

## ESSNA'S POSITION ON PROTEIN DEFINITION AND LABELLING

October 2016

### KEY ISSUE - SUMMARY

Annex 1 of [Regulation \(EU\) No 1169/2011 on the provision of food information to consumers](#) (FIC) defines protein as: 'protein' means the protein content calculated using the formula: **protein = total Kjeldahl nitrogen x 6,25**.

This definition does not state from which sources the calculation can be made, in particular whether protein can be calculated from nitrogen content of ingredients containing non-protein nitrogen such as creatine, taurine, nitrates, flavour enhancer glycine, and free amino acids. In addition, the current nitrogen conversion factor of 6.25 overestimates the amount of protein for most protein sources, and underestimates that of dairy.

This is an important problem for the sports nutrition industry: a number of nitrogen containing ingredients are used in sports nutrition products to improve the nutritional quality and effectiveness of the products (e.g. creatine or carnitine). Companies are therefore at risk of inadvertently misleading consumers as to the protein content of their product.

A far bigger issue, however, and pressing concern in the internal market is the fact that the lack of a clear definition has also opened the possibility for less scrupulous companies to declare a higher protein content – despite the fact that their products are in fact formulated using nitrogen containing ingredients of lower cost and lower nutritional value than proteins. This is known as “**protein spiking**”, something that ESSNA has defined as, “**The addition of free form amino acids and other nitrogen rich/containing nutrients added for the primary purpose of increasing the calculated protein content of a food.**”

It is increasingly a problem for the entire health food industry. This is particularly because the use of protein and their associated health claims is promoted more and more on a large number of mainstream products, such as breakfast cereals, drinks and snacks. This is accompanied by a growth in consumer demand for high protein products.

Spiking, on this definition, has two important negative consequences:

- Protein spiking severely **misleads consumers** who, as a result, are prevented from making informed choices when purchasing sport nutrition and other mainstream food products that promote a high protein content.
- Protein spiking **distorts fair competition**, rewarding companies who intentionally and deceitfully inflate the protein content of their products allowing them to achieve higher profit margins and sales.

Such activities go against key General Food Law Principles, in particular Article 7(1) of the FIC Regulation covering fair information, Article 169 of the Treaty on the Functioning of the European Union, Article 8(1)(C) of Regulation (EC) 178/2002 laying down the general principles and requirements of food law, and Article 3 and 5(1) of the Regulation (EC) No 1924/2006 on nutrition and health claims made on foods. **ESSNA believes that there is a clear and pressing need to clarify this protein definition, in particular where health and nutrition claims are made on products in respect of protein.**

### ESSNA'S CODE OF PRACTICE

**ESSNA strongly condemns all deliberate acts of protein spiking within our own internal Code of Practice.** In addition, ESSNA has taken steps to help guide its members away from inadvertent spiking. ESSNA has developed guidance advising members on how to label the protein content in their products, in particular when some ingredients containing non-protein nitrogen are present in the products (which is often legitimately the case for sports nutrition products).

Our guidance includes additional voluntary declarations – in close proximity but not within the nutrition information table – regarding the ingredients that have been used to calculate protein.

This was necessary because, unless the definition of protein in the FIC is changed, food business operators are under an obligation to include all nitrogen containing ingredients into the calculation and therefore declaration of protein. **Our guidance document can be found in Appendix 1.**

## ESSNA'S REGULATORY RECOMMENDATIONS

Protein spiking is an emerging issue in Europe but it has already prompted several class action lawsuits in the USA. We therefore believe that the issue should urgently be addressed at regulatory level.

An expert Working Group has been created within ESSNA, with leading sports nutrition specialists and protein manufacturers brought together to discuss the issue and possible solutions. This Working Group has identified the following solutions:

- **Clarifying and/or amending the definition of protein in Annex 1 of Regulation (EU) No 1169/2011 on the provision of food information to consumers**

There are various different ways in which the definition of protein could be amended/clarified. Certain countries outside of the EU already use different and more specific definition, for example in the South African Regulation relating to the labelling and advertising of foodstuffs (R146/2010).

ESSNA understands, however, that an amendment to the protein definition within the FIC will have a significant impact on the whole of the food industry. Furthermore, there is no scientific consensus as to how protein should be defined.

Given the scope and potential impact of such an amendment, and following extensive debate, we would suggest a simple addition to the existing definition, which clarifies that the protein labelling should not be misleading to consumers.

- ESSNA believes a specific clarification is needed, namely that quantity of protein in a product should include only proteins that meet the following definition: **"A chain of amino acids connected by peptide bonds"**. This definition relates to protein sources to be added to the product prior to processing.
- As further clarification, it should be stated that **non-protein nitrogen- (NPN) ingredients should not be counted towards total protein content on product labels**. NPN ingredients should be accounted for and subtracted from the total nitrogen content when protein is measured by nitrogen content. The addition to food products of NPN ingredients simply to boost the protein declaration on the product is misleading.

- **Altering the Conditions of Use (CoU) for protein health and nutrition claims**

ESSNA would recommend appropriate amendments to the conditions of use of the relevant nutrition and health claims on protein.

While this solution would have the merit of applying only to those food business operators actively promoting protein on their products, it is worth noting that a number of companies may be making health claims on sub-minimal levels of true protein required to make the claims, when their protein content is declared including the nitrogen supplied by non-protein-nitrogen and free amino acids, rather than protein. This is contradictory to the NHCR where there are no health claims approved for free amino acids, for example, essential amino acids.

## ABOUT ESSNA

The European Specialist Sports Nutrition Alliance (ESSNA) was set up in 2003 to campaign for appropriate European legislation on sports nutrition products. Today, ESSNA is a pan-European trade association with 50 members representing the interests of the sports nutrition sector across the European Union. Our members are large global businesses, smaller specialist brands, suppliers of ingredients, sports nutrition publications, as well as national associations.

## Annex 1: Protein labelling risk analysis roadmap

- ESSNA members have identified an emerging concern in the internal market, where the current definition of protein on labelling allows for protein to be calculated from the nitrogen content of ingredients containing non-protein nitrogen (NPN) such as creatine, glycine, taurine and free amino acids. This results in higher protein content in the nutrition information table than what actually is in the product when defining protein as “total Kjeldahl nitrogen x 6.25”. Furthermore, it may also enable a brand/product to wrongly leverage an approved protein based health claim(s).
- Protein spiking is a problem for the entire health food industry, particularly as the use of protein and their respective health claims is increasingly promoted on a large number of mainstream products, such as breakfast cereals, drinks and snacks. This is supported with an increasing consumer interest in the protein content on labels. ESSNA has defined protein spiking as, “The addition of free form amino acids and other nitrogen rich/containing nutrients added for the primary purpose of increasing the calculated protein content of a food.” This is misleading and therefore illegal.
- Whilst such activities go against some of the General Food Law Principles, in particular Article 7(1) of the FIC covering fair information, Article 169 TFEU, Article 8(1)(C) of EC Regulation 178/2002, and Article 3 and 5(1) of the NHCR, there is currently no specific legal requirement to list the source of protein as part of the mandatory nutrition declaration. However, there is a requirement under Article 22 of Regulation 1169/2011 to quantify ingredients appearing in the name of the food, emphasised in words, pictures or graphics or to characterise a food and to distinguish it from products with which it might be confused because of its name or appearance. In addition, as a general requirement, all ingredients have to be labelled in an ingredients list (Article 9 (1)(b), Article 18 and Annex VII FIC).
- ESSNA has brought together a “roadmap” with the proposal that members accept the recommendations as part of the ESSNA code of conduct, and subsequently apply its guidance on their products (Annex I). By doing so, ESSNA is looking to prevent the deliberate act of protein spiking in the industry, whilst also protecting its members from misrepresented claims of inadvertent spiking. ESSNA condemns strongly all deliberate acts of protein spiking, which are against its Code of Practice. Therefore, members may also find this roadmap helpful when labelling and formulating products.

### Protein labelling risk analysis roadmap:

Q1. Does your product make any reference to **protein**, **specific protein sources**, and/or **amino acids** on pack? (Such as in the name of the product, claims or statements)

Yes: [    ]

No: [    ] You are outside the scope of this roadmap

Q2. Name the food source(s) of protein, referred to on pack.

If you only make reference to protein in general on pack, name the food source(s) of protein declared in the list of ingredients:

Declare: \_\_\_\_\_ g,

This is the 'definition of protein', specific to your product.

Q3. How much of the total protein declared in the product's Nutrition Information table is provided by the food source(s) above:

### Proposed Recommendations:

a) If amount = total protein, no action is required other than considering the importance of including a QUID for the source of protein

**Declare (g/100g or ml):**

**Declare (g/portion):**

(see recommendations →)

(Article 9(1)(d), 22 and ANNEX VIII FIC Regulation 1169/2011)

b) If not, you should also consider labelling either:

- "Calculated protein, of which, [protein source(s) and respective amount, (xg per 100g/100ml and xg per portion)]" in close proximity but not within the nutrition declaration; or
- "Added [name of Amino Acid/X compound] contributes to x% of the total calculated protein" in close proximity but not within the nutrition declaration; or
- "X contribute x% of the calculated protein content per serving of this product; or
- "Calculated protein includes added amino acids/all Nitrogen sources" in close proximity but not within the nutrition declaration.
- "X ingredient is used to calculate the protein content."

c) List of protein sources, which are considered to be non-protein nitrogen-containing (NPN) ingredients: creatine, glycine, taurine, free amino acids, extractions of amino acids.

Extractions of amino acid such as functional peptides.

Q4. Is the amount declared in Q3 a significant amount of protein? Does the product claim to be a SOURCE OF, or HIGH IN, protein, or make similar protein nutrition claims?

This means: 1) at least 12% (or 20%) of the energy value of the food provided by protein and, if you have instructions for use, 2) the total amount recommended per portion should add up to the amount declared in Q3.

Yes: [ ]

No: [ ]

You are OK.

You must reformulate the product to provide the minimum amount required or recommended or re-label to reflect actual protein content.

Q5. Do you claim any beneficial health properties of protein?

Yes: [ ]

No: [ ]

Proceed to Q6

You are OK.

**Permitted Protein health claims:**

"Protein contributes to a growth in muscle mass"

"Protein contributes to the maintenance of muscle mass"

"Protein contributes to the maintenance of normal bones"

The European Union Register of nutrition and health claims made on foods can be found [here](#).

Q6. Does the amount declared in Q3 meet the minimum conditions of use to make the health claim?

Yes: [ ]      No: [ ]

You are OK.

You must withdraw the claim or reformulate the product

**Minimum conditions:**

At least 12 % of the energy value of the food is provided by protein.

**Protein nutrition claims:**

"Source of protein": at least 12 % of the energy value of the food is provided by protein.

"High protein": at least 20 % of the energy value of the food is provided by protein

Q7. Do you declare all the ingredients of the product in the List of Ingredients?

Yes: [ ]      No: [ ]

You are OK.

Your product is illegal and you must re-label to declare all ingredients.

All ingredients must be declared according to Article 9 and 18 of Food Information to Consumer Regulation (Regulation 1169/2011)