24 November 2026
422-26

Call for submissions – Application A1354

D-psicose 3-epimerase from *Escherichia coli* K-12 (gene donor: *Desmospora sp.* 8437*)* for use as a processing aid

Food Standards Australia New Zealand (FSANZ) has assessed an application made by Tate and Lyle Solutions USA LLC to permit the use of the immobilised enzyme D-psicose 3-epimerase from *Escherichia coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora sp.* 8437 as a processing aid for the production of D-allulose, and has prepared a draft food regulatory measure. Pursuant to section 31 of the *Food Standards Australia New Zealand Act 1991* (FSANZ Act), FSANZ now calls for submissions to assist consideration of the draft food regulatory measure.

Submissions on this application need to be made through the Consultation Hub. All submissions on applications will be published on the Consultation Hub. We will not publish material that we accept as confidential. In-confidence submissions may be subject to release under the provisions of the *Freedom of Information Act 1982*. Submissions will be published following consultation and before the next stage in the statutory assessment process.

Under section 114 of the FSANZ Act, some information provided to FSANZ cannot be disclosed. More information about the disclosure of confidential commercial information is available on the FSANZ website at Making a submission. For information on how FSANZ manages personal information when you make a submission, see FSANZ's Privacy Policy.

FSANZ also accepts submissions in hard copy to our Australia and/or New Zealand offices. There is no need to send an email or hard copy of your submission if you have submitted it through the FSANZ Consultation Hub.

DEADLINE FOR SUBMISSIONS: 11:59pm (Canberra time) 22 December 2026

Submissions received after this date will not be considered unless an extension had been given before the closing date. Extensions will only be granted due to extraordinary circumstances during the submission period. Any agreed extension will be notified on the FSANZ website and will apply to all submitters.

For information about making a submission, visit the FSANZ website at current calls for public comment and how to make a submission.

Questions about making a submission or application and proposal processes can be sent to standards.management@foodstandards.gov.au.

Submissions in hard copy may be sent to the following addresses:

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Supporting document

The following document which informed the assessment of this Application is available on the A1354 page on the FSANZ website:

SD1 Risk and technical assessment report

Executive summary

Tate and Lyle Solutions USA LLC has applied to Food Standards Australia New Zealand (FSANZ) to amend the Australia New Zealand Food Standards Code (the Code) to permit the use of the immobilised enzyme D-psicose 3-epimerase (EC 5.1.3.30) as a processing aid to produce D-allulose, a low-energy sugar substitute for conventional sugar ingredients, particularly sucrose. The enzyme is produced by *Escherichia coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora sp*. 8437

The proposed use of the immobilised enzyme to catalyse the epimerisation of D-fructose to produce D-allulose is technologically justified in the quantity and form stated by the applicant. The enzyme performs its technological function during food processing, therefore functioning as a processing aid for the purposes of the Code. There are relevant identity and purity specifications in the Code with which the enzyme must comply when added to food or sold for use in food, in accordance with the Code.

FSANZ concluded there are no safety concerns with the use of immobilised D-psicose 3-epimerase produced by this *Escherichia coli* K-12 under the proposed conditions of use.

Following assessment, for reasons set out in this report, FSANZ has prepared a draft variation to amend the table to subsection S18—9(3) of the Code by listing this enzyme and its associated technological purpose in the table. This table lists substances (including enzymes) permitted to be used as processing aids for specific technological purposes.

The effect of the draft variation, if approved, would be to permit the use of this enzyme as a processing aid to produce D-allulose from D-fructose, in accordance with the Code. The enzyme would have to be used at a level consistent with Good Manufacturing Practice.

FSANZ now seeks submissions on the draft variation of the Code.

1 Introduction

1.1 The applicant

The applicant is Tate and Lyle Solutions USA LLC, a food ingredient manufacturer.

1.2 The application

The purpose of the application is to amend the Australia New Zealand Food Standards Code (the Code) to permit the use of the immobilised enzyme D-psicose 3-epimerase (EC 5.1.3.30) as a processing aid. The enzyme is produced by *Escherichia coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437. Immobilised D-psicose 3-epimerase is used as a processing aid to catalyse the epimerisation of D-fructose to produce D-allulose, a low-energy sugar substitute for conventional sugar ingredients, particularly sucrose. The applicant has indicated that the enzyme would be used in accordance with Good Manufacturing Practice (GMP).[1]

1.3 The current standard

Australian and New Zealand food laws require food for sale to comply with relevant requirements in the Code. The requirements relevant to this application are summarised below.

1.3.1 Permitted use

Paragraph 1.1.1—10(6)(c) of the Code provides that food for sale cannot contain, as an ingredient or component, a substance used as a processing aid unless the use of that substance as a processing aid is expressly permitted by the Code. Section 1.1.2—13 provides that a substance 'used as a processing aid' in relation to a food is a substance used during the course of processing that meets all of the following conditions:

- it is used to perform a technological purpose during the course of processing
- it does not perform a technological purpose in the food for sale
- it is a substance listed in Schedule 18 or identified in section S16—2 as an additive permitted at GMP.

Standard 1.3.3 and Schedule 18 list the permitted processing aids. Enzymes of microbial origin permitted to be used as processing aids are listed in the table to subsection S18—4(5) or in the table to subsection S18—9(3) of Schedule 18, depending on whether a technological purpose has been specified. An enzyme of microbial origin listed in the table to subsection S18—4(5) is permitted for use as a processing aid to perform any technological purpose if the enzyme is derived from the corresponding source specified in the table. The table to subsection S18—9(3) lists those substances, including enzymes derived from particular sources, that are permitted to be used as processing aids for specific technological purposes in relation to:

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[1] GMP is defined in section 1.1.2—2 of the Code as follows: ***GMP*** *or* ***Good Manufacturing Practice****, with respect to the addition of substances used as food additives and substances used as processing aids to food, means the practice of:*

(a) limiting the amount of substance that is added to food to the lowest possible level necessary to accomplish its desired effect; and

(b) to the extent reasonably possible, reducing the amount of the substance or its derivatives that:

*(i) remains as a *component of the food as a result of its use in the manufacture, processing or packaging; and*

(ii) is not intended to accomplish any physical or other technical effect in the food itself;

(c) preparing and handling the substance in the same way as a food ingredient.

- if a food is specified—that food, or
- if no food is specified—any food.

Additionally, paragraph 1.3.3—11(c) specifies that the substance may only be used as a processing aid if it is not present in the food at greater than the maximum permitted level for that substance indicated in the table to section S18—9.

There is one permission in the table to subsection S18—9(3) for use of D-psicose 3-epimerase (EC 5.1.3.30) produced by *Microbacterium foliorum*. *E. coli* K-12 is the host organism for a range of enzymes in Schedule 18. *Desmospora* sp. 8437 is not listed in Schedule 18, neither as a host nor gene donor organism.

Immobilised D-psicose 3-epimerase from *E. coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437 is not listed in the table to subsection S18—4(5) nor the table to subsection S18—9(3) and so is not currently a permitted processing aid for use in food processing.

1.3.2 Identity and purity requirements

Paragraph 1.1.1—15(1)(b) of the Code requires substances used as processing aids in food to comply with any relevant identity and purity specifications listed in Schedule 3 of the Code when added to food in accordance with the Code or sold for use in food.

Subsection S3—2(1) of the Code incorporates by reference the specifications listed in the Joint FAO/WHO Expert Committee on Food Additives (JECFA) Combined Compendium of Food Additive Specifications (FAO JECFA Monographs 34 (2025)), and the United States Pharmacopeial Convention (2024) Food Chemicals Codex (14th edition). These include general specifications for enzyme preparations used in food processing for identity and purity parameters.

1.3.3 Labelling requirements

Subsection 1.1.1—10(8) provides that food for sale must comply with all relevant labelling requirements in the Code.

Paragraphs 1.2.4—3(2)(d) and (e) exempt processing aids from the requirement to be declared in the statement of ingredients, unless other requirements apply.

1.4 International standards

1.4.1 International

In developing food regulatory measures, FSANZ must have regard to the promotion of consistency between domestic and international food standards. In terms of food safety, the relevant international standard setting body is the Codex Alimentarius Commission (Codex).

There is no Codex ‘general standard’ for processing aids. However, as noted in section 1.3.2 of this report, there are internationally recognised specifications for enzyme preparations established by JECFA and Food Chemicals Codex.

Additionally, there is a Codex guideline, *Guidelines on Substances used as Processing Aids* (CAC/GL 75-2010), which sets out general principles for the safe use of substances used as processing aids, including that substances used as processing aids shall be used under conditions of GMP.

1.4.2 Overseas regulations

D-psicose 3-epimerase produced by *E. coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437 has been approved for use as a processing aid by EFSA (EFSA 2025). Another D-psicose 3-epimerase from *E. coli* K-12 with a gene from *Arthrobacter globiformis* was also assessed and permitted by EFSA (EFSA 2021).

1.5 Reasons for accepting Application

The Application was accepted for assessment because:

- it complied with the procedural requirements under subsection 22(2)
- it warranted the variation of a food regulatory measure.

1.6 Procedure for assessment

The Application is being assessed under the General Procedure in accordance with the FSANZ Act.

2 Summary of the assessment

FSANZ has undertaken an assessment to determine whether the enzyme achieves its technological purpose in the quantity and form proposed, and to evaluate public health and safety risks that may arise from its use, see Supporting Document 1 (SD1). Summaries of both assessments are provided below.

2.1 Food technology assessment

D-psicose 3-epimerase catalyses the epimerisation of D-fructose to D-allulose, a low energy sugar. It functions as a processing aid for the purposes of the Code, noting it does not perform a technological purpose in the food for sale.

FSANZ concluded that the enzyme's proposed use, in the proposed quantity and form (the former of which must be consistent with GMP), is technologically justified.

There are relevant identity and purity specifications listed in Schedule 3 of the Code with which the immobilised enzyme will have to comply whenever it is added to food in accordance with the Code or sold for use in food. These are detailed in section 2.2.2 of SD1. Based on analytical data provided by the applicant, the enzyme met the relevant specifications.

2.2 Risk assessment

No public health or safety concerns were identified concerning the use of the production organism, which is neither pathogenic nor toxigenic. Analysis of the production strain confirmed the presence and stability of the inserted DNA.

The amino acid sequence of the D-psicose 3-epimerase has no homology with any known toxin or allergen, and there are no case reports of allergic reactions to the enzyme. The enzyme is used when immobilised on a food-grade resin and cannot be detected in the final D-allulose product. Therefore, the likelihood of consumer exposure to the enzyme is negligible. For this reason, FSANZ concludes that toxicological studies are not necessary, and derivation of an Acceptable Daily Intake (ADI) is not required.

FSANZ has not undertaken a dietary exposure assessment for the enzyme because analytical testing confirmed that it is unlikely to be present in the final D-allulose products and there is no ADI. This is consistent with similar assessments conducted by FSANZ and internationally.

2.3 Risk management

The risk management options available to FSANZ after assessment were to either:

- reject the application, or
- prepare a draft variation of the Code.

For the reasons listed in this report, FSANZ decided to prepare a draft variation to the Code permitting the proposed use of immobilised D-psicose 3-epimerase from *E. coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437 as a processing aid to produce D-allulose in accordance with the Code. If approved, this permission would be subject to the condition that the maximum permitted level or amount of this enzyme present in the food must be consistent with GMP. Other risk management considerations for this application are related to the enzyme and source microorganism nomenclature, specifications and labelling. These are discussed below.

2.3.1 Regulatory approval

FSANZ has prepared a draft variation to permit the use of the immobilised enzyme as a processing aid to epimerise D-fructose to produce D-allulose.

2.3.2 Enzyme nomenclature, source microorganism nomenclature and specifications

FSANZ notes the International Union of Biochemistry and Molecular Biology (IUBMB) lists the accepted name 'D-psicose 3-epimerase' for the enzyme EC 5.1.3.30 (see section 2.1 of SD1). This is the name used in the proposed draft variation.

Nomenclature for the host and gene donor organisms – *E. coli* K-12 and *Desmospora* sp. 8437, respectively – is in accordance with accepted international norms for bacterial taxonomy.

There are relevant identity and purity specifications in primary sources of specifications listed in Schedule 3 for enzyme preparations used in food processing (refer to section 1.3.2 of this report and section 2.2.2 of SD1). As stated above, this enzyme would have to comply with those specifications when added to food in accordance with the Code or sold for such use.

2.3.3 Labelling

The labelling provisions in the Code will apply to foods for sale that are manufactured using this processing aid. See Section 1.3.3 of this report.

2.3.4 Risk management conclusion

The risk management conclusion is to permit the proposed use of the enzyme, immobilised D-psicose 3-epimerase from *E. coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437, as a processing aid to produce D-allulose in accordance with the Code. If approved, the enzyme and its associated technological purpose would be listed in the table to subsection S18—9(3) of the Code, which includes enzymes permitted for a specific technological purpose. The maximum permitted level of the enzyme that may be

present in the food would have to be an amount consistent with GMP.

2.4 Risk communication

2.4.1 Consultation

Consultation is a key part of FSANZ's standards development process. FSANZ developed and applied a standard communication strategy to this application. All calls for submissions are notified via the FSANZ Notification Circular, digital channels and Food Standards News.

The process by which FSANZ approaches standards development matters is open, accountable, consultative and transparent. Public submissions are called to obtain the views of interested parties on the draft variation.

The draft variation will be considered for approval by the FSANZ Board taking into account all public comments received from this call for submissions.

2.4.2 World Trade Organization (WTO)

As members of the World Trade Organization (WTO), Australia and New Zealand are obliged to notify WTO members where proposed mandatory regulatory measures are not substantially the same as existing international standards and the proposed measure may have a significant effect on trade.

There are no relevant international standards (i.e. Codex) and amending the Code to permit the proposed use of this enzyme as a processing aid is unlikely to have a significant effect on international trade. Therefore, a notification to the WTO under Australia's and New Zealand's obligations under the WTO Technical Barriers to Trade or Application of Sanitary and Phytosanitary Measures Agreement was not considered necessary.

2.5 FSANZ Act assessment requirements

When assessing this Application and the subsequent development of a food regulatory measure, FSANZ has had regard to the following matters in section 29 of the FSANZ Act:

2.5.1 Section 29

2.5.1.1 Consideration of costs and benefits

FSANZ has assessed that a Regulation Impact Statement is not required for this application. This is because applications relating to permitting processing aids determined to be safe are considered to be minor in impact or deregulatory in nature as their use will be voluntary if the draft variation concerned is approved.

FSANZ however had regard to whether costs that would arise from the proposed measure outweigh the direct and indirect benefits to the community, government or industry that would arise from the proposed measure (as per paragraph 29(2)(a) of the FSANZ Act).

The consideration of the costs and benefits in this section is not intended to be an exhaustive, quantitative economic analysis of the proposed measures and, in fact, most of the effects that were considered cannot easily be assigned a dollar value. Rather, the assessment seeks to highlight the potential positives and negatives of moving away from the status quo by permitting the proposed use of the immobilised enzyme D-psicose 3-epimerase (EC 5.1.3.30) from this source as a processing aid to produce D-allulose.

FSANZ's conclusions regarding the costs and benefits of the proposed measure are set out

below. However, information received from the call for submissions may result in FSANZ arriving at a different outcome.

Costs and benefits of the proposed measure

If the draft variation is approved, industry might benefit from production efficiencies from the use of this enzyme as a processing aid. Due to the voluntary nature of the permission, industry would only use the permission where they believe a net benefit exists for them. Permitting this source of D-psicose 3-epimerase may also encourage competition for enzymes used in the manufacture of D-allulose.

If industry experience cost savings because of using D-psicose 3-epimerase (EC 5.1.3.30) as a processing aid to produce D-allulose, industry might pass on some of the cost savings to consumers.

Permitting the proposed use of this enzyme as a processing aid might result in a small, inconsequential cost to government in terms of an addition to the current range of processing aids that are already monitored for compliance.

Conclusions of costs and benefits

FSANZ's assessment is that the direct and indirect benefits that would arise from permitting the use of the enzyme as proposed are likely to outweigh the associated costs.

2.5.1.2 Other measures

There are no other measures (whether available to FSANZ or not) that would be more cost-effective than a food regulatory measure developed or varied as a result of the Application.

2.5.1.3 Any relevant New Zealand standards

The relevant standards in the Code apply in Australia and New Zealand. There are no relevant New Zealand only standards.

2.5.1.4 Any other relevant matters

Other relevant matters are considered below.

2.5.2. Subsection 18(1)

FSANZ has also considered the three objectives in subsection 18(1) of the FSANZ Act during the assessment.

2.5.2.1 Protection of public health and safety

FSANZ undertook a risk and technical assessment and concluded there were no public health and safety concerns associated with the proposed use of this enzyme (see section 2.2 of this report and SD1).

2.5.2.2 The provision of adequate information relating to food to enable consumers to make informed choices

The labelling requirements for this enzyme are discussed in section 2.3.3 of this report.

2.5.2.3 The prevention of misleading or deceptive conduct

There were no issues identified with this application relevant to this objective.

2.5.3 Subsection 18(2) considerations

FSANZ has also had regard to:

- **the need for standards to be based on risk analysis using the best available scientific evidence**

FSANZ used the best available scientific evidence to conduct the risk analysis. The applicant submitted a dossier of information and scientific literature as part of their application. This dossier, together with other technical and scientific information, was considered by FSANZ in assessing the application. The risk assessment is provided in SD1.

- **the promotion of consistency between domestic and international food standards**

In terms of food safety, the relevant international standard setting body is Codex. There is no Codex 'general standard' for processing aids, however, as noted in section 1.3.2 of this report, there are internationally recognised specifications for enzyme preparations established by JECFA and Food Chemicals Codex, with which this enzyme would have to comply when added to food in accordance with the Code or sold for use in food.

There is also a Codex guideline, *Guidelines on Substances used as Processing Aids* (CAC/GL 75-2010), which sets out general principles for the safe use of substances used as processing aids, including that substances used as processing aids shall be used under conditions of GMP (see section 1.4.1 of this report).

- **the desirability of an efficient and internationally competitive food industry**

Australia and New Zealand will remain competitive with international markets where approval for the use of the enzyme is granted. This will also help foster continued innovation and improvements in food manufacturing techniques and processes.

The conclusion of the risk and technical assessment is that there are no public health and safety concerns associated with the proposed use of this enzyme as a processing aid. If approved, Australian and New Zealand food industries will have the option to use this enzyme for the applications proposed by the applicant. Ultimately, the food industry will make their own economic decisions, taking into account the costs and benefits of using the new enzyme, to determine if it is of benefit to their particular business.

- **the promotion of fair trading in food**

No issues were identified for this application relevant to this objective.

- **any written policy guidelines formulated by the Food Ministers' Meeting**

The Ministerial Policy Guideline *Addition to Food of Substances other than Vitamins and Minerals*[2] includes specific order policy principles for substances added to achieve a solely technological function, such as processing aids. These specific order policy principles state that permission should be granted where:

- the purpose for adding the substance can be articulated clearly by the manufacturer as achieving a solely technological function (i.e. the 'stated purpose')

[2] https://www.foodregulation.gov.au/resources/publications/policy-guideline-addition-substances-other-vitamins-and-minerals https://foodregulation.gov.au/internet/fr/publishing.nsf/Content/publication-Policy-Guideline-on-the-Addition-of-Substances-other-than-Vitamins-and-Minerals

- the addition of the substance to food is safe for human consumption
- the amounts added are consistent with achieving the technological function
- the substance is added in a quantity and a form which is consistent with delivering the stated purpose
- no nutrition, health or related claims are to be made in regard to the substance.

FSANZ determined that permitting the proposed use of this enzyme would be consistent with these specific order policy principles for 'technological function'. All other relevant requirements of the policy guideline would be similarly met.

3 Draft variation

The draft variation to the Code is at Attachment A and is intended to take effect on gazettal.

A draft explanatory statement is at Attachment B. An explanatory statement is required to accompany an instrument if it is lodged on the Federal Register of Legislation.

A. Draft variation to the Australia New Zealand Food Standards Code
B. Draft Explanatory Statement

4 References

EFSA (2021). Scientific Opinion on the safety evaluation of the food enzyme D-psicose 3-epimerase from the genetically modified *Escherichia coli* strain K-12 W3110 (pWKLP) (EFSA Panel on Food Contact Materials, Enzymes and Processing Aids/CEP) (Question no: EFSA-Q-2019-00445; adopted 24 March 2021 by European Food Safety Authority). EFSA J 19(4):6565 (19pp). DOI:10.2903/j.efsa.2021.6565. Available at: https://www.efsa.europa.eu/en/efsajournal/pub/6565

EFSA (2025). Safety evaluation of the food enzyme D-psicose 3-epimerase from the genetically modified *Escherichia coli* strain K-12 W3110-TKO CDX-088 (EFSA Panel on Food Enzymes/FEZ) (Question no: EFSA-Q-2024-00310; adopted: 11 September 2025 by European Food Safety Authority). EFSA J 23(10):9666 (10pp). DOI:10.2903/j.efsa.2025.9666. Available at: https://www.efsa.europa.eu/en/efsajournal/pub/9666.

Attachment A – Draft variation to the Australia New Zealand Food Standards Code

Food Standards (Application A1354 – D-psicose 3-epimerase, immobilised, from *Escherichia coli* K-12 (gene donor: *Desmospora* sp. 8437) for use as a processing aid) Variation

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The Board of Food Standards Australia New Zealand gives notice of the making of this variation under section 92 of the *Food Standards Australia New Zealand Act 1991*. The variation commences on the date specified in clause 3 of this variation.

Dated [To be completed by the Delegate]

[Name and position of Delegate]
Delegate of the Board of Food Standards Australia New Zealand

Note:

This variation will be published in the Commonwealth of Australia Gazette No. FSC XX on XX Month 20XX. This means that this date is the gazettal date for the purposes of clause 3 of the variation.

1 Name

This instrument is the *Food Standards (Application A1354 – D-psicose 3-epimerase, immobilised, from* Escherichia coli *K-12 (gene donor:* Desmospora *sp. 8437) for use as a processing aid) Variation*.

2 Variation to a Standard in the *Australia New Zealand Food Standards Code*

The Schedule varies a Standard in the *Australia New Zealand Food Standards Code*.

3 Commencement

The variation commences on the date of gazettal.

Schedule

Schedule 18—Processing aids

[1] Subsection S18—9(3) (table)

Insert:

D-psicose 3-epimerase, immobilised, (EC 5.1.3.30) sourced from *Escherichia coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437	For use in the manufacture of D-allulose.	GMP

Attachment B – Draft Explanatory Statement

DRAFT EXPLANATORY STATEMENT

Food Standards Australia New Zealand Act 1991

Food Standards (Application A1354 - D-psicose 3-epimerase, immobilised, from* Escherichia coli *K-12 (gene donor:* Desmospora *sp. 8437) for use as a processing aid) Variation

1. Authority

Section 13 of the *Food Standards Australia New Zealand Act 1991* (the FSANZ Act) provides that the functions of Food Standards Australia New Zealand (the Authority) include the development of standards and variations of standards for inclusion in the *Australia New Zealand Food Standards Code* (the Code).

Division 1 of Part 3 of the FSANZ Act specifies that the Authority may accept applications for the development or variation of food regulatory measures, including standards. This Division also stipulates the procedure for considering an application for the development or variation of food regulatory measures.

The Authority accepted Application A1354 which seeks to permit the use of the immobilised enzyme D-psicose 3-epimerase, produced by *Escherichia coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437 as a processing aid to epimerise D-fructose to produce D-allulose, a low-energy sugar substitute for conventional sugar ingredients, particularly sucrose. The Authority considered the Application in accordance with Division 1 of Part 3 and has prepared a draft variation - the *Food Standards (Application A1354 - D-psicose 3-epimerase, immobilised, from* Escherichia coli *K-12 (gene donor:* Desmospora *sp. 8437) for use as a processing aid) Variation* (the draft variation).

2. Variation will be a legislative instrument

If approved, the draft variation would be a legislative instrument for the purposes of the *Legislation Act 2003* (see section 94 of the FSANZ Act) and be publicly available on the Federal Register of Legislation (www.legislation.gov.au).

If approved, this instrument would not be subject to the disallowance or sunsetting provisions of the *Legislation Act 2003.* Subsections 44(1) and 54(1) of that Act provide that a legislative instrument is not disallowable or subject to sunsetting if the enabling legislation for the instrument (in this case, the FSANZ Act): (a) facilitates the establishment or operation of an intergovernmental scheme involving the Commonwealth and one or more States; and (b) authorises the instrument to be made for the purposes of the scheme. Regulation 11 of the *Legislation (Exemptions and other Matters) Regulation 2015* also exempts from sunsetting legislative instruments a primary purpose of which is to give effect to an international obligation of Australia.

The FSANZ Act gives effect to an intergovernmental agreement (the Food Regulation Agreement) and facilitates the establishment or operation of an intergovernmental scheme (national uniform food regulation). That Act also gives effect to Australia's obligations under an international agreement between Australia and New Zealand. For these purposes, the Act establishes the Authority to develop food standards for consideration and endorsement by the Food Ministers Meeting (FMM). The FMM is established under the Food Regulation Agreement and the international agreement between Australia and New Zealand, and consists of New Zealand, Commonwealth and State/Territory members. If endorsed by the FMM, the food standards on gazettal and registration are incorporated into and become part

of Commonwealth, State and Territory and New Zealand food laws. These standards or instruments are then administered, applied and enforced by these jurisdictions' regulators as part of those food laws.

3. Purpose

The Authority has prepared a draft variation amending the table to subsection S18—9(3) in Schedule 18 of the Code to permit the use, in accordance with the Code, of the immobilised enzyme D-psicose 3-epimerase (EC 5.1.3.30), produced by *Escherichia coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437, as a processing aid to catalyse the epimerisation of D-fructose to produce D-allulose. If the draft variation is approved, this permission would be subject to the condition that the maximum permitted level or amount of the enzyme that may be present in the food must be consistent with good manufacturing practice (GMP).

4. Documents incorporated by reference

The draft variation does not incorporate any documents by reference.

However, existing provisions of the Code incorporate documents by reference that would prescribe identity and purity specifications for the processing aid to be permitted by the draft variation (if approved). Section 1.1.1—15 of the Code requires substances used as processing aids to comply with any relevant identity and purity specifications listed in Schedule 3 of the Code when added to food in accordance with the Code or sold for use in food. Section S3—2 of Schedule 3 incorporates by reference the specifications listed in the Joint FAO/WHO Expert Committee on Food Additives (JECFA) Compendium of Food Additive Specifications (FAO/WHO 2025) and the United States Pharmacopeial Convention (2024) Food Chemicals Codex (14th edition). These include general specifications for the identity and purity parameters of enzyme preparations used in food processing.

5. Consultation

In accordance with the procedure in Division 1 of Part 3 of the FSANZ Act, the Authority's consideration of Application A1354 will include one round of public consultation following an assessment and the preparation of a draft variation and associated assessment summary. A call for submissions (including the draft variation) will be open for a 6-week consultation period.

A regulation impact statement (RIS) has not been prepared. This is because applications relating to permitting the use of processing aids that have been determined to be safe are considered to be minor and deregulatory in nature, as their use will be voluntary if the draft variation relating to the application is approved. Therefore, the Authority's assessment is that a RIS is not required for this application.

6. Statement of compatibility with human rights

If approved, this instrument would be exempt from the requirements for a statement of compatibility with human rights as it would be a non-disallowable instrument under section 44 of the *Legislation Act 2003*.

7. Variation

References to 'variation' in this section are references to the draft variation.

Clause 1 of the variation provides that the name of the variation is the *Food Standards*

(Application A1354 - D-psicose 3-epimerase, immobilised, from Escherichia coli *K-12 (gene donor:* Desmospora *sp. 8437) for use as a processing aid) Variation.*

Clause 2 of the variation provides that the Code is amended by the Schedule to the variation.

Clause 3 of the variation provides that the variation will commence on the date of gazettal of the instrument.

Schedule to the variation

Item [1] of the Schedule to the variation would insert a new entry, in alphabetical order, into the table to subsection S18—9(3) of the Code.

The new entry would consist of the following enzyme in column 1 of the table:

- D-psicose 3-epimerase, immobilised, (EC 5.1.3.30) sourced from *Escherichia coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437

The permitted technological purpose for this enzyme would be prescribed in column 2 of the table

- For use in the manufacture of D-allulose

The permission would be subject to the condition, as prescribed in column 3 of the table, that the maximum permitted level or amount of this enzyme that may be present in the food must be consistent with GMP.

If approved, the effect of the proposed amendment would be to permit the proposed use of the immobilised enzyme D-psicose 3-epimerase (EC 5.1.3.30) *Escherichia coli* K-12 containing the D-psicose 3-epimerase gene from *Desmospora* sp. 8437 as a processing aid in accordance with the Code.