18 October 2010

Project Officer Application A1034
Food Standards Australia New Zealand
PO Box 10559
The Terrace
WELLINGTON 6036

FS350-117-1034

Dear Sir/Madam

Application A1034 – Advantame as a High-Intensity Sweetener– 1st Assessment Report

Thank you for the opportunity to comment on this application. The New Zealand Food Safety Authority (NZFSA) has the following comments to make.

Based on the data presented and subject to further exposure assessment, NZFSA supports, in principle, Option 2B to list Advantame in Schedule 2 of Standard 1.3.1.

NZFSA has reviewed the Risk and Technical Assessment Report. The Report is very comprehensive and assesses a full toxicology data package for this sweetener, and also human trial data (including a 12-week trial on type 2 diabetics). We agree with the FSANZ assessment noting that:

- Very little compound-related toxicity was identified in any of the testing even with the relatively high top doses used. It is clear that less than 10% of the parent compound is absorbed and that the substance absorbed is the acid following de-esterification in the gut. The majority of a dose is retained in the gut and excreted via faeces. No accumulation was seen in any animal tested.

- Metabolism of the Advantame acid that is absorbed is rapid, and no metabolites posing any health risk were identified. It is clear that metabolism does release both methanol and phenylalanine, but at levels far below those naturally produced in the body via normal metabolism of foods, and they do not pose any risk to phenylketonuria (PKU) sufferers.

- Human trials demonstrated that Advantame is well tolerated at least up to 10-times the maximum theoretical maximum daily intake, which is estimated from very conservative dietary intake estimates that clearly grossly exaggerate the potential intake figures.

- As very conservative dietary intake estimates show that the potential intakes are below 3% of the conservatively estimated ADI, we see no reason to raise objections on toxicological grounds to the acceptance of the proposal as there are no identifiable public health risks arising from acceptance.

- Metabolism was shown to be very similar for humans, rats and dogs (3.2.1). However, rabbits were identified as the animal that was the most sensitive to Advantame exposure. The presence of colour in the rabbit gut suggests that their metabolism may be different (3.2.8.2). Therefore, we question whether other data in the submission demonstrates that the rabbit is an appropriate model for humans. We note that the rabbit developmental/reproduction toxicity testing gave rise to the NOAEL used to establish an ADI of 5 mg/kg-bw for Advantame, and that this was a very conservative decision by the risk assessor. A higher ADI may have been justifiable if the rabbit is found not to be a good surrogate for humans.

Yours sincerely

Jenny Reid
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Science