

24 May 2018

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Dear Sir Madam

Attached are the comments that the New Zealand Food & Grocery Council wishes to present on the ***Call for submissions – Application A1146: Thermolysin (Protease) as a Processing Aid (Enzyme).***

Yours sincerely



***Call for submissions – Application A1146:  
Thermolysin (Protease) as a Processing  
Aid (Enzyme)***

**Submission by the New Zealand Food & Grocery  
Council**

**24 May 2018**

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## NEW ZEALAND FOOD & GROCERY COUNCIL

1. The New Zealand Food & Grocery Council (“NZFGC”) welcomes the opportunity to comment on the ***Call for submissions – Application A1146: Thermolysin (Protease) as a Processing Aid (Enzyme)***.
2. NZFGC represents the major manufacturers and suppliers of food, beverage and grocery products in New Zealand. This sector generates over \$34 billion in the New Zealand domestic retail food, beverage and grocery products market, and over \$31 billion in export revenue from exports to 195 countries – some 72% of total merchandise exports. Food and beverage manufacturing is the largest manufacturing sector in New Zealand, representing 44% of total manufacturing income. Our members directly or indirectly employ more than 400,000 people – one in five of the workforce.

### THE APPLICATION

3. Amano Enzyme Inc from Japan has made application for amendment to Schedule 18 of the Australian New Zealand Food Standards Code (the Food Standards Code) to include Thermolysin (Protease) from *Anoxybacillus caldiproteolyticus* as a processing aid. Thermolysin is used as an enzyme to improve physical properties in foods such as foamability, emulsification, heat stability and viscosity. It also can contribute to taste and flavour and to nutritional properties of absorption and digestion. It has application in the processing of dairy, egg, meat, fish, protein, yeast and flavouring.

### OVERARCHING COMMENTS

4. NZFGC supports the addition of Thermolysin (Protease) from the *A caldiproteolyticus* strain TP-7 as a processing aid and amendment to Schedule 18.
5. We note that the proposed approval is narrower than that sought (limited to *A caldiproteolyticus* strain TP-7) because the data provided for assessment by FSANZ was limited to the strain TP-7 data.
6. We anticipate that benefits to industry identified (improvements in textural and physiochemical properties of foods) will accrue from including this processing aid in Schedule 18 depending on its uptake. There are foods manufactured overseas using this processing aid that could also be imported once the processing aid is approved.
7. We note there were no health or safety concerns identified by FSANZ but that FSANZ took a very conservative position in relation to labelling for allergens. We understand that even though data and heating might well suggest the prospect of fish residue in this enzyme could be zero or very miniscule that the recommendation was to state a fact without discussion “if fish is present in a food for sale .... it is required to be declared”.

### DETAILED COMMENTS

8. Amano Enzyme Inc. has produced the food enzyme of thermolysin from a non-genetically modified strain of *A caldiproteolyticus* strain TP-7 with the expectation that it will improve the processing of certain products.

#### *Food Technology assessment*

9. The technological purposes of thermolysin are already wide and varied across the products identified by Amano Enzyme Inc with a predominance of flavour enhancement but also

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improved thermal tolerance and improved nutritional content and functionality. FSANZ therefore agreed that these outcomes justify its use at levels consistent with GMP.

10. The enzyme preparation/manufacturing process meets international guidelines for the safe handling of microbial enzyme preparations and the company's production plants are all GMP certified in Japan. The product has long term stability over 18 months at both 15 and 25°C.
11. The enzyme performs its technological function during processing and manufacture of food after which it is inactivated. NZFGC therefore supports FSANZ's conclusion that the product is a processing aid.

#### *Hazard assessment*

12. The product has a long history of safe use (since 1980). Its use has been approved in France where there are no allergenicity warnings associated with its use. Based on the toxicological data, FSANZ concluded that in the absence of any identifiable hazard to health and safety of the general population, it was not appropriate to set an Acceptable Daily Intake. While fish products are used in the fermentation media, risk management measures are indicated for protection of the subpopulation sensitive to such products where they remain in the final food.
13. NZFGC considers the inclusion of this processing aid in the range available to New Zealand manufacturers increase flexibility for the manufacturers and potentially provides benefits in taste and feel of food products for consumers. We therefore support amendment of the Food Standards Code to include it.

#### *Risk management - labelling*

14. We are disappointed that the uncertainty in the approach taken by FSANZ in relation to labelling. We understand that even though data supplied by Amano Enzymes Inc showed that any residue from the fish used in the process to manufacture this enzyme (in the fermentation media) was below the limit of detection, that the heating of the enzyme most likely denatured any residual protein from the fish, and that when used in the very small amounts in the processing of foods in which it might be used there would be a very minuscule prospect of fish residue, that labelling was to be left for commercial decision-making on the basis that "if fish is present in a food for sale .... It is required to be declared."