

Overview

This standard covers the skills and knowledge needed to process UHT liquid milk in food and drink manufacture and/or supply operations. Knowing how to process UHT liquid milk is important to the production of a final product that adheres to regulatory food safety and organisational quality and yield specifications. Controlling UHT liquid milk processing equipment is integral, including that which carries out heat treatment, standardisation, separation, homogenisation and/or other dairy processes. This standard is also about the skills and principles surrounding aseptic packaging in dairy processing which naturally follows UHT processing. You need to understand the methods of aseptic packaging in varying formats, and how the processing maintains sterility. You will need to know how to prepare equipment needed to process UHT liquid milk and control UHT liquid milk processing. You must also know how to address problems, work within the limits of your responsibility and adhere to regulatory standards and standard operating procedures. You must be able to apply your skills and knowledge within food safety regulations and any relevant international industry codes especially when referring to HACCP, TACCP and VACCP. This standard is for you if you work in food and drink manufacture and/or supply operations and are involved in controlling dairy processing equipment to produce UHT milks.

Performance criteria

You must be able to:

1. prepare to control UHT liquid milk processing, intermediate storage and filling/packaging equipment and associated compliance documentation
2. check plant sterility at start up and maintain during the processing stage
3. use the correct personal protective equipment
4. check organisational standard operating procedures and product recipes relating to the production of UHT milks
5. check that all necessary plant, equipment, plans for production, ingredients and services are available and fit for use
6. check documentation to ensure plant is ready for use
7. start up and control dairy processing equipment within the limits of your responsibility
8. work at a pace suitable to meet the production plan
9. make adjustments to equipment to maintain organisational product specifications
10. take representative samples for testing adhering to organisational sampling plan within the limits of your responsibility
11. evaluate faults for impact on product and processing equipment operations within the limits of your responsibility
12. make dairy product available to next stage of processing or packaging
13. prepare for changeover of product recipe or packaging in line with organisational requirements
14. prepare to handover process on shift changeover in line with organisational

requirements

15. deal with product waste in line with legislation and organisational requirements

16. liaise with relevant personnel to prepare plant for shutdown

17. process and route interphase product

18. establish and maintain effective spoken, written and electronic communication with relevant people

19. complete the necessary documentation and process to organisational requirements

Knowledge and understanding

You need to know and understand:

1. the food safety aspects of the production of UHT milk products including HACCP, TACCP and VACCP
2. the dairy sciences underpinning liquid milk as a raw material and the process used for UHT processing
3. regulatory and organisational requirements relating to the production of UHT liquid milk
4. the tools and equipment needed to process UHT liquid milk
5. health and safety aspects associated with the process
6. the personal protective equipment required when processing UHT milk and why it is important to use and wear it
7. how to maintain communication with relevant people when processing UHT liquid milk
8. organisational specifications and equipment standard operating procedures relating to the processing of UHT liquid milk
9. the importance of adhering to quality specifications when processing UHT liquid milk
10. how to control temperature when storing and processing UHT milk
11. why it is important to control temperature from milk reception to product outlet (Aseptic finished milk silo/tank)
12. why and how to control processing equipment used to process UHT liquid milk
13. how to adjust liquid UHT milk processing in response to product quality tests
14. the actions required to standardise UHT milk to organisational requirements
15. common sources of contamination during processing, how to avoid these and what might happen if this is not done
16. how to deal with product that can be re-cycled or re-worked
17. the hygienic design of a UHT plant
18. the definition of aseptic packaging
19. how Ultra-High Temperature (UHT) milk is packaged
20. the advantages of UHT milk treatments over traditional in-bottle long process sterilization techniques
21. how uperization achieves rapid milk sterilisation

22. the use of micro-filters for the sterilization of heat sensitive food products
23. the importance of hermetically sealing aseptic products
24. how hermetic sealing is carried out
25. the importance of aseptic packaging to consumer confidence
26. the importance of consumers being able to open and access products
27. additives used in UHT milk drinks (thickeners, stabilisers, emulsifiers, flavours, powders)
28. How the manufacture process and support operations use digital technologies rather than paper based systems to monitor and control production

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Control processing to produce UHT milks

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