ATTACHMENT 1

Standard 1.3.1
Food Additives

Purpose

A food additive is any substance not normally consumed as a food in itself and not normally used as an ingredient of food, but which is intentionally added to a food to achieve one or more of the technological functions specified in Schedule 5. It or its by-products may remain in the food. Food additives are distinguishable from processing aids (see Standard 1.3.3) and vitamins and minerals added to food for nutritional purposes (see Standard 1.3.2).

This standard regulates the use of food additives in the production and processing of food. A food additive may only be added to food where expressly permitted in this standard. Additives can only be added to food in order to achieve an identified technological function according to Good Manufacturing Practice.

Standard 1.3.4 prescribes standards for the identity and purity of food additives.

Table of Provisions

Clauses

1 Definitions

In this standard -

technological function means a function set out in Schedule 5.

maximum permitted level means the maximum amount of additive which may be present in the food as set out in relation to that food in Schedule 1.

processed food means food which has undergone any treatment resulting in a substantial change in the original state of the food.

Editorial note:

This definition of 'processed food' is used to determine some additive permissions.

Processes such as dividing, parting, severing, boning, mincing, skinning, paring, peeling, grinding, cutting, cleaning, trimming, deep-freezing or freezing, milling or husking, packing or unpacking are not considered to result in a substantial change to the original state of the food.

2 General prohibition on the use of additives

Unless expressly permitted in this Standard, food additives must not be added to food.

3 Permitted use of additives

The additives listed by name or number in Schedules 1,2,3 and 4 may be added to a food or class of food to perform technological functions provided that:

(a) the use complies with any restrictions on use listed in Schedule 1; and
(b) the proportion of the additive does not exceed the maximum level necessary to achieve one or more technological functions under conditions of Good Manufacturing Practice (GMP).

Editorial Note

The Codex Alimentarius Commission Procedural Manual sets out the following relevant criteria for use in assessing compliance with Good Manufacturing Practice:

(a) the quantity of additive added to food shall be limited to the lowest possible level necessary to accomplish its desired effect;
(b) the quantity of the additive that becomes a component of food as a result of its use in the manufacture, processing or packaging of a food and which is not intended to accomplish any physical, or other technical effect in the finished food itself, is reduced to the extent reasonably possible; and

(c) the additive is prepared and handled in the same way as a food ingredient.

The manner in which a food is intended to be presented (eg. by the use of such quality descriptors as natural, pure, traditional etc) may affect the type and level of food additives that could be used in accordance with GMP. Similarly, the type and level of food additives used may affect the way in which a food may be presented.

4 Requirements for use of intense sweeteners

Save where otherwise expressly stated in Schedule 1 and not withstanding any specific level specified in a Schedule to this Standard, intense sweeteners may only be added to food in an amount necessary to replace the sweetness normally provided by sugars or as a flavour enhancer.

Editorial Note:

In general, the use of intense sweeteners is limited to:

1. foods meeting the definition of 'reduced joule' or 'low joule';
2. "no added sugars" food eg artificially sweetened canned fruit without added sugar; or
3. specific foods in which the use of the sweetener is in addition to sugar rather than as an alternative eg chewing gum, brewed soft drink (these foods are listed in Schedule 1 on a case-by-case basis).

Conditions relating to the use of reduced/low joule and no added sugar claims can be found in Standard 1.2.7 or in ANZFA's Code of Practice on Nutrient Claims in Food Labels and in Advertisements (Commonwealth of Australia, AGPS 1995).

5 Maximum permitted levels of additives

(1) Where a maximum level for an additive in a food is prescribed, unless otherwise stated, the level refers to the maximum amount which may be present in the food as sold or, where there are directions for preparation, when prepared for consumption according to label directions.

(2) For the purposes of this Standard:

annatto and annatto extracts shall be calculated as bixin.

benzoic acid and its salts shall be calculated as benzoic acid.

cyclamate and its salts shall be calculated as cyclohexyl-sulphamic acid.

propionic acid and its salts shall be calculated as propionic acid.

saccharin and its calcium and sodium salts shall be calculated as saccharin.

sorbic acid and its salts shall be calculated as sorbic acid.

sulphur dioxide, sulphites including bisulphites and metabisulphites shall be calculated as sulphur dioxide.

6 Additives performing the same function

(1) Where two or more additives may be added to a food for the purpose of achieving the same technological function, those additives may be used singly or in combination.

(2) Where two or more additives are used in combination to achieve the same technological function, the sum of the fractions obtained by dividing the amount of each food additive used by the maximum amount permitted for that food additive must not exceed 1.

Example

A food can have a maximum amount of 40 mg/kg of preservative X or 20 mg/kg of preservative Y. Some of the permitted combinations of the two preservatives are:

Preservative X	Fraction for Preservative X	Preservative Y	Fraction for Preservative Y	Sum of Fractions
40 mg/kg	1	nil	0	1
30 mg/kg	0.75	5 mg/kg	0.25	1
20 mg/kg	0.5	10 mg/kg	0.5	1
10 mg/kg	0.25	15 mg/kg	0.75	1
nil	0	20 mg/kg	1	1

7 Carry-over of additives

Other than by direct addition, an additive may be present in any food as a result of carry-over from an ingredient, provided that the level of the additive in the final food is no greater than would be introduced by the use of the ingredient under proper technological conditions and good manufacturing practice.

Editorial Notes

In clause 7, the ingredient can itself be a food additive.

The additive must be permitted to be present in the ingredient and must not be present in any greater quantity than permitted.

8 Food for use in preparation of another food

A food intended for use in the preparation of another food may contain any or all of the additives in a quantity permitted in the final food.

9 The addition of a garnish to food

The addition of a garnish to a food does not render that food a mixed food for the purposes of this Standard.

> **Editorial Note**
> Examples of the addition of a garnish to a food include lemon slice to fish or pepper to steak to make pepper steak.

10 Colours and their aluminium and calcium lakes

A reference to a colour listed in Schedules 1, 3 and 4 of this Standard includes a reference to the aluminium and calcium lakes prepared from that colour.

Schedule 5 Technological functions which may be performed by food additives

Functional class *sub-classes*	**Definition**
Acidity regulator acid, alkali, base, buffer, buffering agent, pH adjusting agent	alters or controls the acidity or alkalinity of a food
Anti-caking agent anti-caking agent, anti-stick agent, drying agent, dusting powder	reduces the tendency of individual food particles to adhere or improves flow characteristics
Antioxidant antioxidant, antioxidant synergist	retards or prevents the oxidative deterioration of a food
Bulking agent bulking agent, filler	contributes to the volume of a food without contributing significantly to its available energy
Colouring	adds or restores colour to foods
Colour fixative colour fixative, colour stabiliser	stabilises, retains or intensifies an existing colour of a food
Emulsifier emulsifier, Emulsifying salt, plasticiser, dispersing agent, surface active agent, surfactant, wetting agent	facilitates the formation or maintenance of an emulsion between two or more immiscible phases
Firming agent	contributes to firmness of food or interact with gelling agents to produce or strengthen a gel
Flavour enhancer flavour enhancer, flavour modifier, tenderiser	enhances the existing taste and/or odour of a food
Flavouring (excluding herbs and spices and intense sweeteners)	adds or restores odour and/or taste properties to foods
Foaming agent whipping agent, aerating agent	facilitates the formation of a homogeneous dispersion of a gaseous phase in a liquid or solid food
Gelling agent	modifies food texture through gel formation

Glazing agent coating, sealing agent, polish	imparts a coating to the external surface of a food
Humectant moisture/water retention agent, wetting agent	retards moisture loss from food or promotes the dissolution of a solid in an aqueous medium
Intense sweetener	replaces the sweetness normally provided by sugars in foods without contributing significantly to their available energy
Preservative anti-microbial preservative, anti-mycotic agent, bacteriophage control agent, chemosterilant, disinfection agent	retards or prevents the deterioration of a food by micro organisms
Propellant	gas, other than air, which expels a food from a container
Raising agent	liberates gas and thereby increase the volume of a food
Sequestrant	forms chemical complexes with metallic ions
Stabiliser binder, firming agent, water binding agent, foam stabiliser	maintains the homogeneous dispersion of two or more immiscible substances in a food
Thickener thickening agent, texturiser, bodying agent	increases the viscosity of a food