

Overview

This standard is about the principles of homogenisation in food technology. It is about understanding the technology of homogenisation in food processing. Homogenisation may typically be carried out for; milk, mayonnaise and sauces.

This standard is for you if you need a broad understanding of the science and food technology of homogenisation. You need to understand the function of homogenisation. You need to know how homogenisation methods are carried out and the emulsification of products which results.

Performance criteria

You must be able to: See
IMPPO207S Control mixing in food manufacture

Knowledge and understanding

You need to know and understand:

- 1 the purpose of homogenisation of foods in food processing
- 2 what types of foods are normally blended by homogenisation processes
- 3 why fat droplet size is firstly reduced and then dispersed in the two liquid mixture during homogenisation
- 4 why emulsifiers are used to maintain the longer term stability of homogenised liquids
- 5 how emulsifiers work to emulsify fat within a water medium
- 6 what the commonly used emulsifiers are in the manufacture of mayonnaises
- 7 the difference between naturally occurring emulsification and assisted emulsification during the homogenisation process
- 8 how liquid droplets are broken down (size reduced) during homogenisation
- 9 how a pressure homogeniser works, its characteristics and the equipment used
- 10 what type of food materials are best suited to homogenisation in the pressure homogeniser
- 11 how a colloid mill works, its characteristics and the equipment used
- 12 what type of food materials are best suited to homogenisation in the colloid mill

Principles of homogenisation in food technology

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