

(updated)
**REGULATIONS GOVERNING EMULSIFIERS, STABILISERS AND THICKENERS AND
THE AMOUNTS THEREOF THAT FOODSTUFFS MAY CONTAIN**

Published under Government Notice No. R. 2527 of 13 November 1987

As amended by:

Government Notice No. R.2555 of 25 October 1991

Government Notice No. R.68 of 15 January 1993

Government Notice No. R.1137 of 1 July 1994

Government Notice No. R.1145 of 4 August 1995

The Minister of National Health has, under and by virtue of the powers vested in him by section 15(1) of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), made the regulations contained in the Schedule hereto.

SCHEDULE

Definitions

1. In these regulations **“the Act”** shall mean the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), and any expression to which a meaning has been assigned in the Act shall bear such meaning and, unless the context otherwise indicates -

“Annex” shall mean the Annex to these regulations;

“chemically modified starches” shall mean -

- dextrins;
- acid-treated starch;
- bleached starch;
- oxidized starch;
- monostarch phosphate;
- distarch phosphate;
- phosphated distarch phosphate;
- acetylated distarch phosphate;
- starch acetate;
- acetylated distarch adipate; and
- hydroxypropyl distarch phosphate;

“cottage cheese”, “cream cheese”, “cream”, “milk powder”, “skimmed milk powder” and **“processed or blended cheese, including cheese spread and process cheese preparations”** shall mean the products as defined in the Regulations relating to Milk and Milk Products, published by Government Notice No. R. 1555 of 21 November 1997;

“emulsifier” and **“stabilizer”** shall mean those substances which, when added to a foodstuff, make it possible to attain or maintain a uniform dispersion of two or more immiscible substances;

“good manufacturing practice (GMP)” shall mean the amount used in accordance with current good manufacturing practice;

“low fat milk” shall mean milk the milkfat of which has been removed to below the fat content requirements prescribed in the regulations made under the Marketing Act, 1968 (Act No. 59 of 1968);

“margarine” shall mean the product which complies with compositional standards prescribed for margarine in the regulations made under the Marketing Act, 1968 (Act No. 59 of 1968);

“mayonnaise”, “French, Greek or Italian salad dressing or any similar dressing”, “salad cream”, “salad dressing or dressing”, low-oil salad dressing or low-oil dressing” and **“oil-free salad dressing or oil-free dressing”** shall mean the products which comply with the standards of contained in Government Notice No. R. 92 of 1986;

“sardines and sardine-type products” shall mean the following species:

Sardina pilchardus (Walbaum);
Sardinops melanosticta, neopilchardus, ocellata, sagax or *caerulea*;
Sardinella aurita, anchovia, brasiliensis or *maderensis*;
Clupea harengus harengus;
Clupea antipodum, bassensis or *fuegensis*;
Sprattus sprattus (Clupea sprattus);
Hyperlophus vittatus;
Nematalosa vlaminghi;
Itromeus micropus;
Ethmidium maculates;
Engraulis anchoita;
Engraulis ringens; and
Engraulis capensis;

“soft drinks” shall have the meaning assigned to it in the regulations on soft drinks published by Government Notice No. R. 1769 of 9 August 1985;

“sugar confectionary” shall mean any foodstuff that is ready for consumption without further preparation and of which a characterizing ingredient is carbohydrate sweetening matter, and shall include sweetened liquorice and chewing gum, but shall not include any chocolate confectionary, chocolate products, flour confectionary, edible ice, table jellies, slab marzipan, sugar or biscuits, including shortbread;

“thickener” shall mean the substance which, when added to a foodstuff, increase its viscosity.

2. Subject to -

- (a) the provisions of regulations 3 and 4; and
- (b) the provisions of the regulations made under the Act relating to -
 - (i) the additives and amounts as well as the tolerances for certain substances in wine, other fermented beverages and spirits, published by Government Notice No. R. 2870 of 31 December 1981; and

- (ii) foodstuffs for infants, young children and children, published by Government Notice No. R. 1130 of 8 June 1984, no foodstuff shall contain any added emulsifier, stabilizer or thickener.
3. A foodstuff listed in column I of the Annex may contain -
- any of the emulsifiers, stabilisers or thickeners specified opposite thereto in column II of the Annex in a proportion not exceeding the number of milligrams per kilogram specified opposite thereto in column III of the Annex;
 - a mixture of the emulsifiers, stabilizers and thickeners referred to in paragraph (a), if compatible, on condition that the sum of the fractions obtained when the amount of each emulsifier, stabilizer or thickener used is divided by the maximum permissible amount of such emulsifier, stabilizer or thickener when used alone, does not exceed one.
4. Subject to the provisions of regulations 2 and 3, foodstuffs prepared in part from foodstuffs not listed in column I of the Annex and in part from foodstuffs listed in the said column shall not contain a larger quantity of emulsifier, stabiliser or thickener than is permissible in the latter foodstuffs in terms of these regulations.
5. Where criteria of purity are laid down for an emulsifier, stabiliser or thickener in the latest version of *Food Chemicals Codex*, such criteria shall apply.
6. No emulsifier, stabiliser or thickener may constitute more than 15% of the mass of any foodstuff of which it is an emulsifier, stabiliser or thickener.

ANNEXURE

I Foodstuff	II Emulsifier/Stabiliser/ Thickener	III Conditions and limits (mg/kg)
BAKERY FILLINGS, ICINGS AND FOOD COATINGS	Gellan gum.....	GMP
COCOA AND CHOCOLATE Cocoa beans, cocoa dust, cocoa fines, cocoa mass, cocoa press cake, fat reduced cocoa press cake and expeller cocoa press cake Press cocoa butter, cocoa butter, expeller cocoa butter, refined cocoa butter and cocoa fat Cocoa and cocoa powder, in each case in relation to a cocoa product in the form of an instant preparation Cocoa and cocoa powder, in each case in relation to a cocoa product not in the form of an instant preparation Drinking chocolate, sweetened cocoa and sweetened cocoa powder, in each case whether in the form of an instant preparation or not	Lecithins or ammonium phosphatides or any combination thereof..... Mono- and diglycerides of edible fatty acids.....	GMP 1 500

Chocolate, dark chocolate, chocolate couverture and dark chocolate couverture	Lecithins or ammonium phosphatides or any combination thereof..... Mono- and diglycerides of edible fatty acids..... Polyglycerol esters of polycondensed fatty acids of castor oil (polyglycerol polyricinolate).....	GMP 1 500 5 000, singly or in combination with mono- and diglycerides of edible fatty acids
Milk chocolate, white chocolate, chocolate vermicelli, chocolate flakes, milk vermicelli and milk chocolate flakes	Lecithins or ammonium phosphatides or any combination thereof..... Mono- and diglycerides of edible fatty acids..... Polyglycerol esters of polycondensed fatty acids of castor oil Polyglycerol esters of edible fatty acids.....	GMP GMP 5 000 5 000

	monostearate (polysorbate 60)..... Polyoxyethylene (2) sorbitan mono-oleate (polysorbate 80)..... Polyoxyethylene (2) sorbitan Tristearate (polysorbate 65)..... Propylene glycol alginate..... Sodium and potassium carboxyl- methylcellulose..... Sucrose esters of fatty acids and sucroglycerides..... Chemically modified starches..... Xanthan gum.....	10 000, singly or in combination 30 000, singly or in combination 1 000
JAMS, FRUIT PRESERVES AND JELLIES	Agar..... Carrageenan..... Gellan gum..... Propylene glycol alginate..... Pectin (amidated)..... Pectin (non-amindated).....	20 000, singly or in combination GMP 20 000, singly or in combination 50 000 GMP

<p>MARINE FOODS Canned hake, mackerel and jack mackerel (maasbanker) and sardines and sardine-type products</p> <p>Caviar</p>	<p>Agar.....</p> <p>Alginic acid and its calcium, potassium and sodium salts.....</p> <p>Carob bean gum.....</p> <p>Carrageenan.....</p> <p>Guar gum.....</p> <p>Pectin (amidated and non-amidated).....</p> <p>Tragacanth gum (maasbanker only).....</p> <p>Xanthan gum.....</p> <p>Chemically modified starches.....</p> <p>Tragacanth gum.....</p>	<p>20 000, in the packing medium only single or in combination with other permitted thickener or jellyian agents</p> <p>60 000 for maasbanker and 20 000 for sardines and sardine-type products in the packing medium only singly or in combination</p> <p>3 000</p>
<p>MARGARINE</p>	<p>Acetic, citric, diacetyl tartaric, lactic and fatty acid esters of glycerol.....</p> <p>Lecithins.....</p> <p>Mono- and diglycerides.....</p> <p>Mixed tartaric, acetic and fatty acid esters of glycerol.....</p> <p>Polyglycerol esters of fatty acids.....</p> <p>Propylene glycol esters of fatty acids</p> <p>Sorbitan esters:</p> <p> monopalmitate.....</p> <p> monostearate.....</p> <p> tristearate.....</p>	<p>10 000, singly or in combination with other permitted emulsifiers GMP</p> <p>10 000, singly or in combination with other permitted thickeners 5 000</p> <p>20 000</p> <p>10 000</p>
<p>MINARINE</p>	<p>Agar.....</p> <p>Alginic acid and its ammonium, calcium, potassium and sodium salts.....</p> <p>Carob bean gum.....</p> <p>Carrageenan.....</p> <p>Cellulose, methyl.....</p> <p>Guar gum.....</p> <p>Propylene glycol alginate.....</p> <p>Pectin (amidated).....</p> <p>Sodium carboxymethylcellulose.....</p> <p>Polyglycerol esters of fatty acid:</p> <p> Polyoxyethylene (20) sorbitan monolaurate (polysorbate 20).....</p> <p> Polyoxyethylene (20) sorbitan mono-oleate (polysorbate 80).....</p> <p> Polyoxyethylene (20) sorbitan monopalmitate (polysorbate 40).....</p> <p> Polyoxyethylene (20) sorbitan monostearate (polysorbate 60).....</p> <p> Polyoxyethylene (20) sorbitan tristearate (polysorbate 65).....</p> <p>Sorbitan esters</p> <p> Monopalmitate.....</p> <p> Monostearate.....</p> <p> Tristearate.....</p> <p>Lecithins.....</p> <p>Mono- and diglycerides.....</p> <p>Polyglycerol esters of ineterified ricinoleic acid.....</p> <p>Xanthan gum.....</p>	<p>10 000, singly or in combination with other permitted thickeners</p> <p>10 000, singly or in combination with other permitted emulsifiers</p> <p>GMP</p> <p>5 000, singly or in combination with other permitted thickeners</p>

MAYONNAISE AND OTHER SALAD DRESSINGS		
French, Greek, Italian and similar salad dressings	Carob bean gum.....	5 000
	Cellulose, methyl and sodium carboxymethyl.....	
Mayonnaise	Propylene glycol alginate.....	10 000
	Carrageenan.....	
	Chemically modified starches.....	GMP
	Lecithin and derivatives thereof.....	
	Xanthan gum.....	
	Guar gum.....	GMP
	Pectin (amidated and non-amidated).....	
	Polyoxyethylene (20) sorbitan monostearate (polysorbate 60).....	
	Polyoxyethylene (20) sorbitan monooleate (polysorbate 80).....	GMP
	Sorbitan monostearate.....	
Salad cream, salad dressing, low-oil salad dressing and oil-free dressing	Acacia gum.....	GMP
	Chemically modified starches.....	
	Guar gum.....	
	Sodium carboxymethylcellulose.....	5 000
	Xanthan gum.....	
	Oat gum.....	
	Carob bean gum.....	10 000
	Pectin (amidated and non-amidated).....	
	Tragacanth gum.....	10 000
	Carrageenan.....	
Propylene glycol alginate.....	GMP	
Alginates, calcium, potassium and sodium.....		
Chemically modified starches.....		
Guar gum.....	GMP	
Mono- and diglycerides.....		
Pectin (amidated and non-amidated).....		
Xanthan gum.....	5 000	
Carob bean gum.....		
Propylene glycol alginate.....	5 000	
Cellulose, methyl and sodium carboxymethyl.....		
Carrageenan.....	10 000	
Polyoxyethylene (20) sorbitan monostearate (polysorbate 60).....		
Polyoxyethylene (20) sorbitan monooleate (polysorbate 80).....	4 000	
Sorbitan monostearate.....		

<p>MEAT PRODUCTS</p> <p>Cooked cured ham and pork shoulder</p> <p>Other meat products (processed and manufactured)</p>	<p>Agar.....</p> <p>Alginic acid and its potassium and sodium salts.....</p> <p>Carob bean gum.....</p> <p>Carrageenan.....</p> <p>Chemically modified starches.....</p> <p>Gelatin.....</p> <p>Guargum.....</p> <p>Xanthan gum.....</p> <p>Agar (preserved tongue only).....</p> <p>Alginates.....</p> <p>Carrageenan.....</p> <p>Alginic acid and its ammonium, calcium, potassium and sodium salts.....</p> <p>Propylene glycol alginate.....</p> <p>Sodium carboxymethylcellulose.....</p> <p>Carob bean gum.....</p> <p>Guar gum.....</p> <p>Chemically modified starches.....</p> <p>Gelatin.....</p> <p>Xanthan gum.....</p>	<p>GMP</p> <p>3 000</p> <p>5 000, singly or in combination</p> <p>3 000, singly or in combination</p> <p>GMP</p>
<p>MILK AND MILK PRODUCTS</p> <p>Buttermilk</p> <p>Cheese powder</p> <p>Cottage cheese</p>	<p>Carrageenan.....</p> <p>Carob bean gum.....</p> <p>Guar gum.....</p> <p>Propylene glycol alginate.....</p> <p>Xanthan gum.....</p> <p>Sodium carboxymethylcellulose...</p> <p>Alginic acid and its sodium and calcium salts.....</p> <p>Gelatin.....</p> <p>Acacia gum.....</p> <p>Alginic acid and its ammonium, calcium, potassium and sodium salts.....</p> <p>Carob bean gum.....</p> <p>Carrageenan gum.....</p> <p>Gelatin.....</p> <p>Guargum.....</p> <p>Karaya gum.....</p> <p>Oat gum.....</p> <p>Pectin.....</p> <p>Propylene glycol alginate.....</p> <p>Sodium carboxymethylcellulose...</p> <p>Tragacanth gum.....</p> <p>Chemically modified starches.....</p> <p>Xanthan gum.....</p> <p>Alginic acid and its ammonium, calcium, potassium and sodium salts.....</p> <p>Carob bean gum.....</p> <p>Carrageenan (including furcellaran).....</p>	<p>6 000</p> <p>5 000</p> <p>3 000</p> <p>3 000</p> <p>3 000</p> <p>3 000</p> <p>2 000</p> <p>6 000</p> <p>6 000</p> <p>16 000, singly or in combination</p> <p>GMP</p> <p>5 000 of the creaming mixture, singly or in combination with permitted stabilizers and carriers</p>

<p>Cream, whipping / whipped, pasteurized or UHT cream and sterilized cream</p>	<p>Dextrins, roasted starch..... Gelatin..... Guar gum..... Karaya gum..... Lecithins..... Mono- and diglycerides..... Propylene glycol alginate..... Sodium carboxymethylcellulose..... Tragacanth gum..... Calcium, potassium and sodium salts of – carbonic acid..... citric acid..... hydrochloric acid..... orthophosphoric acid..... Sodium caseinate.....</p>	<p>5 000 of the creaming mixture, singly or in combination with permitted stabilizers and carriers</p> <p>2 000, singly or in combination, expressed as anhydrous substances</p> <p>3 000 of the creaming mixture, singly or in combination with other caseinates</p>
<p>Condensed evaporated milk (unsweetened product only) Flavoured and fruit yoghurt</p>	<p>Chemically modified starches..... Xanthan gum..... Acacia gum..... Agar..... Alginic acid and its ammonium, calcium, potassium and sodium salts..... Carob bean gum..... Carrageenan..... Cellulose, microcrystalline..... Gelatin..... Lecithins..... Mono- and diglycerides..... Sodium carboxymethylcellulose..... Xanthan gum..... Calcium, potassium and sodium salts of – carbonic acid..... citric acid..... hydrochloric acid..... orthophosphoric..... polyphosphoric acid..... Chemically modified starches..... Carrageenan..... Acacia gum..... Agar..... Alginic acid and its ammonium, calcium, potassium and sodium salts..... Carob bean gum..... Carrageenan (including furcellaran). Gellan gum..... Gelatin..... Guar gum..... Karaya gum..... Pectin (amidated and non-amidated).....</p>	<p>GMP</p> <p>5 000, singly or in combination with other permitted thickeners and modifying agents</p> <p>5 000, singly or in combination expressed as anhydrous substances</p> <p>GMP 150</p> <p>8 000, singly or in combination</p> <p>GMP</p> <p>8 000, singly or in combination</p>

Ice cream Instant whipped cream powders and Toppings	Tragacanth gum.....	8 000, singly or in combination
	Xanthan gum.....	
	Caseinate, calcium, potassium or Sodium.....	10 000, singly or in combination
	Chemically modified starches.....	
	Calcium, potassium and sodium Salts of –	5 000, singly or in combination, expressed as anhydrous substances
	carbonic acid	
	Citric acid.....	
	hydrochloric acid.....	
	orthophosphoric acid.....	
	polyphosphoric acid.....	GMP
	Gellan gum.....	
	Chemically modified starches.....	GMP
	Lactic and acetic acid esters of Mono- and diglycerides.....	
Lecithin.....	GMP	
Pregelatinised starch.....		
Propylene glycol esters of fatty Acids.....	4 000	
Propylene glycol monostearate.....		
Alginic acid and its sodium and calcium salts.....	4 000	
Xanthan gum.....	4 000	
Propylene glycol monostearate.....	2 5000	
Low fat milk Milk powder and skimmed milk powder	Carrageenan.....	10 000
	Lecithin.....	5 000 in instant milk powders only
	Mono- and diglycerides.....	2 500 in instant milk powders only
Processed or blended cheese, including cheese spread and process cheese preparations	Acacia gum.....	GMP
	Alginic acid and its ammonium, calcium, potassium and sodium salts.	
	Carob bean gum.....	
	Carrageenan.....	
	Gelatin.....	
	Guar gum.....	
	Karaya gum	
	Oat gum.....	
	Pectin.....	
	Propylene glycol alginate.....	
	Sodium carboxymethylcellulose....	
	Tragacanth gum.....	
Chemically modified starches.....		
Xanthan gum.....		

<p>SOFT DRINKS</p>	<p>Acacia gum..... Carob bean gum..... Carrageenan (including furcellaran). Chemically modified starches..... Gham gum..... Guar gum..... Mono- and diglycerides of edible fatty acids..... Pectin and derivatives thereof..... Polyoxyethylene (20) sorbitan monolaurate (polysorbate 20).... Polyoxyethylene (20) sorbitan monostearate (polysorbate 60).... Sodium alginate..... Sodium carboxymethylcellulose..... Tragacanth gum..... Xanthan gum..... Brominated vegetable oils containing not more than 33 per cent bromine of which the acidity, expressed as hydrobromic acid, does not exceed 100mg/l..... Dioctyl sodium sulphosuccinate..... Glycerol ester of wood resin..... Sucrose acetate isobutyrate.....</p>	<p>GMP</p> <p>15 10 1000 500</p>
<p>SOUP AD STOCK Bouillon, canned soup, soup and sauce powders, and stock cubes and powders</p>	<p>Acacia gum..... Agar..... Alginic acid and its potassium and sodium salts..... Carob bean gum..... Carrageenan (including furcellaran). Chemically modified starches..... Guar gum..... Karaya gum..... Lecithin..... Mono- and diglycerides..... Oat5 gum..... Pectin (non-amidated) Propylene glycol alginate..... Tragacanth gum..... Sodium carboxymethylcellulose..... Xanthan gum.....</p>	<p>GMP</p> <p>4 000, on a ready-to-eat basis 3 000, on a ready-to-eat basis</p>
<p>SUGAR CONFECTIONARY</p>	<p>Agar..... Gellan gum..... Gelatine..... Glycerol monostearate..... Guar gum..... Lecithin..... Pectin.....</p>	<p>GMP</p>

<p>TIN GREASING COMPOUNDS</p>	<p>Calcium and sodium stearyl-2-lactylates. Lecithin and derivatives thereof... Mono- and diglycerides of – acetic, citric, lactic, succinic, tartaric and diacetyl tartaric acid esters..... Mono- and diglycerides of edible fatty acids..... Oxidatively polymerized soya bean oil..... Polyglycerol esters of dimensed soya fatty acids..... Polyglycerol esters of edible fatty acids..... Polyoxyethylene sorbitan esters: monostearate..... Polyoxyethylene (8 and 40) stearate. Sorbitan esters: monolaurate..... mono-oleate..... monopalmitate..... monostearate..... tristearate..... Stearyl tartrate..... Sucroglycerides..... Sucrose esters of edible fatty acids.. Polyglycerol esters of polycondensed fatty acid of castor oil (Polyglycerol polyricinoleate.....</p>	<p>10 000</p> <p>GMP</p> <p>2 000</p>
<p>VEGETABLES Canned asparagus, carrots, cream style sweetcorn, green beans, green peas, mushroom and wax beans, if the commodity contains butter or other fats or oils</p> <p>Canned slices tomatoes</p>	<p>Acacia gum..... Alginic acid and its ammonium, calcium, potassium and sodium salts..... Carob bean gum (carrots only)..... Carrageenan (including furcellaran)..... Chemically modified starch..... Guar gum..... Pectin (amidated and non-amidated). Propylene glycol alginate..... Xanthan gum..... Chemically modified starch.....</p>	<p>GMP</p> <p>GMP</p>
<p>WHEATEN AND RYE PRODUCTS Bread</p>	<p>Calcium and sodium stearyl-2-lactylates..... Ethoxylated mono- and diglycerides of edible fatty acids..... Lecithin and derivatives thereof..... Mono- and diglycerides of edible fatty acids..... Mono- and diglycerides of –citric, succinic, tartaric and diacetyl tartaric acid esters..... Propylene glycol esters of edible fatty acids and lactylated esters. Sucrose esters of edible fatty acids..</p>	<p>GMP</p>

Breakfast cereals	Polyglycerol esters of edible fatty acids.....	10 000
	Sorbitan esters of edible fatty acids.....	
	Polyoxyethylene (20) sorbitan mono-stearate (polysorbate 60).....	500
	Acacia gum.....	GMP
	Calcium and sodium stearyl-2-lactylates.....	
	Carob bean gum.....	
	Carrageenan (including furcellaran).....	
	Cellulose gums.....	
	Chemically modified starches.....	
	Ghatti gum.....	
	Guar gum.....	
	Karaya gum.....	
	Lecithin and derivatives thereof.....	
	Mono- and diglycerides of edible fatty acids.....	
	Pectin.....	
Tragacanth gum.....		
Xanthan gum.....		
Flour confectionary and cake mixes including flour-based mixes	Acacia gum.....	
	Calcium and sodium stearyl-2-lactylates.....	
	Carob bean gum.....	
	Carrageenan (including furcellaran).....	
	Cellulose, ethyl, ethylmethyl, carboxymethyl, hydroxy propyl.....	
	Cellulose gums.....	
	Chemically modified starches.....	
	Ethoxylated mono- and diglycerides of edible fatty acids.....	
	Ghatti gum.....	
	Guar gum.....	
	Karaya gum.....	
	Lecithin and derivatives thereof.....	
	Mono- and diglycerides of -citric, lactic, succinic, tartaric and diacetyl tartaric acid esters.....	
	Mono- and diglycerides of edible fatty acids.....	
	Pectin.....	
Malt liquor as defined in the Liquor Act, No. 87 of 1977	Propylene glycerol esters of fatty acids.....	GMP
	Propylene glycol alginate.....	500 GMP 2 000
	Sodium alginate.....	
	Sucroglycerides.....	
	Sucrose esters of edible fatty acids..	
	Tragacanth gum.....	
	Xanthan gum.....	
	Polyoxyethylene (20) sorbitan mono-stearate (polysorbate 60).....	
	Propylene glycol alginate.....	
	Alginic acid and its calcium and sodium salts.....	

	Mono- and diglycerides of – acetic, citric, lactic, succinic, tartaric and diacetyl tartaric acid esters..... Mono- and diglycerides of edible fatty acids..... Xanthan gum.....	GMP 4 000