EXPORT OF MILK AND MILK PRODUCTS TO INDIA - 8775EHC

NOTES FOR THE GUIDANCE OF THE OFFICIAL VETERINARIAN AND THE EXPORTER

ASSOCIATED DOCUMENTS: 8775EHC and 8775 Declaration.

1. SCOPE OF THE CERTIFICATE

Export health certificate 8775EHC may be used for the export of milk and milk products from the United Kingdom to India.

To support certification of relevant health attestations in 8775EHC there is a template **manufacturer's declaration (8775 Declaration)** that must be signed by the responsible person in the manufacturing establishment and used as evidence to certify relevant attestation by the certifying OV.

The original/copy of the manufacturer's declaration must be retained by the OV and exporter for their records.

The manufacturer's declaration functions to support the OV with certification of the relevant health attestations and therefore **should not be sent with the EHC to India.**

It is a supporting document **for internal use only.**

2. CERTIFICATION BY AN OFFICIAL VETERINARIAN (OV)

In Great Britain, this certificate may be signed by a Veterinary Officer of the Department or by an authorised Official Veterinarian (OV) appointed to the appropriate panel for export purposes by the Department for Environment, Food and Rural Affairs (Defra), the Scottish Government or the Welsh Government, or who holds the appropriate Official Controls Qualification (Veterinary) (OCQ(V)) authorisation.

In Northern Ireland, this certificate may be signed by an Authorised Veterinary Inspector (AVI) appointed as an OV to the appropriate export panel for export purposes by the Department of Agriculture, Environment and Rural Affairs (DAERA).

OVs must sign and stamp the health certificate with the OV stamp in any ink colour **OTHER THAN BLACK.**

A certified copy of the completed certificate must be sent to the Animal Plant and Health Agency (APHA) Centre for International Trade at Carlisle within seven days of signing, or in the case of Northern Ireland to DAERA, Dundonald House, Belfast.

The OV should keep a copy for his/her own records.

3. APPROVED PORTS FOR IMPORT OF HIGH-RISK FOODS INTO INDIA

63c14b169deebOrder_on.pdf (fssai.gov.in)

4. COMPETENT AUTHORITY

Box 2. Refers

2.1 has been prepopulated with 'DEFRA' as the overall competent authority.

2.2 to 2.5 TO BE PREPOPULATED BY ISSUING OFFICE:

i) In Great Britain, the contact details of APHA should be entered;

ii) In Northern Ireland, **DAERA**'s details should be entered.

5. CONSIGNMENT DETAILS

Box 4. Quantity & 12 c) Number/ Net Weight of Packages
This refers to gross quantity **(see 12c) below, which provides for more details).**
E.g.

100kg at **4.**, with
12 c) detailing: **10 boxes of 10 x 1kg packs**

Box 12 a)
A separate schedule may be used to identify the products certified if there are not enough rows in box 12 a) of 8775EHC.

The schedule must contain the same information as that required in box 12 a), and the relevant sub-boxes 12 a), b), c) and d) must be annotated "See attached schedule". Each page of the schedule must bear a page number and the health certificate reference number and must be signed, dated and stamped by the Official Veterinarian (OV).

The schedule must be stapled inside the health certificate and the OV should "fan" and stamp over the pages of the schedule and certificate. The top stapled corner of the schedule and certificate should be folded over and stamped also.

Any blank spaces in the schedule or in the boxes in 8775EHC must be deleted with diagonal lines.

Box 12 b) (ii)
Approval numbers of the establishment(s) refers to the UK approval or registration number granted by the relevant UK Competent authority.

Box 12 b) (iii)
Enter the date when the establishment/s was/were last confirmed as approved, following an inspection visit by their competent authority.

Box 12 b) iv)
Enter the validity period, based on when the next approval visit is

due.
Documentary evidence should be sought and retained on file by the certifying OV.

Box 12 b) v)
Enter the name of the local competent authority that oversees the establishment.

Box 12 c) Number of packages
Enter the number of individual packages within each box/carton/pallet, e.g. **25 pouches per carton**

Box 12 c) Net Weight
Enter the weight of each package, e.g., **2kg per pouch.**

6. NUMBERING

Ignore the absence of clause 13. between 12. and 14.

7. ATTESTATIONS

Bovine Spongiform Encephalopathy (BSE)- feeds ban

Paragraph 14.I.a)

may be certified on the basis of the compliance with the UK Transmissible Spongiform Encephalopathies (TSE) legislations and Regulation 999/2001 which were introduced to prevent recycling of ruminant or porcine protein back into ruminants as a means of controlling BSE. The 'feed ban' has been reinforced in the UK and most processed animal proteins have been excluded from farmed animal feed since 2001. The UK Transmissible Spongiform Encephalopathies Regulations provide the legal basis for this reinforced feed ban.

ANIMAL RENNET

Paragraph 14.I.b)

may be certified based on a declaration from the manufacturer provided there is evidence (e.g. ingredient list, production process) that animal rennet was not used in the production and processing of the product. A template of manufacturer declaration **(8775 Declaration) is attached to this guidance.**

PROCESSING AND FITNESS FOR HUMAN CONSUMTION

Paragraph 14 II. a)

This certificate requires that milk has been processed in a way to ensure destruction of the FMD virus in accordance with recommendation of Article 8.8.25 of WOAH terrestrial code, **whenever applicable (please see footnote 3 on the certificate)**.

Article 8.8.25 provides "Recommendations for importation from FMD infected countries or zones where an official control programme exists".

However, UK is free from FMD virus in accordance with the WOAH terrestrial code, therefore specific treatment to destroy the FMD virus is currently not applicable.

In regard to statement of fitness for human consumption, this may be certified on the basis of milk being processed in accordance with UK Food hygiene/safety regulations, in an establishment approved/registered by the relevant UK food safety competent authority which apply HACCP principles during processing and based on the application of the oval identification mark which demonstrate compliance with Regulations 852/2004 and 853/2004, as applicable.

HEAT TREATMENT

Paragraph 14 II b)

In relation to **heat treatment**, the dairy products must not contain raw milk and the milk must be heat treated.

Pasteurisation (or an equivalent treatment which produces a negative reaction to the alkaline phosphatase test) is deemed to be sufficient to destroy the organisms mentioned in Paragraph 14.II.b). This assumes the raw milk was produced and subsequently handled hygienically and there is no post-process contamination. A declaration confirming the heat treatment applied must be provided by the FBO, with evidence where appropriate.

Further information on the efficacy of pasteurization treatment - Some concerns have been raised about the effectiveness of pasteurisation in destroying M. avium paratuberculosis (MAP).

An FSA (Food Standards Agency) commissioned survey found MAP in approximately 2% of samples of pasteurised milk in the UK.

Whilst this indicates that MAP can survive pasteurisation, it is clear that pasteurisation significantly reduces the number of viable bacteria.

Therefore, it is essential to ensure that FBOs carry out pasteurisation correctly, and even more so to ensure that the farms from which the milk is sourced follow good hygienic practice (environmental, milking and storage hygiene).

While MAP may be secreted directly into the milk in the udder, resulting in relatively low numbers, perhaps < 10 cfu/ml, the main source is thought to be faecal contamination. The faeces of infected animals can contain > 1 X 10^8cfu/g.

Some researchers have indicated that the concentration of MAP in raw milk could be as high as 10^4cfu/ml due to faecal contamination. Others have suggested that a MAP concentration of 10^6 CFU/ml should

be used when modelling MAP destruction for safety reasons.

This demonstrates the importance of good hygienic practice, especially if there is clinical evidence of disease on the farm.

Certification/declaration from the supplying farms/FBOs to the effect that good environmental, milking and storage hygiene practice is being followed and familiarity of the process at the processing FBOs may be used to support certification of the paragraph.

Under experimental conditions, a longer holding period at 72°C proved to be more effective in inactivating MAP than a higher pasteurisation temperature. Of the three strains studied, only one strain was isolated from milk heated at 72°C for 20 seconds and none of the strains was isolated from milk heated at 72°C for 25 seconds. These findings suggest that **the duration of heating is more important for the inactivation of MAP in milk than the intensity of heating.**

If the product has been subjected to heat treatment for at least 25 seconds, then the declaration/certification from the farm may be dispensed with.

TREATMENT WITH PERFORMANCE DRUGS

Paragraphs 14.II.c) and 14.II.d)

may be certified as it is illegal in the UK to administer bovine growth hormone (BGH), bovine somatropin hormone (BST), or estrogenic hormone treatment to food-producing animals in the United Kingdom.

BACTERIAL TOXINS

Paragraphs 14.II.e) refers

Additional tests for the bacterial toxins mentioned should not be required as long as the requirements of the UK Food Safety Act and the UK Food Hygiene Regulations 2006 (which implement the Food Hygiene Regulations 853/2004 and 852/2004) are complied with, and cross-contamination post-process is avoided.

In the case of preformed toxins, the certifying Official Veterinarian must ensure that HACCP plans in the whole food chain are observed, which should prevent growth of the organisms mentioned and production of toxins. If this is not the case, further investigation, which includes monitoring of the organisms mentioned and/or tests for the toxins, is required.

Currently, GB/NI levels have only been established for (coagulase positive) Staphylococcus aureus, where levels over 10^5cfu/g trigger investigation for their enterotoxin.

If levels as high as this are obtained, the batch must not be certified for export to India.

Neither Codex nor GB/NI have any thresholds for Bacillus cereus, Clostridium perfringens or Clostridium botulinum or

their toxins. However, the Health Protection Agency (HPA) (now Public Health England) has provided guidance on preventing contamination by these toxins in Ready To Eat (RTE) products, see –
https://www.gov.uk/government/publications/ready-to-eat-foods-microbiological-safety-assessment-guidelines

An extract from this can be found in the Annex and it explains how the toxins are produced. Food Business Operators (FBOs) throughout the food chain must have taken adequate measures to prevent toxins from being formed in the milk/products they handle as absence of viable bacteria in the final product intended for export does not necessarily mean their toxins are not present. If the certifying Official Veterinarian has concerns about the hygienic standards (process hygiene criteria) at any stage in the food chain, then the certificate should not be signed. Although the UK Health Security Agency (UKHSA) Laboratory at Colindale is able to test the final product for toxins – see

https://www.gov.uk/government/publications/quality-standards-microbiology-services-colindale/quality-at-laboratories-of-the-uk-health-security-agency-colindale

- their primary remit is to investigate samples associated with food poisoning incidents. A special submission form is available for this, which can be provided by UKHSA Laboratory. https://www.gov.uk/government/organisations/uk-health-security-agency

14. IV. ANNEXURE – ATTESTATION FOR FOOD SAFETY CONDITIONS

General Food Safety Standards

Paragraph 14.IV.

refers to The Food Safety and Standards (Food Product Standards and Food Additives) Regulations 2011. The regulation can be found on the website of the Indian authorities (click on the Compendium link, which provides access to the consolidated version):

https://fssai.gov.in/cms/food-safety-and-standards-regulations.php

The regulation contains standards that apply to the different categories of dairy products (e.g. flavoured milk, whey protein concentrate etc.) which are listed in points 2.1.2 to 2.1.24 of Chapter 2 of the regulation (see from page 8 of the consolidated version). For each category of dairy products, the requirements relate to:

o the composition and quality of the product,

o authorized food additives,

o contaminants, toxins and residues,

o hygiene,

o labelling,

o methods of sampling and analysis (e.g. for microbiology)

Defra and relevant authorities have reviewed the Indian legislation and have identified that GB/NI legislation is sufficiently compliant to the Food Safety and Standards (Food Product Standards and Food Additives) Regulations 2011 based on compliance to Regulations 853/2004 and 1333/2008.

However, a formal equivalence analysis has not been performed at the date of publication of this guidance as the requirements must be met for the individual category of dairy products and, therefore, it is the responsibility of the Food Business Operator (FBO) to comply with the applicable Indian standards.

Please note, the **infant milk and infant formula** standards are very detailed in the Indian regulation and exporters may wish to consider consulting the Food Safety and Standards Authority of India (FSSAI) regarding infant milk/formula composition and standards.

Therefore, the paragraph may be certified based on a manufacturer declaration confirming compliance to the Indian legislation.

The FBO should sign the manufacturer's declaration provided that there is evidence (e.g. through their production process, the product's technical data sheet or any other relevant documentation) that the product to be exported complies with the relevant standards in 2.1.2 – 2.1.24 of The Food Safety and Standards (Food Product Standards and Food Additives) Regulations 2011.

APPROVAL OF ESTABLISHMENTS

Paragraphs 14. IV. a)

may be certified on the basis of approval/registration of establishments by the relevant UK food safety competent authority and/or the application of the oval identification mark which demonstrate compliance with Regulations 852/2004 and 853/2004, as applicable.

*****Establishments must also be registered with FSSAI**

for export to India, under the provisions of the Indian Food Safety and Standards (Import) Regulations 2017.

The list of eligible UK establishments is available on India's FSSAI website at:

Registration of Foreign food Manufacturers - ReFoM (fssai.gov.in).

Exporters should contact APHA for registration forms and guidance.

HACCP AND HYGIENE

Paragraph 14.IV., b) to g)

refers to two Indian legislations, which are:

- Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations 2011; AND
- Other communicated guidelines under the provisions of the Food Safety and Standard Act 2006.

The regulations can be found on the website of the Indian authorities (click on the Compendium link, which provides access to the consolidated version):

https://fssai.gov.in/cms/food-safety-and-standards-regulations.php

Please note, there are no additional guidelines specified in relation to these matters at the date of publication of this guidance.

Defra and relevant authorities have reviewed the said Indian legislation and Regulations 178/2002, 852/2004 and 853/2004 in GB and NI are sufficiently compliant to Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations 2011 and the Food Safety and Standards Act 2006.

For instance, Article 5 to Regulation 852/2004 requires FBOs to have a HACCP system. The requirements of Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations 2011 are similar to the general hygiene requirements of Annex II to Regulation 852/2004 and in respect of milk and milk products, section IX of Annex III to Regulation 853/2004.

However, a formal equivalence analysis has not been performed by the time of publication of this guidance. Although, the requirements have been determined to be very similar and compliant in terms of HACCP, food safety control systems and preparation, packaging, storage and transport of products under good hygienic conditions.

Therefore, the paragraph may be certified based on the above and evidence of compliance to GB/NI legislation (e.g. supporting certification and/or familiarity with /audit of the HACCP plans/oval ID mark etc.) and approval/registration of the establishment.

MICROBIOLOGICAL REQUIREMENTS

Paragraph 14.IV. c) and f)

relating to **microbiological** standards, refers to Appendix B of Food Safety and Standards (Food Product Standards and Food Additives) Regulations 2011. The regulation can be found on the

website of the Indian authorities (click on the Compendium link, which provides access to the consolidated version):

https://fssai.gov.in/cms/food-safety-and-standards-regulations.php

The regulation contains microbiological standards that apply to the different categories of dairy products, which are listed in table 2A (process hygiene criteria) and table 2B (food safety criteria) of Appendix B in the mentioned regulation (see pages 758 - 767 of the consolidated version). The requirements are likely to be similar to the GB/NI microbiological criteria for foodstuffs set out in Regulation 2073/2005, although the following differences in the food safety criteria have been identified thus far, but the list may not be exhaustive:

- Infant formulae: there is a difference in the salmonella plan compared with Regulation 2073/2005.
- For Listeria *monocytogenes*, the Indian requirements cover milk powders, whey powder, and casein whereas those products are not listed in the microbiological criteria table in Annex I to Regulation 2073/2005.
- India also lists requirements for yeast/mould, Bacillus cereus and sulphite reducing Clostridia for dairy products such as milk powders, whey powders and casein, which is not considered for those products in Regulation 2073/2005.
- India sets criteria specifically on Staphylococcus aureus, whereas Regulation 2073/2005 sets limits on Staphylococcal enterotoxins.
- India sets 'Coliform Count' limits, whereas Regulation 853/2004 applicable in GB/NI sets 'Somatic Cell Count' (SCC) limits.
- The 'plate count' (aerobic plate count) in Indian legislation is set against pasteurised milk and Regulation 853/2004 is set on raw milk.

Additional testing may be required depending on the product category and it is the responsibility of the FBO to comply with the applicable Indian standards.

Therefore, the first sentence of the paragraph may be certified based on a manufacturer declaration confirming compliance to the Indian legislation provided there is evidence (e.g. by means of analysis reports and test results per batch or representative sample of each consignment) that the product meets the requirements in terms of microbiological standards listed in the tables for the product category concerned.

RESIDUES, TOXINS AND DRUGS IN MILK

Paragraph 14. IV. b)

refers to The Food Safety and Standards (Contaminants, toxins and Residues) Regulations 2011 and Codex Alimentarius. The Indian regulation can be found on the website of the Indian authorities (click on the Compendium link, which provides access to the consolidated version):

https://fssai.gov.in/cms/food-safety-and-standards-

regulations.php

Defra and relevant authorities have reviewed The Food Safety and Standards (Contaminants, toxins and Residues) Regulations 2011 and it is deemed to be very similar to Codex Alimentarius standards.

GB/NI Maximum Limits (MLs) for veterinary medicines (in Regulation 37/2010), pesticides (in Regulation 396/2005) and contaminants (heavy metals and aflatoxins – in Regulation 1881/2006) are either comparable with or exceed (are stricter than) those established by Codex Alimentarius and Indian regulation.

However, there are small differences in MRLs between India and UK, where Indian MRLs are slightly stricter, concerning the following (although the list may not be exhaustive): Acetamiprid, Enthofenprox, Glufosinate ammonium, Fenvalerate, Kresoxim methyl, Methyl Chlorophenoxy Acetic Acid (MCPA), Tebuconazole, Dihydrostreptomycin, Trimethoprim, Cephaprine, Enrofloxacin, Cefquinone sulphate, Meloxicam, Nitroxynil, Clorsulon, Copper, Arsenic and Methyl mercury.

For information, Great Britain MRLs (same as NI MRLs at time of publication of this guidance) can be found on gov.uk: https://www.gov.uk/guidance/maximum-residues-limits-mrl

Codex Alimentarius MRLs can be found on the FAO website: https://www.fao.org/fao-who-codexalimentarius/codex-texts/maximum-residue-limits/en/

Veterinary Medicines Directorate (VMD) runs an annual surveillance programme in UK to monitor the use of veterinary medicines and prohibited substances in UK food. There are summary papers which provide information on substances found in UK animal produce and what action is being taken to avoid unacceptable residues in the future, see - https://www.gov.uk/government/collections/residues-statutory-and-non-statutory-surveillance-results

This surveillance alongside appropriate farming practices and compliance with withdrawal periods should avoid unnecessary veterinary residues in milk.

GB/NI legislation also covers a much wider range of residues/contaminants/microbes/toxins than Codex. The Codex Committee on milk and milk products elaborates standards for the various products (cheese, whey, infant formula etc). The products covered by the provisions of this standard must be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969), the Code of Hygienic Practice for Milk and Milk Products (CAC/RCP 57-2004) and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice. The products must comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997) and the Codex General Standard for

Contaminants and Toxins in Food – GSCTF (CODEX STAN 193-1995).

Therefore, in light of the above, the paragraph maybe certified on the basis of compliance with GB/NI legislation (and national surveillance programme) as well as a manufacturer's declaration provided there is evidence (e.g. familiarity with /audit of the HACCP plans, analysis reports etc.) confirming the product meets the requirements in terms of residues set out in the Indian Regulation.

Additional tests for certain residues/contaminants/toxins mentioned may be required but unlikely if the requirements of the UK Food Safety Act and the Food Hygiene Regulations 2006 (which implement the GB/NI Food Hygiene Regulations 853/2004 and 852/2004) are complied with, and cross-contamination post-process is avoided.

FOOD ADDITIVES

Paragraph 14.IV., c) d) and e)

refers to Appendix A of Food Safety and Standards (Food Product Standards and Food Additives) Regulations 2011. The regulation can be found on the website of the Indian authorities (click on the Compendium link, which provides access to the consolidated version):

https://fssai.gov.in/cms/food-safety-and-standards-regulations.php

The authorized food additives for the different categories of dairy products are listed in table 1 of point IV of Appendix A of the said regulation (see from page 539 in the consolidated version).

Defra and relevant authorities have reviewed the said Indian legislation and have identified that the UK is sufficiently compliant to Appendix A of the Food Safety and Standards (Food Product Standards and Food Additives) Regulations 2011 based on compliance to Regulation 1333/2008. However, a formal equivalence analysis has not been performed at the date of publication of this guidance and therefore it is the responsibility of the FBO to comply with the applicable Indian standards.

Therefore, the paragraph may be certified based on a manufacturer's declaration provided there is evidence (e.g. through product technical data sheets or other relevant documents) confirming the product meets the requirements in terms of food additives set out in the Indian Regulation for the product category of concern.

REGULAR INSPECTION OR MONITORING CHECKS OF ESTABLISHMENTS

Paragraphs 14.IV.g)

refers to the Food Safety and Standards Act 2006. The regulation can be found on the website of the Indian

authorities (click on the Compendium link, which provides access to the consolidated version):

https://fssai.gov.in/cms/food-safety-and-standards-regulations.php

Defra and relevant authorities have reviewed the said Indian legislation and have identified that the UK is sufficiently compliant to the Food Safety and Standards Act 2006 based on compliance to regulation 2017/625. Although, a formal equivalence analysis has not been performed at the date of publication of this guidance.

Domestic establishments must be inspected by the competent authority in the UK at a regular basis in accordance with regulation 2017/625, which is similarly required by the Indian authorities. Therefore, the paragraph may be certified based on evidence of inspection by the relevant UK competent authority (e.g. Environmental Health Officer) or approval/registration of the establishment and/or application of the oval identification mark.

TRANSPORT CONDITIONS

Paragraph 14.IV. h) and i)

Not applicable options in paragraph must be struck through. OV to enter temperature required for storage and transportation.

8. DISCLAIMER

This certificate is provided on the basis of information available at the time and may not necessarily comply fully with the requirements of the importing country. It is the exporter's responsibility to check the certificate against any relevant import permit or any advice provided by the competent authority in the importing country. If these do not match, the exporter should contact the APHA Specialist Service Centre – Exports - at Carlisle, via the link below:

http://www.defra.gov.uk/ahvla-en/imports-exports/international-trade/

ANNEX

Common toxin-forming bacteria found in Ready to Eat (RTE) foods

1. *Bacillus cereus* is a diverse group of bacteria which are widespread in the environment, therefore all foods and food ingredients are likely to be contaminated by the spores of this bacterium. The spores may survive the cooking process, hence people are frequently exposed to low numbers of *B. cereus* through food without becoming ill. Minimum growth temperatures for *B. cereus* vary between 4°C and 12°C with an upper limit of around 50°C although some psychrotrophic strains occur. Not all strains produce toxins that cause either the emetic or diarrhoeal disease. The emetic and diarrhoeal toxins are distinct; the emetic toxin is pre-formed in food and is both acid and heat stable. Hence foods can be toxic in the absence of viable *B. cereus.*

2. *Clostridium perfringens* is found in the gut and thus indicates faecal contamination although spores commonly occur in the environment. It is uncommon to detect this organism in properly handled foods. Illness is caused by the ingestion of large numbers of viable vegetative bacteria, which sporulate in the lower small intestine and produces enterotoxin which causes diarrhoea. This enterotoxin is not produced in foods. Spores are common in the environment and may survive the cooking process such that low level contamination of the final product may occasionally occur. Control is achieved by preventing spore germination and growth in food and rapid cooling, adequate cold storage and adequate reheating of food are of paramount importance. *C. perfringens* will grow between 15°C and 52°C with virtually no growth below 12°C. Not all *C. Perfringens* produce enterotoxin and these non-toxigenic isolates (irrespective of the numbers of bacteria present) will not produce foodborne disease. However the presence of high numbers of non-toxigenic *C. perfringens* in a ready-to-food is unsatisfactory and indicates poor processing, particularly during cooling.

3. Illness due to *Staphylococcus aureus* is caused by enterotoxins which are preformed in food. Only some *S. aureus* contain enterotoxin genes and therefore have the potential to cause food poisoning. Although most cases of infection are due to *S. aureus*, other coagulase-positive *Staphylococcus* species (e.g. *S. intermedius*) can also produce enterotoxins and cause foodborne disease. Adequate cooking will kill the bacterium, however some protection is afforded in dry, high-fat and high-salt foods. Staphylococcal enterotoxins are heat-stable and can survive some normal cooking processes including boiling, hence active toxin can be present in the absence of viable organisms. Most coagulase-positive staphylococci grow between 7°C and 48°C with no growth at refrigeration temperatures.

Many people carry *S. aureus* and contamination of foods after processing by food handlers can occur. Toxin production starts at 10°C and storage of foods below this should prevent its development. In foods such as ripened cheeses and fermented meat products, *S. aureus* levels are highest 2–3 days after initial production and may reduce significantly during storage. If levels exceed 10^5cfu/g

at any time during the life of a food, there is a risk of sufficient enterotoxin to cause illness that will remain in the food product regardless of subsequent recoverable levels of this organism. However, cheese products sampled at retail with coagulase-positive staphylococci levels in excess of 10^3 cfu/g should be regarded with suspicion and further investigation is warranted, for example by arranging for checks of the producer's test records. If levels exceed 10^4cfu/g, isolates should be sent to the Reference Laboratory for enterotoxin gene testing. If levels exceed 10^5cfu/g in any product or if the food is associated with possible staphylococcal food poisoning, the food (if available) should be tested for enterotoxin and the strain for enterotoxin gene detection. The only food safety criterion for staphylococci in Regulation No. 2073/2005 (as amended) is for an absence of staphylococcal enterotoxins in cheese, milk powder and whey powder in product placed on the market during their shelf life. This Regulation has process hygiene criteria with limits of between 10 and 10^5 coagulase positive staphylococci/g in cheese, milk and whey powder during manufacture, and if values of >10^5cfu/g are detected, the batch should be tested for staphylococcal enterotoxins. However, since assays for enterotoxin detection are not rapid, can be insensitive for some food matrices and do not detect all types of staphylococcal enterotoxins, public health actions should not be delayed pending results.

Tests for *Clostridium botulinum* neurotoxin, staphylococcal enterotoxins, *Bacillus* toxins, are usually only available at national or international reference laboratories. Given the specialist and complex nature of some of these tests, results may not be available as quickly as primary tests. Hence public health actions and interventions should not be delayed pending the results of specialist and reference tests.