

Table 14-2. Concentration (mg/kg) of food additives by food category for older children (7-14 year olds).

For undetected samples, the detection limit or the determination limit was applied in estimation.

☐ : Detection limit is used.
 * : Quantitation limit is used.

Compound	Group A/B *	7-14 year olds							Maximum intake
		I. Seasonings and beverages	II. Cereals	III. Potatoes, legumes and nuts	IV. Fish/shellfish and meat	V. Fats/oils and milk/milk products	VI. Sugar and confections/savories	VII. Fruits, vegetables, and seaweeds	
Food Intake (g)		119.43	243.26	147.19	200.31	340.41	46.73	354.99	
Aspartame	A	1.11468	0.24326	0.14719	0.20031	* 1.70205	1.183826667	0.35499	4.95
Xylitol	B	1.1943	2.4326	1.4719	2.0031	3.4041	15.8882	3.5499	29.9
Glycyrrhizine	B	0.2281113	0.012163	* 0.073595	* 0.100155	0.0170205	0.0448608	* 0.177495	0.653
Sodium saccharin	A	0.011943	0.048652	0.029438	0.18	0.068082	0.009346	* 0.177495	0.525
D-Sorbitol	B	40.6062	58.3824	45.6289	178.2759	6.8082	180.3778	173.9451	684
D-Mannitol	B	21.4974	946.2814	104.5049	4.0062	3.4041	4.2057	117.1467	1201
Amaranth	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Erythrosine	A	0.00023886	0.0004865	0.00029438	0.00060093	0.00068082	0.00009346	0.00070998	0.0031
Allura red AC	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
New coccine	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00212994	0.00432
Phloxine	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Rose bengale	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Acid red	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Tartrazine	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00014019	0.00070998	0.00295
Sunset yellow FCF	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Fast green FCF	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Brilliant blue FCF	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Indigo carmine	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Titanium dioxide	B	0.11943	0.24326	0.14719	0.20031	0.34041	0.04673	0.35499	1.45
β -Carotene	B	0.1520742	0.0113521	0.0029438	0.0080124	0.0351757	0.014019	1.5666892	1.79
Norbixine	A	0.059715	0.12163	0.073595	0.100155	0.170205	0.023365	0.177495	0.726
Sulfurous acid	B	0.0059715	0.24326	0.14719	0.20031	0.170205	0.04673	0.35499	1.17
Benzoic acid	A	0.48560238	0.0538415	0.061868863	0.03999523	0.56666918	0.022913277	0.03762894	1.27
Sorbic acid	A	0.0059715	1.76	1.02	12.19	0.0170205	0.45	0.4	15.8
Dehydroacetic acid	A	0.0179145	0.036489	0.0220785	0.0300465	0.0510615	0.0070095	0.0532485	0.218
Isobutyl <i>p</i> -hydroxybenzoate	A	0.0059715	0.024326	0.014719	0.020031	0.0170205	0.004673	0.035499	0.122
Isopropyl <i>p</i> -hydroxybenzoate	A	0.0059715	0.024326	0.014719	0.020031	0.0170205	0.004673	0.035499	0.122
Ethyl <i>p</i> -hydroxybenzoate	A	0.059715	0.024326	0.014719	0.020031	0.0170205	0.004673	0.035499	0.176
Butyl <i>p</i> -hydroxybenzoate	A	0.310518	0.024326	0.014719	0.020031	0.0170205	0.004673	0.035499	0.427
Propyl <i>p</i> -hydroxybenzoate	A	0.0059715	0.024326	0.014719	0.020031	0.0170205	0.004673	0.035499	0.122
Propionic acid	B	0.342366	0.535172	* 0.29438	0.494098	* 0.34041	* 0.09346	* 0.70998	2.81
EDTA	A	0.059715	0.24326	0.14719	0.20031	0.34041	0.04673	0.35499	1.39
Erythorbic acid	A	0.011943	0.024326	0.014719	0.1922976	0.034041	0.004673	0.035499	0.317
Isopropyl citrate	A	0.059715	0.12163	0.073595	0.100155	0.170205	0.023365	0.177495	0.726

Compound	Group A/B *	7-14 year olds							Maximum intake
		I. Seasonings and beverages	II. Cereals	III. Potatoes, legumes and nuts	IV. Fish/shellfish and meat	V. Fats/oils and milk/milk products	VI. Sugar and confections/savories	VII. Fruits, vegetables, and seaweeds	
L-Cysteine hydrochloride	B	15.5259	4	19.28189	4.9	4.3	0.60749	14.7	63.3
Butylated hydroxytoluene (BHT)	A	0.00298575	0.012163	* 0.014719	0.0100155	0.00851025	* 0.004673	* 0.035499	0.0886
d- α -Tocopherol	B	0.7691292	0.644639	0.2487511	1.6305234	2.8288071	0.780391	0.4863363	7.39
d- β -Tocopherol	B	0.0143316	0.0900062	0.0632917	0.020031	0.0748902	0.051403	0.0035499	0.318
d- γ -Tocopherol	B	0.2734947	0.620313	1.560214	0.2563968	4.391289	0.906562	0.0496986	8.06
d- δ -Tocopherol	B	0.2531916	0.24326	0.8433987	0.040062	0.4459371	0.205612	* 0.0035499	2.04
Butylated hydroxyanisole (BHA)	A	0.00298575	0.012163	* 0.014719	0.0100155	0.00851025	* 0.004673	* 0.035499	0.0886
Propyl gallate	A	0.059715	0.24326	0.14719	0.20031	0.170205	0.04673	0.35499	1.22
Nitrite	B	0.11943	0.12163	0.220785	* 0.020031	0.0170205	0.0023365	0.0177495	0.519
Nitrate	B	1.277901	0.340564	0.750669	0.620961	0.782943	0.906562	215.12394	220
Imazaryl	A	0.00011943	0.0004865	0.00029438	0.00040062	0.00034041	0.00009346	0.00070998	0.00244
<i>o</i> -Phenylphenol (OPP)	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Diphenyl	A	0.00023886	0.0004865	0.00029438	0.00040062	0.00068082	0.00009346	0.00070998	0.0029
Thiabendazole	A	0.000023886	9.73E-05	0.000058876	0.000080124	0.000068082	0.000018692	0.000603	0.00095
L-Aspartic acid	B	68.19453	23.1097	65.94112	39.66138	4.6	5.09357	76.67784	283
DL-Alanine	B	102.35151	3.7	34.88403	161.44986	4	4.6	89.81247	401
Disodium 5'-inosinate	B	10.521783	0.097304	0.058876	1.562418	0.068082	0.065422	0.141996	12.5
Disodium 5'-uridylylate	B	0.967383	0.097304	0.058876	0.120186	0.068082	0.107479	0.141996	1.56
Disodium 5'-guanylylate	B	1.946709	0.097304	0.058876	0.100155	0.068082	0.182247	0.141996	2.6
Glycine	B	43.47252	16.05516	14.719	111.57267	0.170205	4.71973	18.3	209
L-Glutamic acid	B	859.896	55.70654	113.18911	173.46846	17.6	28.31838	93.71736	1342
Disodium 5'-cytidylate	B	0.095544	0.097304	0.058876	0.140217	0.068082	0.070095	0.141996	0.672
L-Theanine	B	5.2	0.24326	1.4719	0.9	0.170205	0.04673	1	9.03
L-Isoleucine	B	56.60982	0.6	29.14362	40.66293	0.6	1.8	23	152
L-Tryptophan	B	1.55259	2.1	16.1909	0.60093	0.6	0.9346	5.67984	27.7
L-Threonine	B	46.21941	1.2163	25.61106	3.20496	0.408492	1.8692	28.3992	107
L-Valine	B	62.58132	2.18934	44.157	55.68618	4.6	4.11224	36.91896	210
L-Histidine hydrochloride	B	26.99118	2.1	20.31222	163.65327	1.5	0.74768	26.1	241
L-Phenylalanine	B	54.9378	4.2	54.31311	47.07285	1.36164	2.89726	30.88413	196
DL-Methionine	B	15.88419	1.2163	19.42908	35.05425	1.02123	0.70095	6.9	80.2
L-Lysine hydrochloride	B	62.1036	4.7	79.77698	45.27006	4.76574	2.28977	39.75888	239
L-Ascorbic acid	B	15.40647	0.559498	22.37288	8.433051	2.076501	10.37406	56.08842	115
L-Ascorbyl stearate	A	0.047772	0.097304	0.058876	0.080124	0.136164	0.018692	0.141996	0.581
L-Ascorbyl palmitate	A	0.047772	0.097304	0.058876	0.080124	0.136164	0.018692	0.141996	0.581
Thiamine hydrochloride	B	0.071658	0.2262318	0.1192239	0.0140217	0.1089312	0.0242996	0.1668453	0.731
Riboflavin	B	0.1146528	0.1410908	0.1354148	0.5047812	0.6331626	0.04673	0.1348962	1.71
Glycerol	B	240.8505	184.06673	113.8269333	42.0651	* 34.041	23.52076667	* 70.998	709
Silicone resin	A	0.11943	0.24326	0.44157	0.20031	0.34041	0.04673	0.35499	1.75
Propylene glycol	A	3.5829	5.10846	0.29438	* 2.0031	* 3.4041	1.8692	0.70998	17
Adipic acid	B	0.059715	0.3251575	0.073595	0.100155	0.170205	0.023365	0.3751061	1.13
Citric acid	B	454.2321	* 4.8652	532.3371667	2.0031	436.8595	93.30423333	379.8393	1903

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Gluconic acid	B	24.16279893	3.58995	8.3545044	17.6860376	* 3.4041	4.915777927	18.53722281	80.7
Succinic acid	B	68.0751	41.3542	4.906333333	2.0031	18.1552	0.4673	3.5499	139
L-Tartaric acid	B	1.1943	17.0282	1.4719	17.3602	83.9678	13.5517	3.5499	138
Lactic acid	B	144.1122	613.82607	494.0677667	564.8742	105.5271	13.39593333	113.5968	2049
Acetic acid	B	180.97626	268.96447	62.55575	61.76225	31.20425	8.380246667	60.58496	674
Fumaric acid	B	0.95544	0.24326	4.219446667	4.40682	* 1.36164	1.791316667	19.16946	32.1
DL-Malic acid	B	579.6336	81.086667	136.3960667	37.3912	0.34041	39.7205	523.0186	1398
Calcium	B	31.45	50.65	69.5	86.41	385.68	27.54	73.34	725
Orthophosphoric acid	A	105.0984	267.586	176.628	580.899	544.656	31.3091	234.2934	1940
Aluminum	B	0.9717621	1.0379093	0.240900967	0.4660546	0.0896413	1.1752595	1.7228848	5.7
Iron	B	0.644922	1.1116982	1.4247992	2.2441397	0.3358712	0.4341217	1.9323289	8.13
Magnesium	B	23.56	59.4	64.7	50.4	36.8	11.4	53.39	300
Nordihydroguaiaretic acid	B	0.059715	0.24326	0.14719	0.20031	0.34041	0.04673	0.35499	1.39
Naringin	B	0.59715	1.2163	0.73595	1.00155	1.70205	0.23365	1.77495	7.26
Hesperidine	B	3.53576496	1.2163	0.73595	1.00155	1.70205	0.23365	21.73935094	30.2
Kojic acid	B	0.059715	0.12163	0.073595	0.100155	0.170205	0.023365	0.177495	0.726
L-Asparagine	B	3.9	0.48652	166.3247	0.40062	* 0.34041	15.84147	113.24181	301
L-Glutamine	B	4.7772	0.48652	113.77787	0.7	0.34041	4.90665	489.8862	615
L-Arginine	B	67.47795	6.4	95.6735	0.420651	0.374451	4.85992	109.33692	285
L-Cystine	B	0.059715	0.24326	0.5	0.20031	0.170205	0.04673	1.6	2.82
L-Serine	B	66.28365	4.8652	37.38626	2.60403	0.6	2.42996	52.89351	167
L-Hydroxyproline	B	0.71658	0.48652	0.29438	2.60403	0.9	0.18692	0.70998	5.9
L-Tyrosine	B	12.30129	4.37868	44.157	2.1	2.38287	2.6	18.81447	86.7
L-Proline	B	68.31396	4.13542	29.58519	50.27781	9	3.41129	73.12794	238
L-Leucine	B	90.7668	8.1	57.84567	86.73423	7.82943	2.3365	40.11387	294

* Group A/B: Food additives in Group A do not from naturally occur and those in Group B do.