Poultry, game	Chicken, roasted	161	5.9	2.9	1.3		HIGH	10.5	15.0
Yogurts	Soy yogurt	45	1.8	0.4	1.1	HIGH	HIGH	6.0	6.0

Table 7a. SU.VI.MAX foods eligible for bearing claims [3], [4] and [5] (MUFA, UFA and PUFA), and different omega-6 / omega-3 ratio values. KCAL, energy (kcal); TFA, total fatty acids (g/100g); SFA, saturated fatty acids (g/100g) ; MUFA, monounsaturated fatty acids (g/100g); PUFA, polyunsaturated fatty acids (g/100g). Shown in grey, foods with a value lower than five for the S(n-6)/S(n-3) ratio or LA/ALA. SU.VI.MAX, data, 212 foods out of 923.

FAMILY	FOOD	KCAL	TFA	SFA	MUFA	PUFA	Claim			omega-6/omega-3	
							[3]	[4]	[5]	S(n-6) / S(n-3r)	LA/ALA
Offal	Beef tongue, cooked	257.9	17.00	7.70	8.20	1.10	HIGH			3.7	10.0
Offal	<i>Tripoux</i>	214.7	15.59	5.98	7.25	2.36	HIGH			13.3	17.4
Appetizers	Chinese chips, salted	477.7	26.30	5.80	12.80	7.70	HIGH		HIGH	48.7	48.7
Appetizers	Corn chips, salted	477.7	26.30	5.80	12.80	7.70	HIGH		HIGH	48.7	48.7
Appetizers	Potato chips, salted	515.6	34.00	7.50	16.50	10.00	HIGH		HIGH	47.5	47.5
Appetizers	Mini- <i>boudin</i> [blood pudding] sausage, cooked, cuit	410.0	35.30	13.40	17.30	4.60	HIGH			13.7	18.4
Appetizers	Mini-sausage, cooked	308.0	26.60	10.30	12.80	3.50	HIGH			13.8	18.8
Appetizers	Black olive, in brine	294.0	28.50	4.20	20.90	3.40	HIGH		HIGH	11.1	11.1
Appetizers	Green olive, in brine	117.7	11.90	1.80	8.70	1.40	HIGH		HIGH	11.0	11.0
Biscuits	Wafer	437.8	21.20	3.96	13.26	3.98	HIGH		HIGH	22.1	40.1
Biscuits	Madeleine	423.3	22.24	8.83	10.14	3.27	HIGH			22.6	27.6
Hot beverages	Malt and barley drink, plain	92.9	4.70	0.50	2.70	1.50	HIGH		HIGH	3.3	3.3
Delicatessen	Andouille chitterling sausage, raw	234.4	17.20	6.60	8.00	2.60	HIGH			13.4	17.7
Delicatessen	Andouillette chitterling sausage, raw	234.4	17.20	6.60	8.00	2.60	HIGH			13.4	17.7
Delicatessen	Smoked bacon, cooked	200.2	14.05	5.55	6.60	1.90	HIGH			13.4	18.3
Delicatessen	White sausage [white pudding], cooked	242.0	18.70	6.80	8.90	3.00	HIGH			12.7	17.1
Delicatessen	Black pudding [blood sausage], raw	323.6	28.40	11.40	13.00	4.00	HIGH			13.7	18.4
Delicatessen	Sausage meat, raw	324.4	28.40	11.40	13.00	4.00	HIGH			13.7	18.4
Delicatessen	Chipolata sausage, raw	344.4	30.20	11.50	14.50	4.20	HIGH			13.7	18.4
Delicatessen	Chorizo dry sausage	454.0	38.00	16.00	17.50	4.50	HIGH			13.6	18.3
Delicatessen	<i>Foie gras</i>	448.0	42.00	12.00	25.00	5.00	HIGH		HIGH	10.2	20.0
Delicatessen	Brawn [head cheese]	205.4	13.50	4.90	6.80	1.80	HIGH			12.6	17.3
Delicatessen	Galantine	246.8	18.90	7.60	8.80	2.50	HIGH			12.9	17.5
Delicatessen	Smoked ham	191.9	9.00	3.20	4.50	1.30	HIGH			11.6	17.3
Delicatessen	Dry ham, Bayonne, Parma types	191.9	9.00	3.20	4.50	1.30	HIGH			11.6	17.3
Delicatessen	Bacon chunks	297.0	23.20	9.20	11.00	3.00	HIGH			13.4	15.0
Delicatessen	Merguez sausage, raw	300.4	24.60	10.80	12.20	1.60	HIGH			4.4	4.8
Delicatessen	Mortadella	322.6	27.60	10.80	13.30	3.50	HIGH			13.8	18.8
Delicatessen	Pâté / other terrine	327.8	27.50	11.00	13.00	3.50	HIGH			13.8	18.8
Delicatessen	Pâté country style	327.8	27.50	11.00	13.00	3.50	HIGH			13.8	18.8
Delicatessen	Pâté, pork liver	374.0	34.30	14.00	15.80	4.50	HIGH			13.6	18.3
Delicatessen	Spread	435.5	39.56	15.96	18.14	5.46	HIGH			14.0	18.5
Delicatessen	Salami	458.8	40.10	16.20	18.60	5.30	HIGH			13.8	18.4
Delicatessen	Saveloy sausage	304.4	26.50	10.30	12.60	3.60	HIGH			13.8	18.8
Delicatessen	Frankfurter sausage	301.2	26.90	10.30	13.10	3.50	HIGH			13.8	18.8
Delicatessen	Morteaux sausage	319.8	28.00	10.60	13.20	4.20	HIGH			13.7	18.4
Delicatessen	Toulouse sausage	346.4	30.40	11.70	14.50	4.20	HIGH			13.7	18.4
Delicatessen	Dry sausage	426.6	32.90	12.90	15.50	4.50	HIGH			13.6	18.3
Delicatessen	Garlic sausage	314.8	27.10	10.40	13.20	3.50	HIGH			13.8	18.8
Delicatessen	Lyons sausage	401.0	31.50	12.30	14.70	4.50	HIGH			13.6	18.3
Delicatessen	Dry sausage	426.6	32.90	12.90	15.50	4.50	HIGH			13.6	18.3
Shellfish, seafood	Shrimp kebabs	259.2	19.51	5.58	10.34	3.59	HIGH		HIGH	12.8	44.3
Desserts	Middle Eastern pastry	449.8	28.74	5.93	16.90	5.91	HIGH		HIGH	11.4	11.4
Flour	Soy flour	381.2	19.20	2.50	4.20	12.50		HIGH	HIGH	8.1	8.1
Nuts and seeds	Almond, unsalted	575.5	51.30	4.20	36.60	10.50	HIGH		HIGH	37.8	37.8
Nuts and seeds	Almond, salted	575.5	51.10	4.20	36.30	10.60	HIGH		HIGH	37.8	37.8
Nuts and seeds	Peanut, roasted, salted	597.3	48.00	8.50	24.50	15.00	HIGH		HIGH	145.0	145.0
Nuts and seeds	Peanut, unsalted	590.1	48.00	8.50	24.50	15.00	HIGH		HIGH	145.0	145.0
Nuts and seeds	Lupini [ground nuts]	78.1	2.75	0.40	1.60	0.75				4.6	4.6
Nuts and seeds	Mixed dried fruits (with seeds)	405.1	22.92	7.40	12.71	2.81	HIGH			33.1	33.1
Nuts and seeds	Hazelnut, unsalted	646.0	59.10	4.60	48.70	5.80	HIGH		HIGH	56.0	56.0
Nuts and seeds	Hazelnut, salted	646.0	59.10	4.60	48.70	5.80	HIGH		HIGH	56.0	56.0
Nuts and seeds	Walnuts	674.2	61.00	5.20	11.60	44.20		HIGH	HIGH	5.2	5.2
Nuts and seeds	Cashew nuts, salted	597.4	46.90	9.70	28.90	8.30	HIGH		HIGH	48.1	48.1
Nuts and seeds	Brazil nuts, unsalted	660.0	63.20	16.10	23.00	24.10			HIGH	400.0	400.0
Nuts and seeds	Brazil nuts, salted	660.0	63.20	16.10	23.00	24.10			HIGH	400.0	400.0
Nuts and seeds	Pistachio nuts, salted	599.4	50.40	6.70	35.70	8.00	HIGH		HIGH	25.7	25.7
Nuts and seeds	Sunflower, seed	597.0	48.20	5.30	9.70	33.20		HIGH	HIGH	550.0	550.0
Hors d'oeuvres	Avocado with crab, unseasoned	133.5	11.45	2.33	7.55	1.57	HIGH		HIGH	11.2	20.3
Hors d'oeuvres	Other avocado, plain	145.4	14.30	2.90	9.50	1.90	HIGH		HIGH	22.5	22.5
Hors d'oeuvres	Avocado with shrimp, unseasoned	134.1	11.46	2.35	7.53	1.58	HIGH		HIGH	10.4	20.1
Hors d'oeuvres	Avocado vinaigrette	231.0	23.60	4.00	13.34	6.26	HIGH		HIGH	37.8	37.8
Hors d'oeuvres	Avocado, puréed (guacamole), unseasoned	108.7	10.05	2.04	6.66	1.35	HIGH		HIGH	21.3	21.3
Hors d'oeuvres	Caviar	253.0	15.50	4.00	6.00	5.50			HIGH	0.1	4.0
Hors d'oeuvres	Celeriac remoulade	303.0	30.87	4.61	14.95	11.31	HIGH		HIGH	42.7	45.5
Hors d'oeuvres	Mushrooms, marinated Greek-style	72.8	6.09	0.94	4.47	0.68	HIGH		HIGH	11.4	11.4
Hors d'oeuvres	Brawn vinaigrette	331.2	29.65	7.79	14.15	7.71	HIGH		HIGH	24.4	27.7
Hors d'oeuvres	Fish eggs, canned, salted	116.8	5.00	1.00	1.40	2.60		HIGH	HIGH	0.1	3.0
Hors d'oeuvres	Potatoes in oil	136.0	6.82	0.98	3.32	2.52	HIGH		HIGH	49.0	49.0
Hors d'oeuvres	Taramasalata	593.4	59.34	7.31	13.35	38.68		HIGH	HIGH	42.2	535.4

FAMILY	FOOD	KCAL	TFA	SFA	MUFA	PUFA	Claim			S(n-6) / S(n-3)	LA/ALA
							[3]	[4]	[5]		
Fats and oils	Goose fat	896.4	95.40	27.30	57.10	11.00	HIGH		HIGH	7.0	7.8
Fats and oils	Peanut oil	899.1	95.50	19.80	55.50	20.20	HIGH		HIGH	200.0	200.0
Fats and oils	Rapeseed oil	899.1	96.20	6.20	60.00	30.00	HIGH		HIGH	2.0	2.0
Fats and oils	Corn oil	899.1	96.30	12.30	26.00	58.00		HIGH	HIGH	56.0	56.0
Fats and oils	Walnut oil	899.1	96.30	9.30	17.00	70.00		HIGH	HIGH	4.8	4.8
Fats and oils	Grapeseed oil	899.1	95.50	12.20	15.60	67.70		HIGH	HIGH	268.0	268.0
Fats and oils	Soy oil	899.1	95.10	14.10	20.50	60.50		HIGH	HIGH	7.6	7.6
Fats and oils	Sunflower oil	899.1	96.60	11.60	21.50	63.50		HIGH	HIGH	630.0	630.0
Fats and oils	Olive oil	899.1	95.20	14.50	72.00	8.70	HIGH		HIGH	8.8	8.8
Fats and oils	Oil blend	899.1	95.70	11.50	36.20	48.00		HIGH	HIGH	38.8	38.8
Fats and oils	Oil, unspecified	899.1	95.82	13.70	46.66	35.46	HIGH		HIGH	49.2	49.2
Fats and oils	Margarine	746.9	81.00	18.50	46.50	16.00	HIGH		HIGH	15.0	15.0
Fats and oils	Margarine , low fat	378.3	39.80	13.30	18.50	8.00	HIGH			15.0	15.0
Fats and oils	Chocolate spread	632.0	68.50	17.50	24.50	26.50			HIGH	25.0	25.0
Fats and oils	Peanut butter	595.8	47.97	8.63	24.81	14.53	HIGH		HIGH	140.7	140.7
Eggs	Boiled egg	146.1	9.50	3.20	4.30	2.00	HIGH			9.8	26.7
Eggs	Raw egg	145.7	9.50	3.20	4.30	2.00	HIGH			9.8	26.7
Eggs	Hard boiled egg	145.7	9.50	3.20	4.30	2.00	HIGH			9.8	26.7
Eggs	Poached egg	146.1	9.50	3.20	4.30	2.00	HIGH			9.8	26.7
Eggs	Omelette, plain	172.5	11.70	4.10	5.30	2.30	HIGH			10.3	28.3
Pastas and rice	Ravioli, without sauce	174.9	8.01	3.50	4.10	0.41	HIGH			4.8	5.6
Exotic dishes	Accra	241.7	9.96	2.19	5.45	2.32	HIGH		HIGH	14.0	53.0
Exotic dishes	Beef curry	193.9	9.83	4.12	5.06	0.65	HIGH			5.1	6.0
Exotic dishes	Brik pastry, filled	190.6	11.31	3.04	3.32	4.95			HIGH	34.7	94.4
Exotic dishes	Peking duck	188.5	9.20	2.50	4.90	1.80	HIGH		HIGH	12.4	17.0
Exotic dishes	Salmon carpaccio	192.1	12.22	2.33	6.39	3.50	HIGH		HIGH	0.3	5.0
Exotic dishes	Chili <i>con carne</i>	120.2	6.68	2.23	3.56	0.89	HIGH			10.6	11.3
Exotic dishes	Couscous with meat	140.1	6.71	2.78	3.33	0.60	HIGH			6.2	6.9
Exotic dishes	Shrimp, Chinese-style	129.2	5.76	0.91	2.73	2.12			HIGH	14.7	48.5
Exotic dishes	Moussaka	133.9	9.42	3.49	4.45	1.48	HIGH			17.8	19.4
Exotic dishes	Osso buco	99.1	5.12	1.54	3.15	0.43	HIGH			5.5	6.6
Exotic dishes	Paella	126.7	4.19	1.02	2.17	1.00			HIGH	2.7	3.8
Exotic dishes	Egg rolls	211.4	12.48	3.51	6.65	2.32	HIGH		HIGH	36.1	53.3
Exotic dishes	Chinese dish	132.5	7.07	1.67	3.37	2.03	HIGH		HIGH	20.7	31.2
Exotic dishes	Pork, Chinese-style	125.5	3.59	0.73	1.73	1.13			HIGH	30.6	35.3
Exotic dishes	Chicken curry	145.8	5.70	1.56	2.91	1.23			HIGH	12.4	17.0
Exotic dishes	Chicken, Chinese-style	126.2	3.87	0.73	1.88	1.26			HIGH	24.9	29.5
Exotic dishes	Samosa	223.8	12.39	1.95	5.94	4.50	HIGH		HIGH	37.0	39.3
Exotic dishes	Steamed Chinese specialty	172.4	8.32	1.88	4.66	1.78	HIGH		HIGH	20.3	83.0
Exotic dishes	Tagine with meat	119.4	4.89	1.68	2.66	0.55	HIGH			5.9	7.0
Exotic dishes	Tagine with fish	71.4	3.11	0.51	1.90	0.70	HIGH		HIGH	0.4	5.3
Traditional dishes	Stuffed eggplant	105.5	7.65	2.51	3.49	1.65	HIGH			21.1	25.3
Traditional dishes	<i>Blanquette de veau</i> [veal stew in white sauce]	134.0	6.65	3.18	3.05	0.42	HIGH			4.3	5.4
Traditional dishes	<i>Boeuf bourguignon</i>	145.7	8.14	3.43	3.91	0.80	HIGH			8.9	10.8
Traditional dishes	Bouillabaisse	121.7	7.07	1.36	4.47	1.24	HIGH		HIGH	0.9	7.4
Traditional dishes	<i>Brandade de morue</i> [Salt code dip]	266.2	16.95	2.70	12.47	1.78	HIGH		HIGH	3.3	8.6
Traditional dishes	Stuffed carp	242.0	13.29	1.96	3.77	7.56		HIGH	HIGH	11.2	32.0
Traditional dishes	Cassoulet	218.1	17.46	6.51	8.64	2.31	HIGH			9.0	10.3
Traditional dishes	<i>Choucroute garnie</i> [dressed sauerkraut]	157.6	12.02	4.84	5.54	1.64	HIGH			11.9	14.2
Traditional dishes	Coq au vin	138.5	8.51	3.04	4.01	1.46	HIGH			16.6	21.5
Traditional dishes	<i>Fondue bourguignonne</i>	321.3	25.10	4.47	12.23	8.40	HIGH		HIGH	38.2	42.5
Traditional dishes	Veal cutlets	227.6	13.27	3.51	4.59	5.17			HIGH	50.0	82.3
Traditional dishes	Pigs feet, raw	176.4	11.60	4.60	5.50	1.50	HIGH			11.2	15.0
Traditional dishes	Pork and cabbage hotpot	100.2	5.47	2.08	2.54	0.85	HIGH			7.5	8.4
Traditional dishes	Calf's head	206.2	13.10	5.10	7.20	0.80	HIGH			3.3	3.8
Traditional dishes	Tofu	120.4	6.10	0.80	1.40	3.90		HIGH	HIGH	7.3	7.3
Traditional dishes	Stuffed tomato	102.6	5.73	2.38	2.61	0.74	HIGH			10.3	12.6
Fish	Eel, baked	229.8	13.30	3.60	7.10	2.60	HIGH		HIGH	0.8	5.5
Fish	Atlantic seabass/ seabass, raw	111.1	3.63	0.63	1.80	1.20			HIGH	0.1	1.0
Fish	Fish kebabs	94.7	5.08	0.83	1.42	2.83		HIGH	HIGH	4.6	112.0
Fish	Carp, baked	135.6	5.20	1.20	2.50	1.50			HIGH	0.4	0.7
Fish	Mackerel, in cans	208.0	14.90	4.20	8.20	2.50	HIGH		HIGH	0.2	3.0
Fish	Fish croquettes, fried	270.9	13.34	2.97	7.46	2.91	HIGH		HIGH	22.8	90.3
Fish	Fish, unspecified	135.8	5.02	1.28	2.08	1.66			HIGH	0.3	5.6
Fish	Dogfish, raw	135.0	6.00	1.70	2.80	1.50			HIGH	0.3	2.4
Fish	Sardine in oil, in cans	215.3	13.00	2.80	5.20	5.00			HIGH	2.7	11.7
Fish	Salmon, raw	169.7	9.00	1.90	3.60	3.50			HIGH	0.2	3.5
Fish	Salmon, steamed	179.5	9.50	2.00	3.80	3.70			HIGH	0.2	3.5
Fish	Salmon, smoked	184.2	10.30	2.50	4.50	3.30			HIGH	0.2	3.5

FAMILY	FOOD	KCAL	TFA	SFA	MUFA	PUFA	CLAIM			Omega 6/Omega 3		
							[3]	[4]	[5]	S(n-6)/S(n-3)	(LA+ARA)/(ALA+EPA+DHA)	LA/ALA
Potatoes	Potato balls [new potatoes], precooked, salted	137,0	6,86	1,42	3,99	1,45	HIGH		HIGH	144,0	144,0	144,0
Potatoes	Potatoes, chips, salted	515,6	34,00	7,50	16,50	10,00	HIGH		HIGH	47,5	47,5	47,5
Potatoes	Potatoes, fried, unsalted	270,2	13,80	4,00	7,30	2,50	HIGH		HIGH	non disp	non disp	non disp
Potatoes	Potatoes, sautéed, salt	112,4	4,13	0,86	2,11	1,16			HIGH	28,0	28,0	28,0
Nutritional products	Wheat germ	323,2	9,40	1,80	1,60	6,00			HIGH	11,0	11,0	11,0
Nutritional products	Fish oil	899,1	96,00	28,00	34,00	34,00			HIGH	0,1	0,1	1,5
Sugar-based products	Milk chocolate, with dried fruit	569,5	38,10	15,60	20,00	2,50	HIGH			33,6	33,6	33,6
Sugar-based products	Dark chocolate, with dried fruit	495,7	28,86	13,54	13,32	2,00	HIGH			38,4	38,4	38,4
Sugar-based products	Chocolate paste	530,2	29,40	10,30	13,80	5,30	HIGH			29,4	29,4	29,4
Sugar-based products	Almond paste	482,5	24,11	1,97	17,20	4,94	HIGH		HIGH	36,8	36,8	36,8
Sauces and condiments	Aioli	809,8	84,96	13,12	63,91	7,93	HIGH		HIGH	8,8	8,8	9,0
Sauces and condiments	Curry powder	287,1	11,70	3,20	6,50	2,00	HIGH		HIGH	17,0	17,0	17,0
Sauces and condiments	Harissa, spicey sauce	71,8	4,15	0,80	1,70	1,65			HIGH	10,0	10,0	10,0
Sauces and condiments	Mayonnaise	761,6	80,01	12,01	38,76	29,24	HIGH		HIGH	42,1	42,6	45,5
Sauces and condiments	Low fat mayonnaise	402,3	41,59	6,58	20,03	14,98	HIGH		HIGH	35,4	36,1	40,9
Sauces and condiments	Mustard	134,0	9,40	1,00	4,60	3,80	HIGH		HIGH	1,5	1,5	1,5
Sauces and condiments	Tomato sauce	58,1	3,24	0,50	2,36	0,38	HIGH		HIGH	10,7	10,7	10,7
Sauces and condiments	Tomato meat sauce	114,4	6,60	2,80	3,50	0,30	HIGH			3,2	3,3	3,3
Sauces and condiments	Vinaigrette	664,1	70,48	10,08	34,32	26,08	HIGH		HIGH	48,7	48,7	48,7
Sauces and condiments	Low fat vinaigrette	333,5	35,26	5,05	17,16	13,05	HIGH		HIGH	48,7	48,7	48,7
Sauces and condiments	Lemon vinaigrette	658,6	69,10	10,10	33,50	25,50	HIGH		HIGH	55,6	55,6	55,6
Snacks	French ham and cheese sandwich, Hawaiian-style with pineapple	238,1	10,93	3,27	2,71	4,95			HIGH	68,7	68,7	68,7
Snacks	French ham and cheese sandwich, Provençal-style with tomato	268,1	12,52	3,46	3,59	5,47			HIGH	56,1	57,3	58,4
Snacks	Chicken nugget	303,8	19,48	3,74	7,95	7,79			HIGH	78,8	91,2	107,4
Snacks	French stick sandwich	171,6	6,68	1,29	4,29	1,10	HIGH		HIGH	4,9	5,0	9,6
Snacks	Pizza	221,0	10,07	3,53	5,51	1,03	HIGH			7,0	7,1	8,4
Snacks	Tunisia tuna sandwich	233,8	8,60	1,45	4,44	2,71			HIGH	14,1	14,4	27,4
Snacks	Merguez [spicy] sausage sandwich, Merguez 2	262,6	13,76	5,76	6,72	1,28	HIGH			3,6	3,7	3,7
Snacks	Salami sandwich	371,6	22,42	9,01	10,29	3,12	HIGH			13,8	16,3	18,1
Snacks	Falafel sandwich	250,5	12,24	1,80	5,74	4,70	HIGH		HIGH	45,2	45,2	45,2
Soups	Gazpacho	49,9	2,07	0,36	1,41	0,30	HIGH		HIGH	8,3	8,3	8,3
Soups	Tomato soup	37,4	1,50	0,23	1,11	0,16	HIGH		HIGH	14,0	14,0	14,0
Soups	Fish soup	60,2	2,73	0,62	1,44	0,67	HIGH		HIGH	0,6	0,7	7,3
Meats	Beef, patty, cooked	192,3	10,83	4,70	5,45	0,68	HIGH			4,9	5,4	6,1
Meats	Beef, braised	232,0	11,25	5,00	5,70	0,55	HIGH			3,0	3,3	3,5
Meats	Beef rib, grilled	203,4	11,15	5,00	5,60	0,55	HIGH			3,0	3,3	3,5
Meats	Beef steak, grilled	203,4	11,05	5,00	5,50	0,55	HIGH			3,0	3,3	3,5
Meats	Beef flank, cooked	231,0	11,85	5,30	6,00	0,55	HIGH			3,0	3,3	3,5
Meats	Beef flank, raw	195,4	12,12	5,70	5,90	0,52	HIGH			3,0	3,3	3,5
Meats	Beef, stew, cooked	240,0	13,10	5,90	6,60	0,60	HIGH			2,9	3,2	3,3
Meats	Beef, ground %fat unknown, cooked	251,2	16,78	7,50	8,60	0,68	HIGH			3,3	3,6	3,8
Meats	Beef, ground 10% fat, cooked	212,0	12,05	5,40	6,10	0,55	HIGH			3,0	3,3	3,5
Meats	Beef, ground 15% fat, cooked	251,2	16,78	7,50	8,60	0,68	HIGH			3,3	3,6	3,8
Meats	Beef, ground 20% fat, cooked	309,0	23,35	10,50	11,90	0,95	HIGH			3,1	3,3	3,4
Meats	Beef, steak tartare	189,1	12,92	5,02	6,40	1,50	HIGH			7,5	8,3	10,9

Meats	Lamb kebabs	159,0	9,73	4,44	4,41	0,88	HIGH			6,3	7,4	8,5
Meats	Mixed meat kebabs	152,2	8,56	3,59	4,02	0,95	HIGH			8,1	9,6	10,7
Meats	Horse, steak tartare	164,3	9,91	2,81	4,58	2,52	HIGH		HIGH	4,3	4,7	5,6
Meats	Pork, rib, grilled	247,0	14,60	5,80	6,80	2,00	HIGH			11,9	14,3	16,0
Meats	Pork, spare rib, roasted	243,0	14,00	5,50	6,50	2,00	HIGH			11,9	14,3	16,0
Meats	Pork, tenderloin, roasted	246,2	14,50	5,60	6,90	2,00	HIGH			11,9	14,3	16,0
Meats	Pork, breast, smoked	291,0	23,50	9,25	11,00	3,25	HIGH			13,1	15,5	17,2
Meats	Pork, sparerib, braised	389,1	28,20	11,40	14,20	2,60	HIGH			13,4	16,2	18,3
Meats	Veal, rib, raw	192,5	10,70	4,60	5,50	0,60	HIGH			3,5	4,4	4,4
Meats	Veal, roast	230,5	10,70	4,60	5,50	0,60	HIGH			3,5	4,4	4,4
Pastries	Croissant with almonds	528,6	32,68	15,04	14,74	2,90	HIGH			10,8	10,8	10,8
Pastries	Regular croissant	404,8	16,90	3,90	9,70	3,30	HIGH		HIGH	15,5	15,5	15,5
Pastries	Waffle	179,1	6,11	1,80	3,03	1,28			HIGH	19,4	20,7	29,3
Poultry, game	Chicken kebabs	129,4	6,58	2,30	3,13	1,15	HIGH			11,7	13,8	15,8
Poultry, game	Quail, raw	161,0	8,20	2,70	3,90	1,60	HIGH			9,6	11,0	12,0
Poultry, game	Duck/goose confit	331,2	26,79	7,67	15,47	3,65	HIGH		HIGH	8,4	9,3	9,6
Poultry, game	Duck, roast	190,0	9,40	2,70	4,90	1,80	HIGH		HIGH	12,4	15,3	17,0
Poultry, game	Duck, fillet roasted	190,0	9,40	2,70	4,90	1,80	HIGH		HIGH	12,4	15,3	17,0
Poultry, game	Duckling, roasted	190,0	9,40	2,70	4,90	1,80	HIGH		HIGH	12,4	15,3	17,0
Poultry, game	Capon	213,6	11,20	3,30	5,40	2,50	HIGH		HIGH	12,6	14,4	16,2
Poultry, game	Cockerel	161,4	5,90	1,70	2,90	1,30			HIGH	10,5	12,7	15,0
Poultry, game	Turkey, thigh, raw	154,8	7,80	2,70	3,60	1,50	HIGH			16,0	17,5	20,0
Poultry, game	Chicken, skinless	228,7	11,20	3,30	5,40	2,50	HIGH		HIGH	12,6	14,4	16,2
Poultry, game	Chicken, roasted	161,4	5,90	1,70	2,90	1,30			HIGH	10,5	12,7	15,0
Yogurts	Soy yogurt	45,1	1,78	0,27	0,41	1,10		HIGH	HIGH	6,0	6,0	6,0