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# Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents* to Enable the Use of Tamarind Gum in Various Foods

Notice of Modification – *Lists of Permitted Food Additives*

Reference Number: NOM/ADM-0113

May 8, 2018

Bureau of Chemical Safety  
Food Directorate  
Health Products and Food Branch



Canada

## Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents to Enable the Use of Tamarind Gum in Various Foods*

### Summary

Food additives are regulated in Canada under [Marketing Authorizations](#) (MAs) issued by the Minister of Health and the *Food and Drug Regulations* (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 and published on the Canada.ca website. 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 tamarind gum as an emulsifying, gelling, stabilizing or thickening agent. The foods in which it is intended to be used are the same foods, or foods that fall within the same food categories, as those to which carob bean gum (locust bean gum) may be added and at the same maximum levels of use, and (naming the fruit) jelly with pectin at a level of use consistent with good manufacturing practice.

Health Canada determined that information related to the safety and efficacy of tamarind gum supports its use as set out in the table below. Since this is a food additive that was not previously permitted for use in Canada, Health Canada published a notice of the Department's intent to enable the use of tamarind gum, titled [Health Canada's Proposal to Enable the Use of Tamarind Gum as an Emulsifying, Gelling, Stabilizing and Thickening Agent in Unstandardized Foods and Certain Standardized Foods – Reference Number: NOP/ADP-0026](#).

The proposal, which was published on August 15, 2017, was open for public comment for 110 days. No new scientific information was submitted to the Department as a result of this proposal. Since the conclusion of the evaluation remains as described in the proposal, Health Canada has modified the [List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents](#) as indicated below.

### Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents*

Item No.	Column 1 Additive	Column 2 Permitted in or Upon	Column 3 Maximum Level of Use and Other Conditions
T.2A	Tamarind Gum	(1) Cream; French dressing; Mincemeat; Mustard pickles; (naming the flavour) Milk; (naming the flavour) Partly skimmed milk; (naming the flavour) Partly skimmed milk with added milk solids; (naming the	(1) Good Manufacturing Practice

**Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents to Enable the Use of Tamarind Gum in Various Foods***

<b>Item No.</b>	<b>Column 1 Additive</b>	<b>Column 2 Permitted in or Upon</b>	<b>Column 3 Maximum Level of Use and Other Conditions</b>
		flavour) Skim milk; (naming the flavour) Skim milk with added milk solids; (naming the fruit) Jelly with pectin; Relishes; Salad dressing	
		(2) Cottage cheese; Creamed cottage cheese	(2) 0.5% in accordance with the requirements of sections B.08.051 and B.08.052
		(3) Ice cream mix	(3) 0.5% in accordance with the requirements of section B.08.061
		(4) Ice milk mix	(4) 0.5% in accordance with the requirements of section B.08.071
		(5) Calorie-reduced margarine	(5) 0.5%. If used in combination with other food additives permitted by this list in this food except gelatin, lecithin, monoglycerides, mono- and diglycerides, and sorbitan tristearate, the total amount not to exceed 0.5%
		(6) Sherbet	(6) 0.75%. If used in combination with other stabilizing agents, the total amount not to exceed 0.75%
		(7) Sour cream	(7) 0.5%. If used in combination with other food additives permitted by this list in sour cream except monoglycerides, mono- and diglycerides, and sodium phosphate dibasic, the total amount not to exceed 0.5%
		(8) Unstandardized foods	(8) Good Manufacturing Practice

**Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents to Enable the Use of Tamarind Gum in Various Foods***

<b>Item No.</b>	<b>Column 1 Additive</b>	<b>Column 2 Permitted in or Upon</b>	<b>Column 3 Maximum Level of Use and Other Conditions</b>
		(9) Cold-pack cheese food; Cold-pack cheese food with (naming the added ingredients); Cold-pack (naming the variety) cheese with (naming the added ingredients); Cream cheese; Cream cheese with (naming the added ingredients)	(9) 0.5%. If used in combination with other food additives permitted by this list in these foods, the total amount not to exceed 0.5%
		(10) Cream cheese spread; Cream cheese spread with (naming the added ingredients)	(10) 0.5%. If used in combination with other food additives permitted by this list in these foods except phosphate salts, citrate salts, tartrate salts, or sodium gluconate, the total amount not to exceed 0.5%
		(11) Processed cheese spread; Processed cheese spread with (naming the added ingredients)	(11) 0.5%. If used in combination with other food additives permitted by this list in these foods except citrate salts, lecithin, monoglycerides, mono- and diglycerides, phosphate salts, sodium gluconate, or tartrate salts, the total amount not to exceed 0.5%

The wording in Column 3 for sub-items (3), (4), (5) and (9) shown above differs from what was presented in the Notice of Proposal (NOP) and the foods that were grouped together under sub-item (9) in the NOP have been separated into three sub-items, shown above as sub-items (9), (10), and (11). The provisions however function in the same manner as proposed in the NOP.

For sub-items (3) and (4), for ice cream mix and ice milk mix respectively, it was proposed that the in-combination rule that already exists within the standards for each of these foods be expressed within the List itself, without reference to the respective standards. However, the wording in Column 3 for these foods has been changed in order to maintain consistency with the existing wording of the conditions of use for other stabilizing agents permitted in these two foods. The conditions of use for tamarind gum in ice cream mix and ice milk mix therefore refer back to their respective standards ([B.08.061](#) and [B.08.071](#)), wherein are found the in-combination rules for stabilizing agents.

## Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents* to Enable the Use of Tamarind Gum in Various Foods

For calorie-reduced margarine (sub-item 5), there is also an in-combination rule that appears within its standard. In order for this rule to also apply to tamarind gum, the in-combination rule must be slightly reworded and placed in the List itself, as was proposed. However, the proposed wording did not fully reproduce the existing in-combination rule. Although it excluded gelatin and lecithin from this rule, monoglycerides, mono- and diglycerides, and sorbitan tristearate must also be excluded. These three additives are permitted in calorie-reduced margarine (by virtue of being permitted in standardized margarine) but are not subject to this in-combination rule. This omission has been addressed in the listing shown in the table above.

With respect to the various types of standardized cheeses, as for other similar provisions in the List, the proposed in-combination rule under sub-item (9) for tamarind gum referred back to specific standards of Division 8 of the Regulations. The in-combination rules that currently appear in these cheese standards refer to each of the individual additives subject to the in-combination rule; however the standard will not be updated to refer to tamarind gum. Therefore, Health Canada's Food Directorate has reworded the in-combination rule to remove any ambiguity with respect to how the existing in-combination rule applies when tamarind gum is used. The existing in-combination rules have therefore been duplicated in the List such that reference back to the standards is not required. This was facilitated by grouping the various types of cheese into three sub-items (9), (10), and (11), as shown above.

### Consequential Modifications

As a result of enabling the use of tamarind gum in calorie-reduced margarine, sour cream and various cheese products, consequential modifications were made to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents* for consistency. A consequential change was also required for the in-combination conditions of use for xanthan gum in ice cream mix and ice milk mix. These changes do not alter how the in-combination rule operates. Specifically, the following consequential modifications were made:

- the wording of the conditions of use (under Column 3 of the List) for the following additives in calorie-reduced margarine was modified for consistency with the wording used for tamarind gum under sub-item T.2A(5), shown in the table above: acacia gum (A.1), agar (A.4), algin (A.5), ammonium carrageenan (A.8), calcium carrageenan (C.3), carob bean gum (C.14), carrageenan (C.15), furcelleran (F.1), guar gum (G.3), karaya gum (K.1), polyglycerol esters of fatty acids (P.1A), potassium carrageenan (P.7), propylene glycol alginate (P.12), sodium carrageenan (S.4), tragacanth gum (T.3), and xanthan gum (X.1). The wording is therefore: "0.5%. If used in combination with other food additives permitted by this list in this food except gelatin, lecithin, monoglycerides, mono- and diglycerides, and sorbitan tristearate, the total amount not to exceed 0.5%". This condition of use operates in the same manner as previously; it is only the wording that has changed.
- The wording of the conditions of use (under Column 3 of the List) for gellan gum (G.2) in calorie-reduced margarine was modified for consistency with the wording used for

**Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents to Enable the Use of Tamarind Gum in Various Foods***

tamarind gum under sub-item T.2A(5), shown in the table above. The wording is therefore “0.25%. If used in combination with other food additives permitted by this list in this food except gelatin, lecithin, monoglycerides, mono- and diglycerides, and sorbitan tristearate, the total amount not to exceed 0.5%”.

- the wording of the conditions of use (under Column 3 of the List) for the following additives in sour cream was modified for consistency with the wording used for tamarind gum under sub-item T.2A(7) (as shown in the table above): algin (A.5), ammonium carrageenan (A.8), calcium carrageenan (C.3), carob bean gum (C.14), carrageenan (C.15), gelatin (G.1), guar gum (G.3), pectin (P.1), potassium carrageenan (P.7), propylene glycol alginate (P.12), sodium carrageenan (S.4), and xanthan gum (X.1). The wording is therefore: “0.5%. If used in combination with other food additives permitted by this list in sour cream except monoglycerides, mono- and diglycerides, and sodium phosphate dibasic, the total amount not to exceed 0.5%. This condition of use operates in the same manner as previously; it is only the wording that has changed.
- the various standardized cheeses have been reorganized into three groups (under Column 2 of the List) and the wording of the conditions of use (under Column 3 of the List) for the following additives in various types of standardized cheese was modified for consistency with how the provision for tamarind gum has been structured under sub-items T.2A(9), (10), and (11) (as shown in the table above): ammonium carrageenan (A.8), calcium carrageenan (C.3), carob bean gum (C.14), carrageenan (C.15), gelatin (G.1), guar gum (G.3), potassium carrageenan (P.7), propylene glycol alginate (P.12), sodium carrageenan (S.4), and xanthan gum (X.1). The standardized cheeses and their wording are as shown below. The actual sub-item number for each food additive can be viewed in the List. These conditions of use function in the same manner as previously; it is only the wording that has changed for consistency throughout the List.

<b>Column 2 Permitted in or Upon</b>	<b>Column 3 Maximum Level of Use and Other Conditions</b>
(x) Cold-pack cheese food; Cold-pack cheese food with (naming the added ingredients); Cold-pack (naming the variety) cheese with (naming the added ingredients); Cream cheese; Cream cheese with (naming the added ingredients)	(x) 0.5%. If used in combination with other food additives from this list permitted in these foods, the total amount not to exceed 0.5%
(y) Cream cheese spread; Cream cheese spread with (naming the added ingredients)	(y) 0.5%. If used in combination with other food additives from this list permitted in these foods except phosphate salts, citrate salts, tartrate salts, or sodium gluconate, the total amount not to exceed 0.5%

**Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents to Enable the Use of Tamarind Gum in Various Foods***

<b>Column 2 Permitted in or Upon</b>	<b>Column 3 Maximum Level of Use and Other Conditions</b>
(z) Processed cheese spread; Processed cheese spread with (naming the added ingredients)	(z) 0.5%. If used in combination with other food additives from this list permitted in these foods except citrate salts, lecithin, monoglycerides, mono- and diglycerides, phosphate salts, sodium gluconate, or tartrate salts, the total amount not to exceed 0.5%

- the wording of the conditions of use (under Column 3 of the List) for xanthan gum in ice cream mix and ice milk mix was modified in order for each of their in-combination rules, which appear in the List as well as in their standards (B.08.061 and B.08.071, respectively), to also apply to tamarind gum and to be clear that the maximum level of use is intended to apply on the basis of the product made from the mix. The wording is as shown in the table below. This condition of use operates in the same manner as previously; it is only the wording that has changed such that the in-combination rule also applies to tamarind gum.

<b>Column 2 Permitted in or Upon</b>	<b>Column 3 Maximum Level of Use and Other Conditions</b>
(6) Ice cream mix	(6) 0.1% in the ice cream made from the mix. If used in combination with microcrystalline cellulose or other stabilizing agents or both, the total amount not to exceed 0.5% in the ice cream made from the mix
(7) Ice milk mix	(7) 0.1% in the ice milk made from the mix. If used in combination with other stabilizing agents, the total amount not to exceed 0.5% in the ice milk made from the mix

**Other Modifications**

The various food items for Irish Moss Gelose (Item No. I.1) have been removed and replaced with a reference to the food listing for carrageenan (Item No. C.15). Irish Moss Gelose is a type of carrageenan and is thus permitted in or upon the same foods as carrageenan. The removal of the food items of Irish Moss Gelose from this List is not substantive in that it does not change the food additive provisions themselves and it is the exact wording that was used for the Irish Moss Gelose provision in Table IV of Division 16, Part B, of the Regulations. It is the provisions of

**Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents* to Enable the Use of Tamarind Gum in Various Foods**

Table IV that were originally used to create the [\*List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents\*](#). The provision in the List for Irish Moss Gelose now appears as follows:

<b>Item No.</b>	<b>Column 1 Additive</b>	<b>Column 2 Permitted in or Upon</b>	<b>Column 3 Maximum Level of Use and Other Conditions</b>
I.1	Irish Moss Gelose	Same foods as listed for Carrageenan	Same levels as prescribed for Carrageenan

In the English version of the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents*, there were two maximum levels of use, mistakenly shown as “0.75% 0.5%”, listed for the in-combination rule for Polysorbate 65 (Item No. P.4) in ice cream mix, ice cream, ice milk mix, and ice milk when the additive is used in combination with other stabilizing agents. As per the standards for ice cream mix and ice milk mix (sections B.08.061 and B.08.071 of the Regulations), the maximum level of use for stabilizing agents used in combination shall not exceed 0.5% in the ice cream or ice milk made from their respective mixes. The provisions in this List for Polysorbate 65 in ice cream mix, ice cream, ice milk mix and ice milk have been corrected (i.e., the 0.75% figure has been removed):

<b>Item No.</b>	<b>Column 1 Additive</b>	<b>Column 2 Permitted in or Upon</b>	<b>Column 3 Maximum Level of Use and Other Conditions</b>
P.4	Polyoxyethylene (20) Sorbitan Tristearate (Polysorbate 65)	(9) Ice cream mix; Ice cream	(9) 0.1%. If Poxoxyethylene (20) sorbitan monooleate is also used, the total must not exceed 0.1%. If used in combination with other stabilizing agents, the total amount of combined stabilizing agents shall not exceed 0.5%
		(10) Ice milk mix; Ice milk	(10) 0.1%. If Poxoxyethylene (20) sorbitan monooleate is also used, the total must not exceed 0.1%. If used in combination with other stabilizing agents, the total amount of combined stabilizing agents shall not exceed 0.5%

In the French version of the [\*List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents\*](#), the maximum level of use for Polysorbate 65 (Item No. P.4) in ice cream mix and ice cream was mistakenly listed twice (shown as “0,1%. 0,1%”) when the additive is used in combination with Poxoxyethylene (20) sorbitan monooleate. The provision in the French



Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents* to Enable the Use of Tamarind Gum in Various Foods

version of this List for Polysorbate 65 in ice cream mix and ice cream now appears as follows (the additional 0,1% figure has been removed):

Article	Colonne 1 Additif	Colonne 2 Permis dans ou sur	Colonne 3 Limites de tolérance et autres conditions
P.4	Polyoxyéthylène (20) Tristéarate de sorbitan (Polysorbate 65)	(9) Crème glacée; mélange pour crème glacée	(9) 0,1 %. Si l'on emploie aussi le monooléate polyoxyéthylénique (20) de sorbitan, le total ne doit pas dépasser 0,1 %. Si l'on emploie aussi d'autres agents stabilisants en association, la quantité totale des agents stabilisants ne doit pas dépasser 0,5 %

## Rationale

Health Canada's Food Directorate completed a premarket safety assessment of the requested uses of tamarind gum. The assessment did not identify any chemical, microbiological, nutritional, or toxicological safety concerns. Therefore, the Department has enabled the requested uses of tamarind gum by modifying the [List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents](#) as shown in the first table above.

## Other Relevant Information

The *Food and Drug Regulations* require that food additives such as tamarind gum that do not have food-grade specifications set out in Part B of the Regulations meet the most recent food-grade specifications set out in the *Food Chemicals Codex* or the *Combined Compendium of Food Additive Specifications*. The *Food Chemicals Codex* is a compendium of standards for purity and identity for food ingredients, including food additives, published by the United States Pharmacopeial Convention. The *Combined Compendium of Food Additive Specifications*, which contains specifications prepared by the Joint FAO/WHO Expert Committee on Food Additives (JECFA), is published by the Food and Agriculture Organization of the United Nations.

## Notification – Summary of Comments

In response to the notice [Health Canada's Proposal to Enable the Use of Tamarind Gum as an Emulsifying, Gelling, Stabilizing and Thickening Agent in Unstandardized Foods and Certain Standardized Foods – Reference Number: NOP/ADP-0026](#), Health Canada received one comment from the food industry supporting the proposal to allow tamarind gum in unstandardized foods at levels of use consistent with good manufacturing practice, and one enquiry from another national government concerning the availability of specifications for this food additive. At the time that Health Canada replied to the enquiry, it was indicated that

## Notice of Modification to the *List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents* to Enable the Use of Tamarind Gum in Various Foods

specifications for tamarind gum were expected to soon be added to the *Combined Compendium of Food Additive Specifications*. The specifications for tamarind gum have since been published in the [Compendium of Food Additive Specifications](#) (FAO JECFA Monographs 20, 2017).

### Implementation and Enforcement

The above modification came into force **May 8, 2018**, the day it was published in the [List of Permitted Emulsifying, Gelling, Stabilizing or Thickening Agents](#).

The Canadian Food Inspection Agency is responsible for the enforcement of the *Food and Drugs Act* and its associated regulations with respect to foods.

### 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 tamarind gum. Anyone wishing to submit new scientific information on the use of this additive 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 "**tamarind gum (NOM-0113)**" in the subject line of your e-mail.

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