

**For discussion  
14 November 2006**

**Legislative Council  
Panel on Food Safety and Environmental Hygiene  
Review of the Preservatives in Food Regulations**

**Purpose**

This paper is to brief Members on the review of and proposed scope for amendment to the Preservatives in Food Regulations.

**Background**

2. In Hong Kong, most food safety related rules and regulations are contained in the Public Health and Municipal Services Ordinance (Cap.132) (“the Ordinance”). The Ordinance stipulates that all food on sale must be wholesome, unadulterated and fit for human consumption. The control on the use of preservatives and antioxidants in food is governed by the Preservatives in Food Regulations (Cap.132BD) (“the Regulations”). First enacted in 1973, the Regulations stipulate that any food being imported, manufactured for sale, or sold should only contain permitted preservatives or antioxidants and in the specified permitted proportion. “Preservative”, as defined by the Regulations, means “any substance which is capable of inhibiting, retarding or arresting the process of fermentation, acidification or other deterioration of food or of masking any of the evidence of putrefaction”. “Antioxidant” means “any substance which delays, retards or prevents the development in food of rancidity or other flavour deterioration due to oxidation”. Preservatives and antioxidants are commonly used in various kinds of food, such as meat products, juices and soft drinks. At present, there are a total of 12 permitted preservatives and 91 specified foods in Part I of the First Schedule to the Regulations, and 7 permitted antioxidants and 8 specified foods in Part II of the First Schedule. The Regulations also stipulate the conditions of use of preservatives and antioxidants and the maximum levels that the specified food may contain. The list of permitted preservatives (and their alternative forms) and permitted antioxidants are given in **Annexes 1 and 2**.

3. Over the past two decades, food preservatives and antioxidants are

increasingly important in food processing due to the increased production of prepared, processed, and convenience foods. Preservatives and antioxidants are required to prolong the shelf-life of many foods so that they can be transported over long distances, for example from one continent to another. Without preservatives and antioxidants, many foods would be prohibitively expensive and much would be wasted, not to mention the possibility of many food-related poisonings that might have been caused.

4. Although amendments were made to the Regulations from time to time (the latest one in 2005), further updating of the Regulations is necessary in order to reflect the latest development in food science and technology and keep abreast of international standards, such as the General Standard on Food Additives (GSFA) of the Codex Alimentarius Commission (Codex)<sup>1</sup>.

### **Codex General Standard on Food Additives (GSFA)**

5. The GSFA contains the list of food additives, including preservatives and antioxidants, permitted for use in foods and sets forth the conditions under which the permitted food additives can be used. Food additives in the GSFA have been evaluated by the Joint Food and Agriculture Organization /World Health Organization Expert Committee on Food Additives (JECFA)<sup>2</sup> and found acceptable for use in food. Their permitted levels of use in various foods ensure that the intake of these additives do not exceed the safety reference value.

6. In addition, food items are grouped under major food categories and sub-categories in the GSFA. This reflects an international trend of removing away from so-called “product-specific” legislation to horizontal provisions aimed at all food types. The food additive provisions for the GSFA are reviewed on a regular basis and revised as necessary in light of new scientific information on safety, changing technological need and justification for use. The most recent update of the GSFA was conducted in September 2006.

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<sup>1</sup> The Codex Alimentarius Commission was created in 1963 by the United Nations Food and Agriculture Organization (FAO) and the World Health Organization (WHO) to develop food standards, guidelines and related texts.

<sup>2</sup> Joint FAO/WHO Expert Committee on Food Additives (JECFA) is an international expert scientific committee that is administered by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO). It evaluates the safety of food additives, as well as other food hazards, since 1956. It is recognized as the international authority in the risk assessment of food hazards.

## **Objective and Proposed Direction of the Amendment**

7. The current Regulations are not in line with the Codex standards in the following major areas -

- (a) antioxidants do not include those additives which protect foodstuffs against colour changes caused by oxidation;
- (b) permitted preservatives and antioxidants under the Regulations are a simple combination of the permitted additives and the specified food items (i.e. product-specific). Similar specified foods are not grouped together to form major food categories;
- (c) the Regulations do not acknowledge the multifunctional property of additives, i.e. an additive can only be considered as either a preservative or an antioxidant but cannot be both even though it can technologically serve both functions; and
- (d) some common preservatives and antioxidants which were proven safe by JECFA and included in Codex's standards are not included in the Regulations.

In view of the above , we propose to amend the Regulations in the following areas -

- (a) amendment of the *definitions* of preservatives and antioxidants to make them in line with the corresponding definitions in the Codex documents;
- (b) introduction of a food category system based upon the food category system adopted by Codex for use in the GSFA;
- (c) combining Part I and Part II of the First Schedule to the Regulations to combine the lists of preservatives and antioxidants; and
- (d) incorporation of those preservatives and antioxidants, as well as their permitted levels of use, that are listed in the Codex GSFA into the Regulations.

8. Through the amendments, the Government aims to continue protect public health at a level which could be justified against internationally recognised risk assessment and management standards and enhance consumer confidence in food safety. The proposed amendments also aim to promote the harmonisation of local and international standards, and allow consumers to have more food varieties to choose in the market. Furthermore, the amendments also aim to improve the user-friendliness of the Regulations as stakeholders would find it easier to find out the information about a food item under a food category system.

### **Consultation**

9. The Advisory Council on Food and Environmental Hygiene was consulted on the proposed direction of the amendments in late 2005 and generally supported the proposal. Members of the trade have on various occasions expressed the need to update the Regulations. The Expert Committee on Food Safety, established under the Centre for Food Safety, discussed and agreed to the proposed direction of the amendment at its first meeting in October 2006.

### **Way Forward**

10. The Administration plans to conduct a more extensive consultation with the trade and public in end 2006 / early 2007 on the details of the proposed amendments. After finalizing the views of the trade and public, we plan to introduce the proposed legislative amendments to the Legislative Council in 2007.

### **Advice Sought**

11. Members are invited to note and comment on the Administration's proposal on the amendments of the Preservatives in Food Regulations.

**Centre for Food Safety**  
**Food and Environmental Hygiene Department**  
**Health, Welfare and Food Bureau**  
**November 2006**

**List of Permitted Preservatives under the  
Preservatives in Food Regulations**

<b>Permitted preservatives under Part I of the First Schedule</b>	<b>Alternative form of the permitted preservative under Part III of the First Schedule</b>
1. Sodium nitrate	Potassium nitrate
2. Sodium nitrite	Potassium nitrite
3. Sulphur dioxide	Sulphurous acid / sodium sulphite / sodium hydrogen sulphite / sodium metabisulphite / potassium sulphite / potassium metabisulphite / calcium sulphite / calcium hydrogen sulphite
4. Benzoic acid	Sodium benzoate / potassium benzoate / calcium benzoate
5. Methyl para-hydroxybenzoate	Methyl para-hydroxybenzoate, sodium salt
6. Ethyl para-hydroxybenzoate	Ethyl para-hydroxybenzoate, sodium salt
7. Propyl para-hydroxybenzoate	Propyl para-hydroxybenzoate, sodium salt
8. Propionic acid	Sodium propionate / calcium propionate / potassium propionate
9. Sorbic acid	Sodium sorbate / potassium sorbate / calcium sorbate
10. Diphenyl	N/A
11. Ortho-phenylphenol	Sodium ortho-phenylphenate
12. Copper carbonate	N/A

\* Apart from the First Schedule, regulation (3) of the Preservatives in Food Regulations allows the use of certain preservatives in specific food products without stipulating the permitted levels, e.g.

- The skin, but not flesh, of a banana may contain nystatin;
- Cheese, clotted cream or any canned food may contain nisin.

**List of Permitted Antioxidants under the  
Preservatives in Food Regulations**

1. Propyl gallate
2. Octyl gallate
3. Dodecyl gallate
4. Butylated hydroxyanisole (BHA)
5. Butylated hydroxytoluene (BHT)
6. Ethoxyquin
7. Ethylene Diamine Tetraacetate (EDTA)

Note:

- Propyl gallate, octyl gallate and dodecyl gallate can be used together as a mixture.
- BHA and BHT can be used together as a mixture.