
Guidance Information on Requirement
for Food Additives (revised 01 April 2019)

Introduction

This guidance information aims to provide food traders with a better understanding of the requirements for use of food additives. It covers information on the:

- (a) functions of different types of food additives,
- (b) food additives that are permitted for use in Singapore, and
- (c) procedure to submit an application to SFA to allow the use of new food additives.

Food traders are advised to make reference to the Sale of Food Act and the Food Regulations for the actual legal text where necessary. The legislation can be downloaded from the following website:

- <http://www.sfa.gov.sg/legislation> [select Sale of Food Act]

What are Food Additives?

Food additives are chemical substances which are intentionally added to food, typically in very small known amounts, in order to serve specific technological functions. Food additives can be derived from both natural sources or artificially synthesised. However, they do not include foreign substances arising from contamination or improper handling of food.

In Singapore, additives must be assessed for safety before they can be used in food. The use of food additives in food must comply with the Food Regulations to ensure that:

- they are only used when there is a technological justification,
- their use does not mislead consumers, and
- they do not present any health risks to consumers.

Only those food additives that have undergone the necessary risk assessments by SFA will be gazetted in the Food Regulations and permitted for use in food products.

Types of Food Additives and their Functions

Food additive category	Functions	Relevant Regulations	Examples
Anti- caking agent	<ul style="list-style-type: none"> Prevents caking of powdered food such as salt 	Regulation 16	<i>silicon dioxide, calcium carbonate, magnesium stearate</i>
Anti-foaming agent	<ul style="list-style-type: none"> Prevents or reduces foaming of food 	Regulation 16A	<i>dimethyl polysiloxane</i>
Anti-oxidant	<ul style="list-style-type: none"> Delays, retards or prevents the development of rancidity or other flavour deterioration in food due to oxidation 	Regulation 17, Third Schedule	<i>butylated hydroxyanisole, calcium ascorbate, erythorbic acid</i>
Sweetening agent	<ul style="list-style-type: none"> Non-sugar, non-carbohydrate and non-polyhydric alcohol compounds that impart a sweet taste to food 	Regulation 18, Thirteenth Schedule	<i>steviol glycosides, saccharin, sucralose, neotame</i>
Chemical preservative	<ul style="list-style-type: none"> Inhibits, retards or arrests the process of fermentation, acidification or other deterioration of food caused by micro-organisms Classified as “Class I”, “Class II” or “Class III” in the Food Regulations 	Regulation 19, Fourth Schedule	<i>potassium sorbate, sodium metabisulfite</i>
Colouring matter	<ul style="list-style-type: none"> Imparts colour to food Can be natural or synthetic 	Regulation 20, Fifth Schedule	<i>red cabbage colour, tartrazine, brilliant blue FCF</i>
Emulsifier or stabiliser	<ul style="list-style-type: none"> Emulsifiers aid the formation of dispersion of 2 or more immiscible substances (e.g. oil in water) Stabilisers maintain the uniform dispersion of 2 	Regulation 21, Sixth Schedule	<i>alginic acid, carrageenan, konjac flour</i>

Food additive category	Functions	Relevant Regulations	Examples
	or more immiscible substances		
Flavouring agent	<ul style="list-style-type: none"> Imparts taste or odour, or both, to food Can be natural or synthetic 	Regulation 22	<i>vanillin, menthol, lemonol</i>
Flavour enhancer	<ul style="list-style-type: none"> Enhances or improves the flavour of food 	Regulation 23	<i>L-glutamic acid, mono-sodium L-glutamate, ethyl maltol</i>
Humectant	<ul style="list-style-type: none"> Absorbs moisture and maintains the water content of food 	Regulation 24	<i>glycerine, sorbitol</i>
Nutrient supplement	<ul style="list-style-type: none"> Any amino acid, mineral or vitamin which improves or enriches the nutrient content of food 	Regulation 25, Seventh Schedule	<i>vitamin A, vitamin B12, vitamin C</i>
Sequestrant	<ul style="list-style-type: none"> Stabilises certain characteristics (e.g, colour, flavour and texture) associated with the food by combining with metal ions in food, thereby rendering the metal ions inactive 	Regulation 26	<i>citric acid, glycine, calcium disodium EDTA</i>
Gaseous packaging agents	<ul style="list-style-type: none"> Function as aerating agents or propellant of fluid food Displaces air in sealed packages of food 	Regulation 27	<i>carbon dioxide, nitrogen</i>
General purpose food additive	<ul style="list-style-type: none"> Any substance which serves a useful and specific purpose during either the processing or packing of a food and includes processing aid. 	Regulation 28, Eighth Schedule	<i>glucono delta-lactone, shellac</i>

Purity Requirements for Food Additives that are Permitted for Use in Singapore

The import and sale of food products in Singapore are governed by the Sale of Food Act and the Food Regulations. Food additives that are permitted for use in Singapore are listed in the Food Regulations.

As required under Regulation 15(4) of the Food Regulations, food additives used in food must comply with their respective specifications as recommended by the Joint FAO/WHO Expert Committee on Food Additives (JECFA). The specifications for each food additive can be found using the search tool available on the JECFA website:

<http://www.fao.org/food/food-safety-quality/scientific-advice/jecfa/jecfa-additives/en/>

These specifications contain specific purity requirements for the food additive, which may include limits on heavy metal contaminants, among others.

In circumstances where there is an absence of JECFA specifications for a food additive, SFA refers to generally accepted specifications and purity criteria published in the British Pharmacopoeia (<http://www.pharmacopoeia.co.uk/>), European Pharmacopoeia (<http://www.edqm.eu/>) or the Food Chemical Codex (<http://www.usp.org/>).

Understanding the Food Additive Requirements in the Food Regulations

Food additives that are permitted for use in Singapore are listed in the Food Regulations. They can be found under the following parts of the Food Regulations:

- (a) Regulations 15 to 28 – These regulations stipulate the different categories of food additives that are permitted under the Food Regulations, and where specified, conditions for their use. You may refer to the section of this Guidance Information titled “Types of food additives and their functions” for more information on the technological functions of each food additive category.
- (b) Third and Fourth Schedules - Food additives listed under these 2 Schedules are only permitted for use in those food categories listed in these Schedules, and up to the maximum levels stipulated therein.
- (c) Fifth, Sixth and Eighth Schedules - Food additives listed under these Schedules may be used under Good Manufacturing Practice in food products unless prohibited by individual food standards. ‘Good Manufacturing Practice’ means that the quantity of the additive added to food shall be limited to the lowest possible level necessary to accomplish its desired effect.
- (d) Seventh Schedule – This Schedule lists the permitted nutrient supplements for use in food. These nutrient supplements may be added to foods at levels that are safe and suitable for the target group of consumers, and must comply with the requirements stated under Regulation 11(4) pertaining to addition of vitamins and

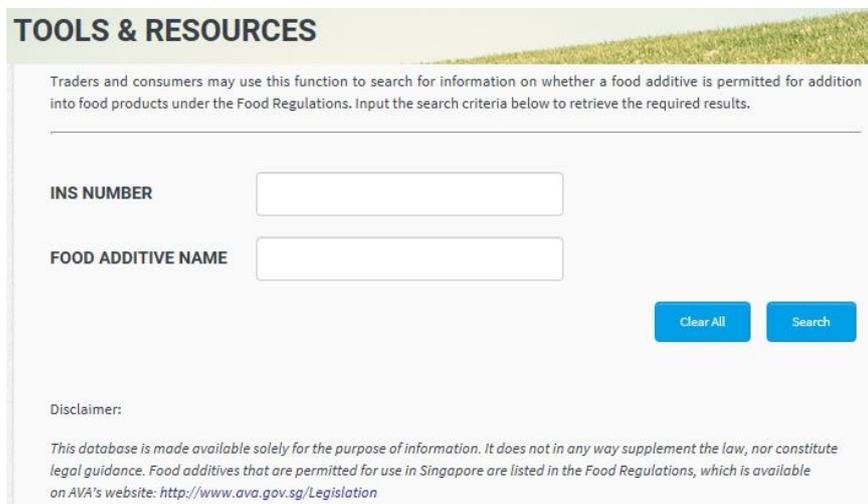
minerals to food. Nutrient supplements that are added to infant formula must comply with the requirements stated in Regulation 252.

You may download a soft copy of the Food Regulations and the list of permitted food additives from SFA's website:

- <http://www.sfa.gov.sg/legislation>
- <https://www.sfa.gov.sg/food-import-export/commercial-food-imports> (go to "Conditions related to Food Additives & Ingredients")

Food traders may also make use of the search tool available on SFA's website to check whether a particular food additive is permitted for use in food.

- <http://www.sfa.gov.sg/tools-and-resources/food-additives-search>



TOOLS & RESOURCES

Traders and consumers may use this function to search for information on whether a food additive is permitted for addition into food products under the Food Regulations. Input the search criteria below to retrieve the required results.

INS NUMBER

FOOD ADDITIVE NAME

Disclaimer:

This database is made available solely for the purpose of information. It does not in any way supplement the law, nor constitute legal guidance. Food additives that are permitted for use in Singapore are listed in the Food Regulations, which is available on AVA's website: <http://www.ava.gov.sg/Legislation>

How are New Food Additives Evaluated and Approved for Use in Singapore?

New food additives may only be considered for use in Singapore if their safety has been established, and they have been officially accepted for use in food internationally.

The following are taken into consideration when SFA evaluates an application for the use of a new food additive in Singapore:

- (a) safety of the additive as established by JECFA
- (b) maximum permitted level of the additive, taking reference from the recommendations of the Codex Alimentarius Commission (CAC) and the maximum levels permitted in major developed countries

- (c) when an additive has not been evaluated by JECFA, nor accepted for use by CAC, SFA may take reference from major developed countries such as Australia, Canada, the European Union (EU), New Zealand, Japan and the United States
- (d) potential intake of the additive by our local population based on the local dietary intake pattern

How to Apply for the Use of New Food Additives?

A food additive that is not listed in the Food Regulations is not permitted for use in food in Singapore. A food trader who intends to use a new additive has to submit an application to SFA by providing the following supporting information for SFA's review:

- (a) Chemical specifications of the new food additive
 - (b) Proposed list of food products which will be added with the new food additive and the intended levels of use
 - (c) Safety assessment of the food additive conducted by JECFA or food safety authorities of major developed countries
 - (d) When the above safety evaluations are unavailable, relevant published scientific information such as toxicity studies and human clinical trials may be considered
 - (e) International recommendations on the use of the food additive (e.g. relevant Codex standards) and/or regulatory approvals in major developed countries (Australia, Canada, New Zealand, Japan, the European Union and the United States of America).
- **How much is the application fee?**
SFA does not charge any fees for the evaluation of application for use of new food additives.
 - **How long will the application process take?**
Please refer to Annex I for the timeline for applications.

How to Declare the Presence of Food Additives on Food Labels?

All ingredients and additives used in food products have to be declared under the statement of ingredients on food labels in descending order of the proportion by weight in which they are present.

For more information on general labelling requirements and declaration of food additives, please refer to following website. SFA has also made available a 'Guide to Food Labelling and Advertisement' which can be downloaded from the SFA website

- <https://www.sfa.gov.sg/food-information/labelling-packaging-information/labelling-guidelines-for-food-importers-manufacturers>

Contact

For clarifications, please submit enquiries electronically via the online feedback form: <https://csp.sfa.gov.sg/feedback>

Annex I: Timeline for Food Additive Applications

