

### List of food additives

S. No.	INS No.	Food Additive or Group	Maximum permitted level
1.	950	Acesulfame potassium	2,000 mg/kg
2.	304, 305	Ascorbyl Esters	500 mg/kg
3.	951	Aspartame	5,500 mg/kg
4.	962	Aspartame-Acesulfame salt	2,000 mg/kg
5.	901	Beeswax	GMP
6.	210, 211, 212, 213	Benzoates	2,000 mg/kg
7.	133	Brilliant blue FCF	300 mg/kg
8.	320	Butylated hydroxyanisole (BHA)	400 mg/kg
9.	321	Butylated hydroxytoluene (BHT)	400 mg/kg
10.	902	Candelilla wax	GMP
11.	150c	Caramel III – Ammonia caramel	20,000 mg/kg
12.	150d	Caramel IV – Sulphite ammonia caramel	20,000 mg/kg
13.	903	Carnauba wax	5,000 mg/kg
14.	160a(ii)	beta-Carotenes (vegetable)	600 mg/kg
15.	160a(i), (iii), 160e, 160f	Carotenoids	300 mg/kg
16.	1503	Castor oil	1,000 mg/kg
17.	141(i),(ii)	Chlorophylls and Chlorophyllins, Copper Complexes	500 mg/kg
18.	472e	Diacetyltartaric and fatty acid esters of glycerol	5,000 mg/kg
19.	385, 386	Ethylene diamine tetra acetates	150 mg/kg
20.	143	Fast green FCF	600 mg/kg
21.	163(ii)	Grape skin extract	500 mg/kg
22.	132	Indigotine (Indigo carmine)	300 mg/kg
23.	961	Neotame	90 mg/kg
24.	338, 339(i)-(iii), 340(i)-(iii), 341(i)-(iii), 342(i),(ii), 343(i)-(iii), 450(i)-(iii),(v)-(vii), 451(i),(ii), 452(i)-(v), 542	Phosphates	2,200 mg/kg
25.	1203	Polyvinyl alcohol	45,000 mg/kg
26.	900a	Polydimethylsiloxane	50 mg/kg
27.	1521	Polyethylene Glycol	70,000 mg/kg
28.	432-436	Polysorbates	25,000 mg/kg
29.	1201	Polyvinylpyrrolidone	GMP

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30.	124	Ponceau 4R (Cochineal red A)	300 mg/kg
31.	310	Propyl gallate	400 mg/kg
32.	101(i)-(iii)	Riboflavins	300 mg/kg
33.	954(i)-(iv)	Saccharins	1,200 mg/kg
34.	904	Shellac, Bleached	GMP
35.	200-203	Sorbates	2,000 mg/kg
36.	960	Steviol Glycosides	2,500 mg/kg
37.	955	Sucralose (Trichlorogalactosucrose)	2,400 mg/kg
38.	474	Sucroglycerides	2,500 mg/kg
39.	110	Sunset yellow FCF	300 mg/kg

### Additives to be used at GMP level

S. No.	INS No.	Additive	Functional Class
1.	260	Acetic acid, glacial	Acidity regulator, Preservative
2.	472a	Acetic and fatty acid esters of glycerol	Emulsifier, Sequestrant, Stabilizer
3.	1422	Acetylated distarch adipate	Emulsifier, Stabilizer, Thickener
4.	1417	Acetylated distarch phosphate	Emulsifier, Stabilizer, Thickener
5.	1451	Acetylated oxidized starch	Emulsifier, Stabilizer, Thickener
6.	1401	Acid treated starch	Emulsifier, Stabilizer, Thickener
7.	406	Agar	Bulking agent, Carrier, Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener
8.	400	Alginic acid	Bulking agent, Carrier, Emulsifier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Stabilizer, Thickener
9.	1402	Alkaline treated starch	Emulsifier, Stabilizer, Thickener
10.	1100 (i)	alpha-Amylase from <i>Aspergillus oryzae</i>	Flour treatment agent
11.	1100 (vi)	Carbohydrase from <i>Bacillus licheniformis</i>	Flour treatment agent
12.	1100 (iv)	alpha-Amylase from <i>Bacillus megaterium</i> expressed in <i>Bacillus subtilis</i>	Flour treatment agent
13.	1100 (ii)	alpha-Amylase from <i>Bacillus stearothermophilus</i>	Flour treatment agent
14.	1100 (v)	alpha-Amylase from <i>Bacillus stearothermophilus</i> expressed in <i>Bacillus subtilis</i>	Flour treatment agent
15.	1100 (iii)	alpha-Amylase from <i>Bacillus subtilis</i>	Flour treatment agent

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16.	264	Ammonium acetate	Acidity regulator
17.	403	Ammonium alginate	Bulking agent, Carrier, Emulsifier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Stabilizer, Thickener
18.	503(i)	Ammonium carbonate	Acidity regulator, Raising agent
19.	510	Ammonium chloride	Flour treatment agent
20.	503(ii)	Ammonium hydrogen carbonate	Acidity regulator, Raising agent
21.	527	Ammonium hydroxide	Acidity regulator
22.	328	Ammonium lactate	Acidity regulator, Flour treatment agent
23.	300	Ascorbic acid, L.	Acidity regulator, Anti-oxidant, Flour treatment agent
24.	162	Beet red	Colour
25.	1403	Bleached starch	Emulsifier, Stabilizer, Thickener
26.	1101(iii)	Bromelain	Flavour enhancer, Flour treatment agent, Stabilizer
27.	629	Calcium 5'-guanylate	Flavour enhancer
28.	633	Calcium 5'-inosinate	Flavour enhancer
29.	634	Calcium 5'-ribonucleotides	Flavour enhancer
30.	263	Calcium acetate	Acidity regulator, Preservative, Stabilizer
31.	404	Calcium alginate	Anti-foaming agent, Bulking agent, Carrier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Stabilizer
32.	302	Calcium ascorbate	Anti-oxidant
33.	170(i)	Calcium carbonate	Acidity regulator, Anti-caking agent, Carrier, Firming agent, Flour treatment agent, Stabilizer
34.	509	Calcium chloride	Firming agent, Stabilizer, Thickener
35.	623	Calcium di-L-glutamate	Flavour enhancer
36.	578	Calcium gluconate	Acidity regulator, Firming agent, Sequestrant
37.	526	Calcium hydroxide	Acidity regulator, Firming agent
38.	327	Calcium lactate	Acidity regulator, Flour treatment agent
39.	352(ii)	Calcium malate, DL-	Acidity regulator
40.	529	Calcium oxide	Acidity regulator, Flour treatment agent
41.	282	Calcium propionate	Preservative
42.	552	Calcium silicate	Stabilizer
43.	516	Calcium sulfate	Firming agent, Flour treatment agent, Sequestrant, Stabilizer

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44.	150a	Caramel I – plain caramel	Colour
45.	290	Carbon dioxide	Carbonating agent, Packaging gas, Preservative, Propellant
46.	410	Carob bean gum	Emulsifier, Stabilizer, Thickener
47.	407	Carrageenan	Bulking agent, Carrier, Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener
48.	427	Cassia gum	Emulsifier, Gelling agent, Stabilizer, Thickener
49.	140	Chlorophylls	Colour
50.	1001	Choline salts and esters	Emulsifier
51.	330	Citric acid	Acidity regulator, Anti-oxidant, Sequestrant
52.	472c	Citric and fatty acid esters of glycerol	Anti-oxidant, Emulsifier, Flour treatment agent, Sequestrant, Stabilizer
53.	466	Cross carmellose sodium	Binder, Thickening agent, Disintegrant
54.	468	Cross-linked sodium carboxymethyl cellulose (Crosslinked- cellulose gum)	Stabilizer, Thickener
55.	424	Curdlan	Firming agent, Gelling agent, Stabilizer, Thickener
56.	457	Cyclodextrin, alpha-	Stabilizer, Thickener
57.	458	Cyclodextrin, gamma-	Stabilizer, Thickener
58.	1504 (i)	Cyclotetraglucose	Carrier, Glazing agent
59.	1504 (ii)	Cyclotetraglucose syrup	Carrier
60.	1400	Dextrins, roasted starch	Emulsifier, Stabilizer, Thickener
61.	628	Dipotassium 5'-guanylate	Flavour enhancer
62.	627	Disodium 5'-guanylate	Flavour enhancer
63.	631	Disodium 5'-inosinate	Flavour enhancer
64.	635	Disodium 5'-ribonucleotides	Flavour enhancer
65.	1412	Distarch phosphate	Emulsifier, Stabilizer, Thickener
66.	315	Erythorbic Acid (Isoascorbic acid)	Anti-oxidant
67.	968	Erythritol	Flavour enhancer, Humectant, Sweetener
68.	462	Ethyl cellulose	Bulking agent, Carrier, Glazing agent, Thickener
69.	467	Ethyl hydroxyethyl cellulose	Emulsifier, Stabilizer, Thickener
70.	297	Fumaric acid	Acidity regulator
71.	418	Gellan gum	Stabilizer, Thickener
72.	575	Glucono delta-lactone	Acidity regulator, Raising agent, Stabilizer
73.	1102	Glucose oxidase	Anti-oxidant

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74.	620	Glutamic acid, L(+)-	Flavour enhancer
75.	422	Glycerol	Humectant, Thickener
76.	626	Guanylic acid, 5'-	Flavour enhancer
77.	412	Guar gum	Emulsifier, Stabilizer, Thickener
78.	414	Gum arabic (Acacia gum)	Bulking agent, Carrier, Emulsifier, Glazing agent, Stabilizer, Thickener
79.	507	Hydrochloric acid	Acidity regulator
80.	463	Hydroxypropyl cellulose	Bulking agent, Emulsifier, Foaming agent, Glazing agent, Stabilizer, Thickener
81.	1442	Hydroxypropyl distarch phosphate	Emulsifier, Stabilizer, Thickener
82.	464	Hydroxypropyl methyl cellulose	Emulsifier, Glazing agent, Stabilizer, Thickener
83.	1440	Hydroxypropyl starch	Emulsifier, Stabilizer, Thickener
84.	630	Inosinic acid, 5'	Flavour enhancer
85.	953	Isomalt (Hydrogenated isomaltulose)	Anti-caking agent, Bulking agent, Glazing agent, Sweetener
86.	416	Karaya gum	Emulsifier, Stabilizer, Thickener
87.	425	Konjac flour	Carrier, Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener
88.	270	Lactic acid, L-, D- and DL-	Acidity regulator
89.	472b	Lactic and fatty acid esters of glycerol	Emulsifier, Sequestrant, Stabilizer
90.	966	Lactitol	Emulsifier, Sequestrant, Stabilizer
91.	322(i)	Lecithin (and its salts and esters from soya or other sources)	Anti-oxidant, Emulsifier
92.	1104	Lipases	Stabilizer
93.	160d(iii)	Lycopene, Blakeslea trispora	Colour
94.	160d(i)	Lycopene, synthetic	Colour
95.	160d(ii)	Lycopene, tomato	Colour
96.	504(i)	Magnesium carbonate	Acidity regulator, Anti-caking agent, Colour retention agent
97.	511	Magnesium chloride	Colour retention agent, Firming agent, Preservative
98.	625	Magnesium di-L-glutamate	Flavour enhancer
99.	580	Magnesium gluconate	Acidity regulator, Firming agent, Flavour enhancer
100.	528	Magnesium hydroxide	Acidity regulator, Colour retention agent
101.	504(ii)	Magnesium hydroxide carbonate	Acidity regulator, Anti-caking agent, Carrier, Colour retention agent

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102.	329	Magnesium lactate, DL-	Acidity regulator, Flour treatment agent
103.	530	Magnesium oxide	Anti-caking agent
104.	553(i)	Magnesium silicate, synthetic	Anti-caking agent
105.	518	Magnesium sulfate	Firming agent, Flavour enhancer
106.	296	Malic acid, DL-	Acidity regulator
107.	965(i)	Maltitol	Bulking agent, Emulsifier, Humectant, Stabilizer, Sweetener
108.	965(ii)	Maltitol syrup	Bulking agent, Emulsifier, Humectant, Stabilizer, Sweetener
109.	421	Mannitol	Anti-caking agent, Bulking agent, Humectant, Stabilizer, Sweetener
110.	461	Methyl cellulose	Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener
111.	465	Methyl ethyl cellulose	Emulsifier, Gelling agent, Stabilizer, Thickener
112.	460(i)	Microcrystalline cellulose (Cellulose gel)	Anti-caking agent, Bulking agent, Carrier, Emulsifier, Foaming agent, Glazing agent, Stabilizer, Thickener
113.	471	Mono and di-glycerides of fatty acids	Anti-foaming agent, Emulsifier, Stabilizer
114.	624	Monoammonium L-glutamate	Flavour enhancer
115.	622	Monopotassium L-glutamate	Flavour enhancer
116.	621	Monosodium L-glutamate	Flavour enhancer
117.	1410	Monostarch phosphate	Emulsifier, Stabilizer, Thickener
118.	941	Nitrogen	Packaging gas, Propellant
119.	942	Nitrous oxide	Anti-oxidant, Foaming agent, Packaging gas, Propellant
120.	1404	Oxidized starch	Emulsifier, Stabilizer, Thickener
121.	1101(ii)	Papain	Flavour enhancer
122.	440	Pectins	Emulsifier, Gelling agent, Stabilizer, Thickener
123.	1413	Phosphated distarch phosphate	Emulsifier, Stabilizer, Thickener
124.	1200	Polydextroses	Bulking agent, Glazing agent, Humectant, Stabilizer, Thickener
125.	964	Polyglycitol syrup	Sweetener
126.	1202	Poly vinyl pyrrolidone, insoluble, including cross povidone	Colour retention agent, Stabilizer
127.	632	Potassium 5'-inosinate	Flavour enhancer
128.	261	Potassium acetates	Acidity regulator, Stabilizer
129.	402	Potassium alginate	Bulking agent, Carrier, Emulsifier,

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			Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Stabilizer, Thickener
<b>130.</b>	303	Potassium ascorbate	Anti-oxidant
<b>131.</b>	501(i)	Potassium carbonate	Acidity regulator, Stabilizer
<b>132.</b>	508	Potassium chloride	Flavour enhancer, Gelling agent, Stabilizer, Thickener
<b>133.</b>	332(i)	Potassium dihydrogen citrate	Acidity regulator, Sequestrant, Stabilizer
<b>134.</b>	577	Potassium gluconate	Acidity regulator, Stabilizer
<b>135.</b>	501(ii)	Potassium hydrogen carbonate	Acidity regulator, Raising agent, Stabilizer
<b>136.</b>	351(i)	Potassium hydrogen malate	Acidity regulator
<b>137.</b>	515 (ii)	Potassium hydrogen sulfate	Acidity regulator
<b>138.</b>	525	Potassium hydroxide	Acidity regulator
<b>139.</b>	326	Potassium lactate	Acidity regulator, Anti-oxidant
<b>140.</b>	351(ii)	Potassium malate	Acidity regulator
<b>141.</b>	283	Potassium propionate	Preservative
<b>142.</b>	515(i)	Potassium sulfate	Acidity regulator
<b>143.</b>	460(ii)	Powdered cellulose	Anti-caking agent, Bulking agent, Carrier, Emulsifier, Foaming agent, Glazing agent, Stabilizer, Thickener
<b>144.</b>	407a	Processed eucheuma seaweed	Bulking agent, Carrier, Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener
<b>145.</b>	944	Propane	Propellant
<b>146.</b>	280	Propionic acid	Preservative
<b>147.</b>	1101(i)	Protease	Flavour enhancer, Flour treatment agent, 1999 Glazing agent, Stabilizer
<b>148.</b>	1204	Pullulan	Glazing agent, Thickener
<b>149.</b>	470(i)	Salts of myristic, palmitic and stearic acids with ammonia, calcium, potassium and sodium	Anti-caking agent, Emulsifier, Stabilizer
<b>150.</b>	470(ii)	Salts of oleic acid with calcium, potassium and sodium	Anti-caking agent, Emulsifier, Stabilizer
<b>151.</b>	551	Silicon dioxide, amorphous	Anti-caking agent, Anti-foaming agent, Carrier
<b>152.</b>	262(i)	Sodium acetate	Acidity regulator, Preservative, Sequestrant
<b>153.</b>	401	Sodium alginate	Bulking agent, Carrier, Emulsifier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Stabilizer, Thickener

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154.	301	Sodium ascorbate	Anti-oxidant
155.	500(i)	Sodium carbonate	Acidity regulator, Anticaking agent, Raising agent
156.	466	Sodium carboxymethyl cellulose (Cellulose gum)	Bulking agent, Emulsifier, Firming agent, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener
157.	469	Sodium carboxymethyl cellulose, enzymatically hydrolysed (Cellulose gum, enzymatically hydrolyzed)	Stabilizer, Thickener
158.	331(i)	Sodium dihydrogen citrate	Acidity regulator, Emulsifier, Sequestrant, Thickener
159.	350(ii)	Sodium DL-malate	Acidity regulator, Humectant
160.	316	Sodium erythorbate (Sodium isoascorbate)	Anti-oxidant
161.	365	Sodium fumarates	Acidity regulator
162.	576	Sodium gluconate	Sequestrant, Stabilizer, Thickener
163.	500(ii)	Sodium hydrogen carbonate	Acidity regulator, Anti-caking agent, Raising agent
164.	350(i)	Sodium hydrogen DL-malate	Acidity regulator, Humectant
165.	514(ii)	Sodium hydrogen sulfate	Acidity regulator
166.	524	Sodium hydroxide	Acidity regulator
167.	325	Sodium lactate	Acidity regulator, Anti-oxidant, Bulking agent, Humectant, Thickener
168.	281	Sodium propionate	Preservative
169.	500(iii)	Sodium sesquicarbonate	Acidity regulator, Anti-caking agent, Raising agent
170.	-	Sodium starch glycolate	Binder, Thickening agent, Disintegrant
171.	514(i)	Sodium sulfate	Acidity regulator
172.	420(i)	Sorbitol	Bulking agent, Humectant, Sequestrant, Stabilizer, Sweetener
173.	420(ii)	Sorbitol syrup	Bulking agent, Humectant, Sequestrant, Stabilizer, Sweetener
174.	1420	Starch acetate	Emulsifier, Stabilizer, Thickener
175.	1450	Starch sodium octenyl succinate	Emulsifier, Stabilizer, Thickener
176.	1405	Starches, enzyme treated	Emulsifier, Stabilizer, Thickener
177.	473a	Sucrose Oligoesters, Type I and Type II	Emulsifier, Stabilizer
178.	553(iii)	Talc	Anti-caking agent, Glazing agent, Thickener
179.	417	Tara gum	Gelling agent, Stabilizer, Thickener
180.	957	Thaumatococcus	Flavour enhancer, Sweetener
181.	171	Titanium dioxide	Colour



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<b>182.</b>	413	Tragacanth gum	Emulsifier, Stabilizer, Thickener
<b>183.</b>	1518	Triacetin	Carrier, Emulsifier, Humectant
<b>184.</b>	380	Triammonium citrate	Acidity regulator
<b>185.</b>	333(iii)	Tricalcium citrate	Acidity regulator, Firming agent, Sequestrant, Stabilizer
<b>186.</b>	332(ii)	Tripotassium citrate	Acidity regulator, Sequestrant, Stabilizer
<b>187.</b>	331(iii)	Trisodium citrate	Acidity regulator, Emulsifier, Sequestrant, Stabilizer
<b>188.</b>	415	Xanthan gum	Emulsifier, Gelling agent, Stabilizer, Thickener
<b>189.</b>	967	Xylitol	Emulsifier, Humectant, Stabilizer, Thickener