

## List of Designated Additives

The substances below are the designated additives appearing in Table 1, as mentioned in Article 12 of the Enforcement Regulations under the Food Sanitation Law. These additives are listed here in alphabetic order. They are 439 in total as of April 10, 2014. The number preceding the name of each additive is the sequence number given to the corresponding additive in the original Japanese table.

15	Acesulfame Potassium
19	Acetaldehyde
309	Acetic Acid, Glacial
22	Acetone
21	Acetophenone
16	Acetylated Distarch Adipate
18	Acetylated Distarch Phosphate
17	Acetylated Oxidized Starch
5	Adipic Acid
28	DL-Alanine
178	Aliphatic Higher Alcohols Ref.
179	Aliphatic Higher Aldehydes (except those generally recognized as highly toxic) Ref.
180	Aliphatic Higher Hydrocarbons (except those generally recognized as highly toxic) Ref.
166	Allyl Cyclohexylpropionate
350	Allyl Hexanoate (Allyl Caproate)
48	Allyl Isothiocyanate (Volatile Oil of Mustard)
413	Aluminum Ammonium Sulfate (Crystal: Ammonium Alum, Desiccated: Burnt Ammonium Alum)
414	Aluminum Potassium Sulfate (Crystal: Alum or Potassium Alum, Desiccated: Burnt Alum)
25	(3-Amino-3-carboxypropyl)dimethylsulfonium chloride
39	Ammonia
31	Ammonium Alginate
228	Ammonium Bicarbonate (Ammonium Hydrogen Carbonate)
225	Ammonium Carbonate
76	Ammonium Chloride
430	Ammonium Dihydrogen Phosphate (Ammonium Phosphate, Monobasic or Monoammonium Phosphate)
91	Ammonium Persulfate
415	Ammonium Sulfate
26	Amyl alcohol
27	alpha-Amylcinnamaldehyde (alpha-Amylcinnamic Aldehyde)
24	Anisaldehyde (p-Methoxybenzaldehyde)
30	L-Arginine L-Glutamate
359	Aromatic Alcohols Ref.
360	Aromatic Aldehydes (except those generally recognized as highly toxic) Ref.
7	L-Ascorbic Acid (Vitamin C)
9	L-Ascorbic Acid 2-glucoside
12	L-Ascorbic Palmitate (Vitamin C Palmitate)
10	L-Ascorbic Stearate (Vitamin C Stearate)
14	Aspartame (alpha-L-Aspartyl-L-Phenylalanine Methyl Ester)
23	Azoxystrobin
355	Benzaldehyde
36	Benzoic Acid
89	Benzoyl Peroxide
151	Benzyl Acetate
354	Benzyl Alcohol
346	Benzyl Propionate
294	Biotin
296	Bisbentiamine (Benzoylthiamine Disulfide)
372	d-Borneol
331	Butanol
150	Butyl Acetate
332	Butylamine
401	Butyl Butyrate
287	Butyl p-Hydroxybenzoate
334	Butylated Hydroxyanisole
174	Butylated Hydroxytoluene
333	Butyraldehyde
397	Butyric Acid
140	Calcium Acetate
33	Calcium Alginate
8	Calcium L-Ascorbate
227	Calcium Carbonate
92	Calcium Carboxymethylcellulose (Calcium Cellulose Glycolate)

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78	Calcium Chloride
103	Calcium Citrate
434	Calcium Dihydrogen Phosphate (Calcium Phosphate, Monobasic)
317	Calcium Dihydrogen Pyrophosphate (Acid Calcium Pyrophosphate)
70	Calcium Disodium Ethylenediaminetetraacetate (Calcium Disodium EDTA)
116	Calcium Gluconate
111	Calcium Glycerophosphate
212	Calcium Hydroxide (Slaked Lime)
276	Calcium Lactate
433	Calcium Monohydrogen Phosphate (Calcium Phosphate, Dibasic)
158	Calcium Oxide
292	Calcium Pantothenate
344	Calcium Propionate
407	Calcium 5'-Ribonucleotide
155	Calcium Saccharin
125	Calcium Silicate
224	Calcium Sorbate
216	Calcium Stearate
218	Calcium Stearoyl Lactylate (Calcium Stearyl Lactylate)
417	Calcium Sulfate
272	Carbon Dioxide (Carbonic Acid, Gas)
94	beta-Carotene
270	Chlorine Dioxide
2	Chlorous Acid Water
136	Cholecalciferol (Vitamin D <sub>3</sub> )
172	1,8-Cineole (Eucalyptol)
210	Cinnamaldehyde (Cinnamic Aldehyde)
127	Cinnamic Acid
144	Cinnamyl Acetate
209	Cinnamyl Alcohol (Cinnamic Alcohols)
169	Citral
100	Citric Acid
170	Citronellal
171	Citronellol
143	Citronellyl Acetate
97	Citronellyl Formate
254	Copper Chlorophyll
252	Copper Salts (limited to Copper Gluconate and Cupric Sulfate)
142	Cyclohexyl Acetate
400	Cyclohexyl Butyrate
167	L-Cystein Monohydrochloride
242	Decanal (Decyl Aldehyde)
243	Decanol (Decyl Alcohol)
429	Diammonium Hydrogen Phosphate (Diammonium Phosphate or Ammonium Phosphate, Dibasic)
175	Dibenzoyl Thiamine
176	Dibenzoyl Thiamine Hydrochloride
165	2,3-Diethyl-5-methylpyrazine
181	2,3-Dimethylpyrazine
182	2,5-Dimethylpyrazine
183	2,6-Dimethylpyrazine
184	2,6-Dimethylpyridine
173	Diphenyl (Biphenyl)
431	Dipotassium Hydrogen Phosphate (Dipotassium Phosphate or Potassium Phosphate, Dibasic)
168	Disodium 5'-Cytidylate (Sodium 5'-Cytidylate)
318	Disodium Dihydrogen Pyrophosphate (Acid Disodium Pyrophosphate)
71	Disodium Ethylenediaminetetraacetate (Disodium EDTA)
112	Disodium Glycyrrhizinate
99	Disodium 5'-Guanylate (Sodium 5'-Guanylate)
435	Disodium Hydrogen Phosphate (Disodium Phosphate)
55	Disodium 5'-Inosinate (Sodium 5'-Inosinate)
408	Disodium 5'-Ribonucleotide (Sodium 5'-Ribonucleotide)
135	Disodium Succinate
191	Disodium DL-Tartrate (Disodium <i>dl</i> -Tartrate)
192	Disodium L-Tartrate (Disodium <i>l</i> -Tartrate)
58	Disodium 5'-Uridylate (Sodium 5'-Uridylate)
424	Distarch Phosphate
75	Ergocalciferol (Calciferol or Vitamin D <sub>2</sub> )

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73	Erythorbic Acid (Isoascorbic Acid)
60	Ester Gum
61	Esters Ref.
72	Ethers Ref.
139	Ethyl Acetate
20	Ethyl Acetoacetate
399	Ethyl Butyrate
128	Ethyl Cinnamate
244	Ethyl Decanoate (Ethyl Caprate)
62	Mixture of 2-Ethyl-3,5-dimethylpyrazine and 2-Ethyl-3,6-dimethylpyrazine
352	Ethyl Heptanoate (Ethyl Enanthate)
351	Ethyl Hexanoate (Ethyl Caproate)
286	Ethyl <i>p</i> -Hydroxybenzoate
45	Ethyl Isovalerate
66	2-Ethyl-3-methylpyrazine
67	2-Ethyl-5-methylpyrazine
68	2-Ethyl-6-methylpyrazine
69	5-Ethyl-2-methylpyridine
84	Ethyl Octanoate (Ethyl Caprylate)
325	Ethyl Phenylacetate
343	Ethyl Propionate
64	2-Ethylpyrazine
65	3-Ethylpyridine
63	Ethylvanillin
82	Eugenol
177	Fatty Acids Ref.
106	Ferric Ammonium Citrate
79	Ferric Chloride
105	Ferric Citrate
319	Ferric Pyrophosphate
330	Ferrocyanides (Potassium Ferrocyanide (Potassium Hexacyanoferrate(II)), Calcium Ferrocyanide (Calcium Hexacyanoferrate(II)), Sodium Ferrocyanide (Sodium Hexacyanoferrate(II)))
117	Ferrous Gluconate (Iron Gluconate)
418	Ferrous Sulfate
337	Fludioxonil
396	Folic Acid
205	Food Blue No.1 (Brilliant Blue FCF) and its Aluminum Lake
206	Food Blue No.2 (Indigo Carmine) and its Aluminum Lake
204	Food Green No.3 (Fast Green FCF) and its Aluminum Lake
195	Food Red No.2 (Amaranth) and its Aluminum Lake
196	Food Red No.3 (Erythrosine) and its Aluminum Lake
197	Food Red No.40 (Allura Red AC) and its Aluminum Lake
198	Food Red No.102 (New Coccine)
199	Food Red No.104 (Phloxine)
200	Food Red No.105 (Rose Bengale)
201	Food Red No.106 (Acid Red)
202	Food Yellow No.4 (Tartrazine) and its Aluminum Lake
203	Food Yellow No.5 (Sunset Yellow FCF) and its Aluminum Lake
335	Fumaric Acid
338	Furfurals and its derivatives (except those generally recognized as highly toxic) Ref.
131	Geraniol
141	Geranyl Acetate
96	Geranyl Formate
114	Gluconic Acid
113	Glucono- $\delta$ -Lactone (Gluconolactone)
119	L-Glutamic Acid
109	Glycerol (Glycerin)
110	Glycerol Esters of Fatty Acids
108	Glycine
349	Hexanoic Acid (Caproic Acid)
132	High Test Hypochlorite
295	L-Histidine Monohydrochloride
81	Hydrochloric Acid
88	Hydrogen Peroxide
299	Hydroxycitronellal
300	Hydroxycitronellal Dimethylacetal
302	Hydroxypropyl Cellulose

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301	Hydroxypropyl Distarch Phosphate
304	Hydroxypropyl Methylcellulose
303	Hydroxypropyl Starch
162	Hypochlorous Acid Water
56	Imazalil
57	Indoles and its derivatives Ref.
41	Ion Exchange Resin
40	Ionone
277	Iron Lactate
161	Iron Sesquioxide (Diiron Trioxide or Iron Oxide Red)
138	Isoamyl Acetate
42	Isoamylalcohol
398	Isoamyl Butyrate
95	Isoamyl Formate
44	Isoamyl Isovalerate
323	Isoamyl Phenylacetate
342	Isoamyl Propionate
50	Isobutanol
51	Isobutyraldehyde (Isobutanal)
284	Isobutyl <i>p</i> -Hydroxybenzoate
324	Isobutyl Phenylacetate
43	Isoeugenol
54	L-Isoleucine
53	Isopentylamine
52	Isopropanol
101	Isopropyl Citrate
285	Isopropyl <i>p</i> -Hydroxybenzoate
46	Isoquinoline
47	Isothiocyanates (except those generally recognized as highly toxic) Ref.
49	Isovaleraldehyde
130	Ketones Ref.
274	Lactic Acid
402	Lactones (except those generally recognized as highly toxic) Ref.
406	Linalool
153	Linalyl Acetate
403	L-Lysine L-Aspartate
405	L-Lysine L-Glutamate
404	L-Lysine Monohydrochloride
231	Magnesium Carbonate
80	Magnesium Chloride
214	Magnesium Hydroxide
436	Magnesium Monohydrogen Phosphate
160	Magnesium Oxide
126	Magnesium Silicate
217	Magnesium Stearate
420	Magnesium Sulfate
421	DL-Malic Acid ( <i>d</i> /-Malic Acid)
373	Maltol
374	D-Mannitol (D-Mannite)
393	<i>d</i> /-Menthol ( <i>d</i> /-Peppermint Camphor)
394	<i>l</i> -Menthol (Peppermint Camphor)
152	<i>l</i> -Menthyl Acetate
377	DL-Methionine
378	L-Methionine
289	<i>p</i> -Methylacetophenone
38	Methyl Anthranilate
386	2-Methylbutanol
387	3-Methyl-2-butanol
389	<i>trans</i> -2-Methyl-2-butenal
390	3-Methyl-2-butenal
391	3-Methyl-2-butenol
388	2-Methylbutyraldehyde
383	Methyl Cellulose
129	Methyl Cinnamate
382	6,7-Dihydro-5-methyl-5 <i>H</i> -cyclopentapyrazine
392	Methyl Hesperidin (Soluble Vitamin P)
379	Methyl <i>N</i> -Methylantranilate

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384	Methyl beta-Naphthyl Ketone
385	2-Methypyrazine
381	6-Methylquinoline
380	5-Methylquinoxaline
157	Methyl Salicylate
120	Monoammonium L-Glutamate
122	Monocalcium Di-L-Glutamate
124	Monomagnesium Di-L-Glutamate
102	Monopotassium Citrate and Tripotassium Citrate
121	Monopotassium L-Glutamate
13	Monosodium L-Aspartate
336	Monosodium Fumarate (Sodium Fumarate)
123	Monosodium L-Glutamate
134	Monosodium Succinate
425	Monostarch Phosphate
395	Morpholine Salts of Fatty Acids
265	Natamycin
279	Neotame
268	Nicotinamide (Niacinamide)
267	Nicotinic Acid (Niacin)
264	Nisin
4	Nitrous Oxide
280	gamma-Nonalactone (Nonalactone)
83	Octanal (Capryl Aldehyde or Octyl Aldehyde)
185	Oxalic Acid
159	Oxidized Starch
356	2-Pentanol ( <i>sec</i> -Amyl Alcohol)
357	trans-2-Pentenal
358	1-Penten-3-ol
353	<i>l</i> -Perillaldehyde
149	Phenethyl Acetate (Phenylethyl Acetate)
327	Phenethylamine
328	Phenol Ethers (except those generally recognized as highly toxic) Ref.
329	Phenols (except those generally recognized as highly toxic) Ref.
322	L-Phenylalanine
86	<i>o</i> -Phenylphenol and Sodium <i>o</i> -Phenylphenate
326	2-(3-Phenylpropyl)pyridine
439	Phosphated Distarch Phosphate
423	Phosphoric Acid
305	Piperidine
306	Piperonal (Heliotropine)
307	Piperonyl Butoxide
369	Polybutene (Polybutylene)
363	Polyisobutylene (Butyl Rubber)
364	Polysorbate 20
365	Polysorbate 60
366	Polysorbate 65
367	Polysorbate 80
148	Polyvinyl Acetate
368	Polyvinylpyrrolidone
32	Potassium Alginate
189	Potassium DL-Bitartrate (Potassium Hydrogen DL-Tartrate or Potassium Hydrogen <i>d</i> l-Tartrate)
190	Potassium L-Bitartrate (Potassium Hydrogen L-Tartrate or Potassium Hydrogen <i>d</i> -Tartrate)
186	Potassium Bromate
226	Potassium Carbonate (anhydrous)
77	Potassium Chloride
432	Potassium Dihydrogen Phosphate (Monopotassium Phosphate)
115	Potassium Gluconate
211	Potassium Hydroxide (Caustic Potash)
275	Potassium Lactate
375	Potassium Metaphosphate
193	Potassium Nitrate
281	Potassium Norbixin
370	Potassium Polyphosphate
316	Potassium Pyrophosphate (Tetrapotassium Pyrophosphate)
313	Potassium Pyrosulfite (Potassium Hydrogen Sulfite or Potassium Metabisulfite)
223	Potassium Sorbate

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416	Potassium Sulfate
339	Propanol
340	Propionaldehyde
341	Propionic Acid
361	Propyl Gallate
288	Propyl <i>p</i> -Hydroxybenzoate
347	Propylene Glycol
35	Propylene Glycol Alginate
348	Propylene Glycol Esters of Fatty Acids
310	Pyrazine
311	Pyridoxine Hydrochloride (Vitamin B <sub>6</sub> )
312	Pyrimethanil
321	Pyrrole
315	Pyrrolidine
409	Riboflavin (Vitamin B <sub>2</sub> )
411	Riboflavin 5'-Phosphate Sodium (Riboflavin Phosphate Sodium, Vitamin B <sub>2</sub> Phosphate Sodium)
410	Riboflavin Tetrabutryate (Vitamin B <sub>2</sub> Tetrabutryate)
154	Saccharin
271	Silicon Dioxide (Silica Gel)
208	Silicone Resin (Polydimethylsiloxane)
147	Sodium Acetate
34	Sodium Alginate
11	Sodium L-Ascorbate (Vitamin C Sodium)
37	Sodium Benzoate
229	Sodium Bicarbonate (Bicarbonate Soda or Sodium Hydrogen Carbonate)
230	Sodium Carbonate (Crystal: Carbonate Soda, Anhydrous: Soda Ash)
93	Sodium Carboxymethylcellulose (Sodium Cellulose Glycolate)
251	Sodium Carboxymethylstarch
90	Sodium Caseinate
3	Sodium Chlorite
137	Sodium Chondroitin Sulfate
253	Sodium Copper Chlorophyllin
248	Sodium Dehydroacetate
437	Sodium Dihydrogen Phosphate (Monosodium Phosphate)
74	Sodium Erythorbate (Sodium Isoascorbate)
104	Sodium Ferrous Citrate (Sodium Iron Citrate)
118	Sodium Gluconate
164	Sodium Hydrosulfite (Hydrosulfite)
213	Sodium Hydroxide (Caustic Soda)
163	Sodium Hypochlorite (Hypochlorite of Soda)
245	Sodium Iron Chlorophyllin
278	Sodium Lactate
422	Sodium DL-Malate (Sodium <i>d/l</i> -Malate)
376	Sodium Metaphosphate
266	Sodium Methoxide (Sodium Methylate)
194	Sodium Nitrate
6	Sodium Nitrite
282	Sodium Norbixin
87	Sodium Oleate
293	Sodium Pantothenate
362	Sodium Polyacrylate
371	Sodium Polyphosphate
345	Sodium Propionate
320	Sodium Pyrophosphate (Tetrasodium Pyrophosphate )
314	Sodium Pyrosulfite (Sodium Metabisulfite, Acid Sulfite of Soda)
156	Sodium Saccharin (Soluble Saccharin)
219	Sodium Stearoyl Lactylate
419	Sodium Sulfate
29	Sodium Sulfite
222	Sorbic Acid
220	Sorbitan Esters of Fatty Acids
221	D-Sorbitol (D-Sorbit)
146	Starch Acetate
85	Starch Sodium Octenyl Succinate
133	Succinic Acid
215	Sucralose (Trichlorogalactosucrose)

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207	Sucrose Esters of Fatty Acids
269	Sulfur Dioxide (Sulfurous Acid, Anhydride)
412	Sulfuric Acid
308	Sunflower Lecithin
187	DL-Tartaric Acid ( <i>d</i> -Tartaric Acid)
188	L-Tartaric Acid ( <i>d</i> -Tartaric Acid)
250	Terpene Hydrocarbons Ref.
249	Terpineol
145	Terpinyl Acetate
246	5,6,7,8-Tetrahydroquinoxaline
247	2,3,5,6-Tetramethylpyrazine
241	L-Theanine
232	Thiabendazole
235	Thiamine Dicylsulfate (Vitamin B <sub>1</sub> Dicylsulfate)
238	Thiamine Dilaurylsulfate (Vitamin B <sub>1</sub> Dilaurylsulfate)
233	Thiamine Hydrochloride (Vitamin B <sub>1</sub> Hydrochloride)
234	Thiamine Mononitrate (Vitamin B <sub>1</sub> Mononitrate)
237	Thiamine Naphthalene-1,5-Disulfonate (Vitamin B <sub>1</sub> Naphthalene-1,5-Disulfonate)
236	Thiamine Thiocyanate (Vitamin B <sub>1</sub> Thiocyanate)
239	Thioethers (except those generally recognized as highly toxic) Ref.
240	Thiols (Thioalcohols) (except those generally recognized as highly toxic) Ref.
262	DL-Threonine
263	L-Threonine
273	Titanium Dioxide
255	<i>d</i> - $\alpha$ -Tocopherol
256	<i>all-rac</i> - $\alpha$ -Tocopheryl Acetate
257	<i>R,R,R</i> - $\alpha$ -Tocopheryl Acetate
427	Tricalcium Phosphate (Calcium Phosphate, Tribasic)
428	Trimagnesium Phosphate
260	Trimethylamine
261	2,3,5-Trimethylpyrazine
426	Tripotassium Phosphate (Potassium Phosphate, Tribasic)
107	Trisodium Citrate (Sodium Citrate)
438	Trisodium Phosphate (Sodium Phosphate, Tribasic)
258	DL-Tryptophan
259	L-Tryptophan
59	$\gamma$ -Undecalactone (Undecalactone)
291	Valeraldehyde
290	L-Valine
283	Vanillin
297	Vitamin A (Retinol)
298	Vitamin A Fatty Acids Esters (Retinol Esters of Fatty Acids Esters)
98	Xylitol
1	Zinc salts (limited to Zinc Gluconate and Zinc Sulfate)

Ref.: Refer to <http://www.ffcr.or.jp/zaidan/FFCRHOME.nsf/pages/list-desin.add-x>