AIPCE-CEP REQUEST TO THE EUROPEAN COMMISSION REGARDING THE MODIFICATION OF SULPHITES MAXIMUM LEVELS IN COOKED NORWAY LOBSTER

AIPCE-CEP[1] would like to request a modification of the authorized limits of sulphites in **cooked Norway Lobsters** (*Nephrops norvegicus* - *Nephropidae* family), set by Regulation (EC) No 1333/2008, from the current maximum level of 50mg/kg to a new limit of 150mg/kg.

Underlying issue

The maximum quantity authorized for raw Norway Lobsters is 150 mg / kg, while it is set at only 50 mg / kg for cooked Norway Lobsters. However, the rate of sulphites does not diminish during the cooking process, giving rise to a severe regulatory inconsistency.

We therefore request a harmonization of the sulphites maximum levels in Norway lobsters, between raw and cooked.

Technical Justification to the use of sulphites in crustaceans

The development of the phenomenon of post-mortem melanosis observed in crustaceans, and particularly Norway Lobsters, has a significant impact on the shelf life and the overall commercial value of the products. This phenomenon of melanosis results from enzymatic activities [phenoloxidase (tyrosinase)] catalyzing irreversible oxidation reactions of the free tyrosine present in the tissues, resulting in the appearance of black spots on the crustaceans.

To limit this process, non-living crustaceans under ice, including Norway Lobsters, are treated with sodium metabisulphite (E223). This operation inhibits the action of polyphenoloxidases and stops the appearance of melanosis.

To be effective and minimize the use of sodium metabisulphite, this operation is performed as soon as possible after catching or harvesting. This is why it is usually carried out directly on fishing boats, or after harvest for farmed crustaceans. Sulphites treatment is followed by rinsing.

The lack or insufficiency of treatment can result in the loss of the product, occasioning regrettable food waste.

Sulphites management

Due to well-documented human health threats caused by exposition to sulphites, food business operators are committed to use sulphites treatment under controlled and managed conditions. In order to limit the risks associated with the use of sulphites, they implement a set of preventive measures of which for example:

Raw materials (raw crustaceans):

- Supplier specifications and suppliers qualifications in relation to the sulphiting conditions on board or at the level of the ponds and the conditions of conservation of the products;
- Raw materials checked upon receipt; new supplier audited with control strengthened.

Sulphites used:

- Specifications: purity criteria for food additives must be respected, the manufacturing processes must be validated.
- Concentration of the sulphites solution: use of the minimum possible concentration to obtain the desired effect. Secondary treatment in cooking establishment avoided as much as possible; if it becomes necessary, the sulphites content of the entering raw material is taken into account.

Sulphiting operation:

- Process validated (instructions, personnel trained).

[1] AIPCE (EU Fish Processors and Traders Association) and CEP (European Federation of National Organizations of Importers and Exporters of Fish) were established in 1959 and collaborate on the basis of a Co-operation Agreement, creating AIPCE-CEP. The association represents 20 EU National Associations and 2 Associations in Third countries, for a total of nearly 3,500 companies, the majority of which with 20 employees at most, for total employment of around 120,000 persons. The overall value of the output of the industry represented by AIPCE-CEP amounts to around EUR 27 billion, or three times the turnover of the catch sector.

- Sulphiting techniques limited to spraying or soaking (no dusting); amount of sulphites used to be controlled as well as the residual sulphites content in the product ;
- Thorough rinsing of the product after treatment;

The whole process is well mastered and there are many checkpoints along the supply chains. All the operators are trained to identify potential risks.

Conclusions

Despite the numerous controls and mitigation measures, food business operators face difficulties to obtain cooked Norway Lobsters with a sulphites content of less than 50 mg / kg when the raw material received has a sulphites content between 50 and 150 ppm.

A treatment rate below 50 ppm in the raw material and in cooked products does not guarantee the desired effect to tackle melanosis.

In 2017, a data collection conducted by a national technical board[2] showed a rate of exceedance of the maximum limit for 21.5% of lots for cooked Norway Lobster while it was only 5.8% for raw Norway Lobsters.

Number of samples	190
0-50 mg/kg	139
50-150 mg/kg	40
> 150 mg/kg	11
% non-compliant	**5,8%**

Norway Lobster - COOKED	
Number of samples	144
0-50 mg/kg	113
> 50 mg/kg	31
% non-compliant	**21,5%**

Table 4 - 2018 Pool Report Data (2017 Data)

It happens very often that food business operators refuse raw Norway Lobsters batches with sulphites levels between 50 and 150 mg/kg upon receipt because they would exceed the limits after cooking, although in compliance with the regulations, causing food waste.

The difference between the maximum permitted thresholds in raw products (150 mg/kg) and in cooked products (50 mg/kg) is the reason of these difficulties.

Aligning the maximum allowed limit of cooked products with that of raw products (i.e. 150 mg/kg) would allow being closer to the reality, to remove an inconsistency and to simplify the regulation without creating any danger for the consumer (see Table 3).

		expressed in SO (mg/kg)		
Individual weight (kg)	Ingestible sulphite dose / day (mg)	50	150	200
50	35	**700**	**233**	**175**
70	49	**980**	**327**	**245**
100	70	**1400**	**467**	**350**

Table 3 - Maximum amount of ingestible crustacean meat per day (in g) based on the maximum allowed SO_2 limit (in mg / kg) and the weight of the individual (in kg)

[2] CITPPM – Confédération des Industries de traitement des produits de la pêche maritime et de l'aquaculture (France) www.citppm.org.