18 December 2018

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Dear Sir/Madam

Attached are the comments that the New Zealand Food & Grocery Council wishes to present on ***Call for submissions: Application A1165 Lysophospholipase from*** **Trichoderma reesei** ***as a processing aid (enzyme)***.

Yours sincerely

Katherine Rich
Chief Executive

Call for submissions: Application A1162 Lysophospholipase from *Trichoderma reesei* as a processing aid (enzyme)

Submission by the New Zealand Food & Grocery Council

18 December 2018

NEW ZEALAND FOOD & GROCERY COUNCIL

1. The New Zealand Food & Grocery Council ("NZFGC") welcomes the opportunity to comment on ***Call for submissions: Application A1162 Lysophospholipase from* Trichoderma reesei *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. An application has been made by AB Enzymes GmbH of Germany to allow the use of lysophospholipase from a genetically modified strain of *Trichoderma reesei* (*T. reesei*) as a processing aid for use in starch processing including the production of syrups and sweeteners.

4. Lysophospholipase breaks down lysophospholipids in starch. Lysophospholipids would otherwise affect the filtration rate and clarity of syrups and sweeteners (starch hydrolysates). The production process for lysophospholipase results in an enzyme solution that is free of the production organism and other insoluble substances. It is sold mainly as a liquid product.

COMMENTS

Risk assessment

5. FSANZ confirmed the technological purpose of lysophospholipase as set out by the applicant and with the benefits of hydrolysing lyphospholipids present in starch which would otherwise have a negative impact on the filtration rate and clarity of such syrups and sweeteners. Its technological purpose is therefore justified and effective.

Safety assessment

6. *T. reesei* is non-pathogenic, the lysophospholipase is non-genotoxic *in vitro* and has no observed adverse effect level in the toxicity study at the highest dose tested (almost 160,000 times higher than the applicant's estimate of an individual's theoretical maximum daily intake based on the proposed uses). The production process of lysophospholipase ensures *T. reesei* is absent in the final enzyme preparation. *T. reesei* has a history of safe use as the production organism for a number of enzyme processing aids allowed in the Australia New Zealand Food Standards Code.

7. While the residual enzyme is not expected to be present in the syrup or sweetener, ingestion of any residual lysophospholipase is unlikely to pose an allergenicity concern. However, the enzyme may contain traces of wheat which would require management for wheat allergic individuals if present.

8. In light of the foregoing safety assessment, FSANZ considered it unnecessary to specify an acceptable daily intake precluding the need for a dietary exposure assessment. FSANZ concluded that overall, there were no safety concerns from the use of lysophospholipase as produced and as a processing aid in syrups and sweeteners.

Other benefits

9. Lysophospholipase has a higher activity than other similar products on the market which means that less excipients need to be added and a lower enzyme dose rate which is environmentally advantageous and less costly for manufacturers.

10. NZFGC considers that the availability of a processing aid with enhanced activity attributes than those currently available on the New Zealand market provides benefits for manufacturers in processing and for consumers in products with better qualities.

Overseas responses

11. Lysophospholipase was approved by France in July 2013 and approved as 'Generally Recognised as Safe' by the USA (GRAS #653, 21 June 2016).

Labelling

12. While the use of the enzyme lysophospholipase as prepared presents no concern to public health and safety, its use in syrups or sweeteners are not foods for sale but ingredients in final foods. The enzyme would therefore not be an ingredient of the final food product and no genetic modification labelling is required.

13. The enzyme sold as an ingredient in syrups or sweeteners may contain traces of wheat. If wheat is present, even in a processing aid, then the wheat presence triggers a mandatory labelling requirement. NZFGC is of the view that testing of the final product may remove this need although a cautionary approach could be the inclusion of a 'may contain' statement.

NZFGC Conclusion

14. NZFGC supports the availability of substances such as processing aids that enhance food processing and manufacture and that provide choice amongst other similar enzymatic processing aids on the market. The consumer benefits from the improved quality of products and the food supply is enriched as a result.

15. NZFGC therefore supports the draft variation as far as it goes and as proposed by FSANZ. This would result in amendment of Schedule 18 of the Australia New Zealand Food Standards Code and permit lysophospholipase sourced from *T. reesei* to be used in starch processing including the production of syrups manufacture.

16. NZFGC believes the addition of 'and sweeteners' to the inclusions for starch processing in Schedule 18 would assist in removing uncertainty about use of the enzyme beyond syrups (see p18 and 45-46 of the Application).