

Comments from the Victorian Department of Health, the Victorian Department of Jobs, Precincts and Regions, and PrimeSafe.

Due date of submission – 13 April 2022

The Victorian Departments of Health and Jobs, Precincts and Regions (the departments) and PrimeSafe welcome the opportunity to respond to this application to amend the Australia New Zealand Food Standards Code (the Code).

Application A1215 – *Cetylpyridinium chloride (CPC) as a processing aid (antimicrobial treatment)* seeks to permit the use of CPC as an antimicrobial treatment for the surface of raw poultry.

From the Food Standards Australia New Zealand (FSANZ) Assessment report it is understood that:

- The applicant, Safe Foods Corporation, markets an aqueous antimicrobial solution containing CPC (the active constituent) and propylene glycol (humectant/wetting agent) which is applied at poultry processing premises either by spraying or dipping poultry carcasses or pieces in diluted solution.
- CPC meets the definition of a processing aid in the Code as the antimicrobial function is performed during processing and there is no technological function in the food for sale.
- CPC is approved for use on raw poultry carcasses in the United States of America and Canada, subject to certain conditions of use. However, CPC has not yet been approved for use in Europe, with the European Food Safety Authority (EFSA) requesting additional data from the Applicant related to bacterial resistance and environmental concerns.
- The technical assessment conducted by FSANZ found the application of CPC to the surface of skin-on raw poultry at levels ranging from 0.1 to 1.0% (w/v) was effective at reducing the prevalence and levels of microorganisms.
- Based on Confidential Commercial Information provided by the Applicant, FSANZ determined that CPC does not introduce an unacceptable risk of the development of antimicrobial resistance in six tested pathogens (*Salmonella Typhimurium*, *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Listeria monocytogenes* and *Campylobacter jejuni*).
- FSANZ concluded that the proposed use of CPC is technologically justified and that no public health or safety concerns were identified with either CPC or propylene glycol at the proposed usage levels.
- A draft variation prepared by FSANZ proposes to permit the use of CPC for raw poultry meat with skin attached under the following conditions:
 - i) the maximum level of CPC in poultry skin does not exceed 13.4mg per kg;
 - ii) the level of CPC in the wash solution does not exceed 1% w/v; and
 - iii) that the raw poultry meat is rinsed in potable water following CPC treatment.

The departments and PrimeSafe recognise the important role of antimicrobial agents in reducing pathogen contamination and foodborne illness where evidence suggests use is efficacious and does not introduce unacceptable deleterious effects. As noted by FSANZ, exposure to antimicrobial treatments has been linked to the development of antibiotic-resistant mutations in human pathogens. Evidence also suggests the potential for acquired tolerance to the antimicrobial treatment of exposure, which may impact future sanitation performance and pathogen management¹. However, the risk of such an effect as a consequence of CPC use could not be assessed by the departments and PrimeSafe in the current Application due to the limited information provided. As noted previously in our comments to Application A1214, while we recognise the need for businesses to maintain confidentiality over commercially proprietary information, a balance needs to be achieved that does not compromise independent review processes. This is now a recurring issue which is likely to be relevant to future applications, and we would welcome further discussion with FSANZ regarding opportunities to better support appropriate information sharing in such scenarios.

We also query the reason that a minimum concentration of CPC has not been set given exposure to sub-lethal concentrations of antimicrobial agents is a risk factor for the development of acquired tolerance to the exposed compound and cross-resistance to therapeutic antibiotics¹.

While FSANZ did not identify any health and safety concerns with the use of CPC under the proposed conditions, it is not clear whether the assessment considered end use application (whereby the consumer cooks the raw poultry meat) and any safety risks related to the heat stability of CPC. Quaternary ammonium compounds are known to degrade at elevated temperatures by a Hoffman elimination. In the case of CPC, this degradation occurs at around 130°C (i.e., below most cooking temperatures) to form hexadecane and pyridine hydrochloride, the latter of which may cause an allergic reaction, particularly among individual with asthma. We seek further information from FSANZ on this matter.

The departments and PrimeSafe recognise the technological justification for CPC in raw poultry processing, although noting it would not replace the requirement for chlorinated water in poultry processing in Victoria as outlined in *Australian Standard AS 4465:2005 Australian Standard for Construction of Premises and Hygienic Production of Poultry Meat for Human Consumption – Victoria*. On this basis, we support the progression of Application A1215, contingent on the provision of further information from FSANZ to address the health and safety concerns outlined above.

¹ Rhouma, M., Romero-Barrios, P., Gaucher, M.L. and Bhachoo, S., 2021. Antimicrobial resistance associated with the use of antimicrobial processing aids during poultry processing operations: cause for concern?. *Critical Reviews in Food Science and Nutrition*, 61(19), pp.3279-3296.