

CONSULTATION ON DRAFT FOOD (AMENDMENT NO. X) REGULATIONS 2022

Aim

- 1 The Singapore Food Agency (SFA) is seeking feedback from the food industry (local meat importers and licensees operating slaughterhouses and meat processing establishments, as well as interested parties) on the draft Food (Amendment No. X) Regulations 2022 concerning provisions for the use of Pathogen Reduction Treatments (PRTs), which is targeted to come into effect in the third quarter of 2022.

Summary of Amendments

- 2 The draft Food (Amendment No. X) Regulations 2022 contains amendments to the Food Regulations to permit the use of PRTs on meat, with accompanying conditions.
- 3 A detailed description of the proposed changes can be found in the **ANNEX**. The legal text of the amendments can be downloaded from SFA's website at:

<http://www.sfa.gov.sg/legislation> (select "Sale of Food Act", then click on draft Food (Amendment No. X) Regulations 2022)
- 4 For more consumer information on PRTs, please refer to the [Risk-at-a-Glance article](#) on the SFA website.

Request for comments

- 5 SFA invites views and comments on the draft Food (Amendment No. X) Regulations 2022. All submissions should be clearly and concisely written and should provide a reasoned explanation for any proposed revisions.
- 6 Submissions should reach SFA no later than 6:00 p.m. (Singapore time; UTC+8), 9 April 2022, through email, to the following address: herman_teo@sfa.gov.sg.

PROPOSED AMENDMENTS TO THE FOOD REGULATIONS

1 SFA proposes to include, in the Food Regulations, provisions to allow the use of Pathogen Reduction Treatments (PRTs) on meat.

2 Pathogen Reduction Treatment (PRT) will be defined as “any antimicrobial substance that when applied to food, reduces the food’s microbial load”. PRTs include chemical and biological substances, such as organic acids, oxidising agents, quaternary ammonium compounds and proteins, and are typically used in the form of a rinse, dip, spray or wash on carcasses and meat cuts at various points in the slaughterhouse or meat cutting plant.

3 SFA recognises that PRTs, when used properly, reduce the concentration of pathogenic microbes on meat. There is clear scientific evidence that PRTs are an efficacious additional food safety measure that the food industry can utilise to improve the safety of meat. Codex Alimentarius’ “Guidelines for the Control of on *Campylobacter* and *Salmonella* in Chicken Meat (CAC/GL 78/2011)” recommends the use of certain PRTs as a risk mitigation step.

4 Despite the benefits of using PRTs, there is potential for misuse, for example, use of unsafe substances as PRTs, and the possible substitution of good hygiene practices, such as using PRTs to:

- a) decontaminate spoilt meat;
- b) clean meat that has been contaminated with faecal material; and
- c) hide poor animal farming and slaughterhouse hygiene practices that would otherwise result in high levels of microbial contamination.

5 Therefore, SFA will only allow the application of the PRTs listed in Table 1 under strict conditions stipulated below:

- a) PRTs may only be used on raw meat that has not been salted, marinated, preserved, or undergone any other form of processing. This applies to both imported meat as well as local production.
- b) Specifically, for local production, PRTs may only be used by:
 - i. a processing establishment licenced under the Wholesome Meat and Fish Act to debone or cut meat; or
 - ii. a slaughter-house licenced under the Wholesome Meat and Fish Act.
- c) PRTs are not used to make contaminated meatⁱ fit for human consumption
- d) The following details for the use of the pathogen reduction treatment needs to be recorded and the records kept for at least 6 months after the date of use:
 - i. the type and amount of PRT used.
 - ii. the stage where the PRT is used in the process flow of the processing establishment or slaughter-house mentioned in paragraph (b) above.
 - iii. the date of use.

TABLE 1
PATHOGEN REDUCTION TREATMENTS IN MEAT AND
THEIR MAXIMUM PERMITTED LEVELS

| <i>First column</i> | <i>Second column</i> | <i>Third column</i> | <i>Fourth column</i> |
|--|---|--|--|
| <i>Pathogen reduction treatment</i> | <i>Maximum amount (ppm) for a carcass (the entire carcass of an animal, whether before or after evisceration)</i> | <i>Maximum amount (ppm) for a muscle cut (any meat cut from a carcass)</i> | <i>Maximum amount (ppm) for an offal (a non-skeletal muscle organ)</i> |
| 1. 1,3-dibromo-5,5-dimethylhydantoin | 900 (as available bromine) | 900 (as available bromine) | 900 (as available bromine) |
| 2. Acetic acid | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 3. Acidified sodium chlorite | 1,200 (for sodium chlorite) and 30 (for chlorine dioxide) | 1,200 (for sodium chlorite) and 30 (for chlorine dioxide) | 1,200 (for sodium chlorite) and 30 (for chlorine dioxide) |
| 4. Ammonium hydroxide | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 5. Calcium hypochlorite | 50 (as available chlorine) | 20 (as available chlorine) | 50 (as available chlorine) |
| 6. Cetylpyridinium chloride solution, with or without propylene glycol | 8,000 | 8,000 | 8,000 |
| 7. Chlorine Dioxide | 3 | 3 | 3 |
| 8. Citric acid | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 9. Ethyl Alcohol | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |

| <i>First column</i> | <i>Second column</i> | <i>Third column</i> | <i>Fourth column</i> |
|--|---|--|--|
| <i>Pathogen reduction treatment</i> | <i>Maximum amount (ppm) for a carcass (the entire carcass of an animal, whether before or after evisceration)</i> | <i>Maximum amount (ppm) for a muscle cut (any meat cut from a carcass)</i> | <i>Maximum amount (ppm) for an offal (a non-skeletal muscle organ)</i> |
| 10. Hydrochloric acid | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 11. Hypobromous acid | 900 (as available bromine) | 900 (as available bromine) | 900 (as available bromine) |
| 12. Lactic acid | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 13. Lactoferrin | 20,000 | 20,000 | 20,000 |
| 14. Ozone | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 15. Peroxyacetic acid and hydrogen peroxide, with or without 1-hydroxyethylidene-1, 1-diphosphonic acid, acetic acid or sulfuric acid or octanoic acid | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 16. Potassium hydroxide | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 17. Sodium hydroxide | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 18. Sodium hypochlorite | 50 (as available chlorine) | 20 (as available chlorine) | 50 (as available chlorine) |
| 19. Sodium sulphate | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |

| <i>First column</i> | <i>Second column</i> | <i>Third column</i> | <i>Fourth column</i> |
|-------------------------------------|---|--|--|
| <i>Pathogen reduction treatment</i> | <i>Maximum amount (ppm) for a carcass (the entire carcass of an animal, whether before or after evisceration)</i> | <i>Maximum amount (ppm) for a muscle cut (any meat cut from a carcass)</i> | <i>Maximum amount (ppm) for an offal (a non-skeletal muscle organ)</i> |
| 20. Sulphuric acid | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |
| 21. Trisodium Phosphate | Good manufacturing practice | Good manufacturing practice | Good manufacturing practice |

6 The direct application of PRT on raw minced meat or chopped meat (as defined under Regulation 64(1)) will not be permitted. However, SFA recognises that permitted PRTs may be used on the raw meat (listed in Table 1) that is used to make minced or chopped meat. Consequently, PRTs may be carried over into the minced or chopped meat. Therefore, amendments are proposed to be made to Regulation 64 to allow the presence of permitted PRTs in minced or chopped meat as a result of carryover from usage on raw meat.

ⁱ Contaminated meat includes meat –

- (a) that has come into contact with any unclean surface;
- (b) that after evisceration, remains visibly mixed with faeces; or
- (c) of a diseased animal.