IMPFT116K

Principles of flavours in food technology

Overview

This standard is about the principles of flavours in food technology. It is about understanding the substances which provide the taste and odour sensations required in food and drink.

This standard is for you if you need a broad understanding of the science and food technology of flavours like terpenoids and their application. You need to understand the function of natural flavours. You need to know how synthetic flavours are used and how mixtures of flavour compounds are important in achieving a required flavour.

Performance criteria

You must be able to: See

IMPFT112S Manage facilities for the sensory assessment of food and drink

IMPWM103S Style base wine in British wine making

IMPWM104S Blend styled wine to produce British wine

IMPWM111S Blend and stabilise fermented grape juice to produce UK wine

Knowledge and understanding

You need to know and understand:

1 how the salt flavour produced by taste is a property of electrolytes
2 how saltiness taste can relate to the type of salt; chloride, bromide, iodide, sulphate, nitrate, and its partner metal
3 how the low-molecular carbohydrates produce sweet taste
4 the structure and sweet characteristics of saccharin and aspartame
5 how acid flavour produced by taste is a property of the H+ ion derived from acids
6 how the bitterness taste is a property of alkaloids, and substances containing magnesium, calcium and ammonium ions
7 how food flavours produced by odours are composed of complex mixtures of hydrocarbons, alcohols, acids, aldehydes, ketones and esters
8 how natural food flavours can be extracted from special oil sacs in fruits and vegetables as ‘essential oils’
9 what the most common range of essential oils are and their sources
10 the structure and characteristics of the isoprene based terpenoids; monoterpenes, sesquiterpenes and diterpenes
11 why the monoterpenes are the most common flavours and have the strongest odours
12 the structure, characteristics and sources of the acyclic monoterpenes; myrcene, citral
13 the structure, characteristics and sources of the monocyclic monoterpenes; Development limonene, alpha-terpineol
14 the structure, characteristics and sources of the bicyclic monoterpenes; alpha- pinene, beta-pinene
15 what synthetic alcohols, aldehydes, ketones and esters are used for fruit flavouring
16 the structure and characteristics of the sulphur containing compounds which provide the flavour of onions and cabbage
17 the sensitivities surrounding the use and consumption of synthetic flavours

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Developed by	Improve
Version Number	2
Date Approved	November 2015
Indicative Review Date	September 2019
Validity	Current
Status	Original
Originating Organisation	Improve
Original URN	IMPFT116K
Relevant Occupations	Manufacturing technologies
Suite	Food Technology
Keywords	Food; Drink; Flavour; Salty; Sweet; Bitter; Acid