Notice of Modification to the List of Permitted Food Additives with Other Generally Accepted Uses to Enable the Use of Sodium Tripolyphosphate or Sodium Hexametaphosphate Singly; a Combination of Sodium Hexametaphosphate and Sodium Carbonate; and a Combination of Sodium Tripolyphosphate, Sodium Acid Pyrophosphate and Sodium Pyrophosphate, Tetrabasic in Frozen Squid

Notice of Modification – Lists of Permitted Food Additives

Reference Number: [NOM/ADM-0013]

July 11, 2013
Notice of Modification to the *List of Permitted Food Additives with Other Generally Accepted Uses* to Enable The Use of Sodium Tripolyphosphate or Sodium Hexametaphosphate Singly; a Combination of Sodium Hexametaphosphate and Sodium Carbonate; and a Combination of Sodium Tripolyphosphate, Sodium Acid Pyrophosphate and Sodium Pyrophosphate, Tetrabasic in Frozen Squid

**Summary**

Food additives are regulated in Canada under Marketing Authorizations (MAs) issued by the Minister of Health and the *Food and Drug Regulations*. Approved food additives and their permitted conditions of use are set out in the *Lists of Permitted Food Additives* that are incorporated by reference in the MAs. A petitioner can request that Health Canada approve a new additive or a new condition of use for an already approved food additive by filing a food additive submission with the Department's Food Directorate. Health Canada uses this premarket approval process to determine whether the scientific data support the safety of food additives when used under specified conditions in foods sold in Canada.

Health Canada received a food additive submission seeking approval for the use of sodium tripolyphosphate or sodium hexametaphosphate singly; a combination of sodium hexametaphosphate and sodium carbonate; and a combination of sodium tripolyphosphate, sodium acid pyrophosphate and sodium pyrophosphate, tetrabasic to reduce thaw drip in added frozen squid. The petitioner proposes to use these phosphate additives at a total level of phosphate not to exceed 0.5% calculated as sodium phosphate, dibasic in the frozen squid. Sodium carbonate could be used up to a maximum level of use of 15% of a mixture of sodium carbonate and sodium hexametaphosphate when the total added phosphate calculated as sodium phosphate, dibasic does not exceed 0.5% in the frozen squid.

These additives are already permitted for this use at the same maximum level of use in other seafoods sold in Canada, namely: frozen lobster, frozen crab, frozen clams and frozen shrimp. Although frozen squid and these other seafoods are subject to the same compositional standard set out in section B.21.004 of the *Food and Drug Regulations* (Part B), there is no provision in the standard or the *Lists of Permitted Food Additives* for the use of any of these phosphate additives, or the combination of sodium carbonate and sodium hexametaphosphate, in frozen squid.

The results of Health Canada’s evaluation of available scientific data support the safety of these food additives when used in frozen squid as set out in the table below. Health Canada has taken into consideration that three of the additives, sodium acid pyrophosphate, sodium tripolyphosphate and sodium pyrophosphate, tetrabasic, are also permitted in frozen lobster, frozen crab, frozen clams and frozen shrimp for the purpose of reducing processing losses, and that they should be permitted in frozen squid, a similar food, for the same purpose. Therefore, Health Canada has modified the *List of Permitted Food Additives with Other Generally Accepted Uses* by adding the following entries to this list.
Notice of Modification to the *List of Permitted Food Additives with Other Generally Accepted Uses* to Enable The Use of Sodium Tripolyphosphate or Sodium Hexametaphosphate Singly; a Combination of Sodium Hexametaphosphate and Sodium Carbonate; and a Combination of Sodium Tripolyphosphate, Sodium Acid Pyrophosphate and Sodium Pyrophosphate, Tetrabasic in Frozen Squid

**Modification to the *List of Permitted Food Additives with Other Generally Accepted Uses***

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Column 1 Additive</th>
<th>Column 2 Permitted in or upon</th>
<th>Column 3 Purpose of Use</th>
<th>Column 4 Maximum Level of Use and Other Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.1.1</td>
<td>Sodium Acid Pyrophosphate</td>
<td>(2) Frozen squid</td>
<td>(2) To reduce processing losses and to reduce thaw drip</td>
<td>(2) Used in combination with sodium tripolyphosphate and sodium pyrophosphate tetrabasic, total added phosphate not to exceed 0.5% calculated as sodium phosphate, dibasic</td>
</tr>
<tr>
<td>S.3A</td>
<td>Sodium Carbonate</td>
<td>(2) In combination with sodium hexametaphosphate for use on frozen squid</td>
<td>(2) To reduce thaw drip</td>
<td>(2) 15% of the combination of sodium carbonate and sodium hexametaphosphate</td>
</tr>
<tr>
<td>S.6</td>
<td>Sodium Hexametaphosphate</td>
<td>(4) Frozen squid</td>
<td>(4) To reduce thaw drip</td>
<td>(4) 0.5% total added phosphate calculated as sodium phosphate, dibasic</td>
</tr>
<tr>
<td>S.7.1</td>
<td>Sodium Pyrophosphate, tetrabasic</td>
<td>(2) Frozen squid</td>
<td>(2) To reduce processing losses and to reduce thaw drip</td>
<td>(2) Used in combination with sodium tripolyphosphate and sodium acid pyrophosphate, total added phosphate not to exceed 0.5% calculated as sodium phosphate, dibasic</td>
</tr>
<tr>
<td>S.11</td>
<td>Sodium Tripolyphosphate</td>
<td>(3) Frozen squid</td>
<td>(3) To reduce processing losses and to reduce thaw drip</td>
<td>(3) Used singly or in combination with sodium acid pyrophosphate and sodium pyrophosphate tetrabasic, total added phosphate not to exceed 0.5% calculated as sodium phosphate, dibasic</td>
</tr>
</tbody>
</table>

In addition, a corrective modification has been made to column 4 of item S.1.1 of the English list to replace the wording “…total added pyrophosphate not to exceed” with “…total added phosphate not to exceed”. This will align the wording of the English list with the wording of the
Notice of Modification to the *List of Permitted Food Additives with Other Generally Accepted Uses* to Enable The Use of Sodium Tripolyphosphate or Sodium Hexametaphosphate Singly; a Combination of Sodium Hexametaphosphate and Sodium Carbonate; and a Combination of Sodium Tripolyphosphate, Sodium Acid Pyrophosphate and Sodium Pyrophosphate, Tetrabasic in Frozen Squid

French list as well as to the original intent of the provision. Thus, the text in column 4 of item S.1.1 has been replaced as follows:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Column 1 Additive</th>
<th>Column 2 Permitted in or Upon</th>
<th>Column 3 Purpose of Use</th>
<th>Column 4 Maximum Level of Use and Other Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.1.1</td>
<td>Sodium Acid Pyrophosphate</td>
<td>(1) Frozen fish fillets; Frozen minced fish; Frozen lobster; Frozen crab; Frozen clams; Frozen shrimp</td>
<td>(1) To reduce processing losses and to reduce thaw drip</td>
<td>(1) Used in combination with sodium tripolyphosphate and sodium pyrophosphate tetrabasic, total added phosphate not to exceed 0.5% calculated as sodium phosphate, dibasic</td>
</tr>
</tbody>
</table>

A corrective modification is also being made to column 2 of item S.3A of the French list by inserting the words “pour être utilisé sur”. This will align the French version of the list with the wording in the English and will add clarity. Thus, the text in column 2 of item S.3A of the French has been replaced as follows:

<table>
<thead>
<tr>
<th>Article</th>
<th>Colonne 1 Additifs</th>
<th>Colonne 2 Permis dans ou sur</th>
<th>Colonne 3 But de l’emploi</th>
<th>Colonne 4 Limites de tolérance et autre conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.3A</td>
<td>Carbonate de sodium</td>
<td>(1) Mélangé avec l’hexaméthaphosphate de sodium pour être utilisé sur les filets de poisson congelés, le homard congelé, le crabe congelé, les clams congelés et les crevettes congelées</td>
<td>(1) Pour empêcher de suinter en dégelant</td>
<td>(1) 15 % du mélange de carbonate de sodium et d’hexaméthaphosphate de sodium</td>
</tr>
</tbody>
</table>
Notice of Modification to the *List of Permitted Food Additives with Other Generally Accepted Uses* to Enable The Use of Sodium Tripolyphosphate or Sodium Hexametaphosphate Singly; a Combination of Sodium Hexametaphosphate and Sodium Carbonate; and a Combination of Sodium Tripolyphosphate, Sodium Acid Pyrophosphate and Sodium Pyrophosphate, Tetrabasic in Frozen Squid

**Rationale**

Health Canada’s Food Directorate has completed a pre-market safety assessment of the use of sodium tripolyphosphate or sodium hexametaphosphate singly; a combination of sodium hexametaphosphate and sodium carbonate; and a combination of sodium tripolyphosphate, sodium acid pyrophosphate and sodium pyrophosphate, tetrabasic in frozen squid. The assessment considered the toxicological, chemical and nutritional aspects of these food additives when used as requested in the food additive submission.

Sodium tripolyphosphate, sodium hexametaphosphate, sodium acid pyrophosphate, sodium pyrophosphate, tetrabasic and sodium carbonate used in foods sold in Canada must meet the food-grade specifications for these additives set out in the most recent edition of the *Food Chemicals Codex*, a compendium of standards for the purity and identity of food ingredients, including food additives, which is published by the United States Pharmacopeial Convention.

Since frozen squid is subject to a standard of composition set out in section B.21.004 of the *Food and Drug Regulations* (Part B), Health Canada consulted with the Canadian Food Inspection Agency (CFIA) and the appropriate food industry association regarding the use of these additives in frozen squid. Both organizations indicated their support.

Provision exists in the Codex Alimentarius General Standard for Food Additives (GSFA) for the use of phosphates, which includes sodium tripolyphosphate, sodium hexametaphosphate, sodium acid pyrophosphate and sodium pyrophosphate, tetrabasic, in frozen fish, fish fillets, and fish products, including molluscs, crustaceans and echinoderms at a maximum level of 2,200 mg/kg (0.22%) calculated as phosphorus (equivalent to 1.01% as sodium phosphate, dibasic). The GSFA also permits the use of sodium carbonate in semi-preserved, as well as preserved, fish and fish products, including molluscs, crustaceans and echinoderms at levels consistent with Good Manufacturing Practice (GMP).

Based on the results of the safety assessment, Health Canada’s Food Directorate considers that the data demonstrate that these phosphate additives and sodium carbonate are safe food additives under the requested conditions of use in frozen squid. The Department has therefore extended the use of these food additives as described in the above table.

**Implementation and Enforcement**

The above modifications came into force on July 11, 2013, the day on which they were published in the *List of Permitted Food Additives with Other Generally Accepted Uses*.

The Canadian Food Inspection Agency is responsible for the enforcement of the *Food and Drugs Act* and its associated regulations with respect to foods.
Notice of Modification to the List of Permitted Food Additives with Other Generally Accepted Uses to Enable The Use of Sodium Tripolyphosphate or Sodium Hexametaphosphate Singly; a Combination of Sodium Hexametaphosphate and Sodium Carbonate; and a Combination of Sodium Tripolyphosphate, Sodium Acid Pyrophosphate and Sodium Pyrophosphate, Tetrabasic in Frozen Squid

Contact Information

Health Canada's Food Directorate is committed to reviewing any new scientific information on the safety in use of any food additive, including the food additives described in this document. Anyone wishing to submit new scientific information on the use of these additives or to submit any inquiries may do so in writing, by regular mail or electronically. If you wish to contact the Food Directorate electronically, please use the words “phosphates and sodium carbonate in frozen squid” in the subject line of your e-mail.

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