

Table 14-1. Concentration (mg/kg) of food additives by food category for younger children (1-6 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 *	1-6 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)		113.94	153.31	91.57	128.32	205.81	45.14	234.61	
Aspartame	A	0.5697	0.15331	0.09157	0.12832	* 1.02905	1.008	0.23461	3.21
Xylitol	B	1.1394	1.5331	0.9157	1.2832	2.0581	16.7018	2.3461	26
Glycyrrhizine	B	0.1333098	0.0076655	0.0531106	* 0.06416	0.0102905	0.0306952	* 0.117305	0.417
Sodium saccharin	A	0.011394	0.030662	0.018314	0.08	0.041162	0.009028	* 0.117305	0.308
D-Sorbitol	B	60.3882	49.0592	47.6164	103.9392	4.1162	170.1778	131.3816	567
D-Mannitol	B	14.8122	475.261	70.5089	6.416	2.0581	4.514	70.383	643
Amaranth	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Erythrosine	A	0.00022788	0.0003066	0.00018314	0.00051328	0.00041162	0.00009028	0.00046922	0.0022
Allura red AC	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
New coccine	A	0.00022788	0.0003066	0.00018314	0.00076992	0.00041162	0.00009028	0.00117305	0.00316
Phloxine	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Rose bengale	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Acid red	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Tartrazine	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00049654	0.00046922	0.00235
Sunset yellow FCF	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Fast green FCF	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Brilliant blue FCF	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Indigo carmine	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Titanium dioxide	B	0.11394	0.15331	0.09157	0.12832	0.20581	0.04514	0.23461	0.973
β -Carotene	B	0.0782388	0.0097096	0.0027471	0.0051328	0.043906133	0.0167018	1.2340486	1.39
Norbixine	A	0.05697	0.076655	0.045785	0.06416	0.102905	0.02257	0.117305	0.48635
Sulfurous acid	B	0.005697	0.15331	0.09157	0.12832	0.102905	0.04514	0.23461	0.762
Benzoic acid	A	0.25685874	0.0326039	0.041786443	0.025193493	0.175693137	0.02442074	0.024477643	0.581
Sorbic acid	A	0.005697	1.34	0.91	10.31	0.0102905	0.3	0.25	13.1
Dehydroacetic acid	A	0.017091	0.0229965	0.0137355	0.019248	0.0308715	0.006771	0.0351915	0.146
Isobutyl <i>p</i> -hydroxybenzoate	A	0.005697	0.015331	0.009157	0.012832	0.0102905	0.004514	0.023461	0.0813
Isopropyl <i>p</i> -hydroxybenzoate	A	0.005697	0.015331	0.009157	0.012832	0.0102905	0.004514	0.023461	0.0813
Ethyl <i>p</i> -hydroxybenzoate	A	0.034182	0.015331	0.009157	0.012832	0.0102905	0.004514	0.023461	0.11
Butyl <i>p</i> -hydroxybenzoate	A	0.136728	0.015331	0.009157	0.012832	0.0102905	0.004514	0.023461	0.212
Propyl <i>p</i> -hydroxybenzoate	A	0.005697	0.015331	0.009157	0.012832	0.0102905	0.004514	0.023461	0.0813
Propionic acid	B	0.197496	* 0.30662	0.280814667	0.534666667	* 0.20581	* 0.09028	* 0.46922	2.08
EDTA	A	0.05697	0.15331	0.09157	0.12832	0.20581	0.04514	0.23461	0.916
Erythorbic acid	A	0.011394	0.015331	0.009157	0.1437184	0.020581	0.004514	0.023461	0.228
Isopropyl citrate	A	0.05697	0.076655	0.045785	0.06416	0.102905	0.02257	0.117305	0.486

Compound	Group A/B *	1-6 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	9.91278	3	14.83434	2.82304	3.8	0.54168	9.2	44.1
Butylated hydroxytoluene (BHT)	A	0.0028485	* 0.015331	0.0045785	0.006416	0.00514525	0.002257	0.0117305	0.0483
d- α -Tocopherol	B	0.7645374	0.4216025	0.1987069	1.2832	1.7246878	0.753838	0.4058753	5.55
d- β -Tocopherol	B	0.0159516	0.0521254	0.0375437	* 0.0012832	0.0596849	0.058682	* 0.0023461	0.228
d- γ -Tocopherol	B	0.2916864	0.3740764	0.998113	0.2489408	2.552044	0.853146	0.0281532	5.35
d- δ -Tocopherol	B	0.2837106	0.1349128	0.961485	* 0.0012832	0.2510882	0.171532	* 0.0023461	1.81
Butylated hydroxyanisole (BHA)	A	0.0028485	* 0.015331	0.0045785	0.006416	0.00514525	0.002257	* 0.023461	0.06
Propyl gallate	A	0.05697	0.15331	0.09157	0.12832	0.102905	0.04514	0.23461	0.813
Nitrite	B	0.11394	0.0076655	0.109884	0.006416	0.0102905	0.002257	0.0117305	0.262
Nitrate	B	1.321704	0.260627	1.080526	0.3208	0.41162	0.808006	124.3433	129
Imazaryl	A	0.00011394	0.0003066	0.00018314	0.00025664	0.00020581	0.00009028	0.00046922	0.00163
o-Phenylphenol (OPP)	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Diphenyl	A	0.00022788	0.0003066	0.00018314	0.00025664	0.00041162	0.00009028	0.00046922	0.00195
Thiabendazole	A	0.000022788	6.132E-05	0.000036628	0.000051328	0.000041162	0.000018056	0.00493	0.000516
L-Aspartic acid	B	48.53844	17.47734	49.35623	25.664	1.23486	4.46886	49.97193	197
DL-Alanine	B	65.85732	3.6	26.00588	108.81536	1.23486	4.514	56.3064	266
Disodium 5'-inosinate	B	7.725132	0.022788	0.061324	0.6416	0.041162	0.018056	0.093844	8.6
Disodium 5'-uridyate	B	0.786186	0.022788	0.061324	0.076992	0.061743	0.094794	0.093844	1.2
Disodium 5'-guanylate	B	1.390068	0.022788	0.061324	0.051328	0.041162	0.094794	0.093844	1.76
Glycine	B	26.88984	12.2	11.17154	70.19104	0.102905	4.78484	11.2	137
L-Glutamic acid	B	622.1124	30.81531	94.3171	101.75776	2.8	23.96934	47.86044	923
Disodium 5'-cytidylate	B	0.091152	0.061324	0.036628	0.076992	0.102905	0.063196	0.093844	0.526
L-Theanine	B	5.2	0.214634	1.09884	0.51328	0.102905	0.04514	0.23461	7.41
L-Isoleucine	B	35.8911	0.168641	20.96953	27.33216	0.41162	1.8056	14.54582	101
L-Tryptophan	B	1.2	1.6	10.25584	0.38496	0.288134	0.85766	3.04993	17.6
L-Threonine	B	28.37106	0.61324	18.40557	1.6	0.102905	1.76046	18.29958	69.2
L-Valine	B	38.62566	1.07317	30.95066	39.65088	3.29296	3.74662	25.57249	143
L-Histidine hydrochloride	B	17.6607	1.3	14.28492	98.93472	0.9	0.63196	21.1149	155
L-Phenylalanine	B	35.09352	3.21951	40.01609	30.92512	1.23486	2.66326	19.6	133
DL-Methionine	B	9.91278	0.91986	13.27765	23.35424	0.61743	0.58682	3.98837	52.7
L-Lysine hydrochloride	B	38.96748	2.60627	55.30828	21.1728	2.4	2.0313	25.10327	148
L-Ascorbic acid	B	19.02798	0.628571	7.572839	6.043872	1.584737	13.85798	31.90696	80.6
L-Ascorbyl stearate	A	0.045576	0.061324	0.036628	0.051328	0.082324	0.018056	0.093844	0.389
L-Ascorbyl palmitate	A	0.045576	0.061324	0.036628	0.051328	0.082324	0.018056	0.093844	0.389
Thiamine hydrochloride	B	0.0592488	0.1410452	0.0714246	0.0038496	0.0802659	0.0230214	0.0961901	0.475
Riboflavin	B	0.0865944	0.0950522	0.1043898	0.3284992	0.4486658	0.0442372	0.093844	1.2
Glycerol	B	150.7806	81.765333	78.13973333	29.94133333	* 20.581	19.56066667	* 46.922	428
Silicone resin	A	0.5697	0.15331	0.27471	0.12832	0.20581	0.04514	0.23461	1.61
Propylene glycol	A	2.8485	2.60627	* 0.9157	* 1.2832	* 2.0581	1.85074	* 2.3461	13.9
Adipic acid	B	0.05697	0.2197443	0.045785	0.06416	0.102905	0.02257	* 0.23461	0.747
Citric acid	B	365.3676	4.0882667	415.4225667	* 2.5664	321.7496333	86.36786667	290.1343667	1486

Compound	Group A/B *	1-6 year olds							Maximum intake
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Gluconic acid	B	24.48923814	3.7321275	6.76830498	12.67322539	4.309318383	5.397585407	15.74303483	73.1
Succinic acid	B	82.0368	22.9965	2.7471	1.2832	15.09273333	0.4514	2.3461	127
L-Tartaric acid	B	1.1394	8.6875667	0.9157	18.39253333	62.42903333	14.8962	36.75556667	143
Lactic acid	B	138.2472	365.38883	209.0848333	564.1802667	149.5552667	10.8336	68.81893333	1506
Acetic acid	B	110.48382	140.68748	51.98123667	37.25557333	18.59150333	7.839313333	36.75556667	404
Fumaric acid	B	0.72162	0.15331	2.686053333	1.967573333	* 0.82324	2.196813333	13.68558333	22.2
DL-Malic acid	B	458.7984	39.8606	129.1137	24.3808	2.0581	43.7858	381.6322667	1080
Calcium	B	28.9	30.25	49.26	51.42	288.75	28.23	50.39	527
Orthophosphoric acid	A	83.1762	168.641	128.198	372.128	411.62	31.1466	154.8426	1350
Aluminum	B	1.3718376	0.6255048	0.224651733	0.454680533	0.042534067	1.056276	1.389673233	5.17
Iron	B	0.5248836	0.735888	0.983156567	1.543261867	0.173566433	0.377069467	1.394365433	5.73
Magnesium	B	16.41	37.04	42.78	31.95	27.11	10.59	37.4	203
Nordihydroguaiaretic acid	B	0.05697	0.15331	0.09157	0.12832	0.20581	0.04514	0.23461	0.916
Naringin	B	0.5697	0.76655	0.45785	0.6416	1.02905	0.2257	1.17305	4.864
Hesperidine	B	4.15068228	0.76655	0.45785	0.6416	1.02905	0.2257	15.88450466	23.3
Kojic acid	B	0.05697	0.076655	0.045785	0.06416	0.102905	0.02257	0.117305	0.486
L-Asparagine	B	9.22914	0.7	97.9799	0.25664	0.20581	11.37528	80.94045	201
L-Glutamine	B	4.5576	0.45993	67.30395	0.51328	0.20581	3.56606	312.0313	389
L-Arginine	B	48.31056	6.1324	66.11354	0.307968	0.102905	3.34036	71.08683	195
L-Cystine	B	0.05697	0.15331	0.45785	0.12832	0.102905	0.04514	1	1.94
L-Serine	B	43.18326	3.0662	28.66141	1.6	0.267553	2.34728	34.25306	113
L-Hydroxyproline	B	0.6	0.30662	0.18314	1.53984	0.5	0.13542	0.46922	3.73
L-Tyrosine	B	7.86186	3.3	31.77479	1.41152	1.85229	2.12158	11.1	59.4
L-Proline	B	49.10814	2.45296	22.98407	36.44288	5.7	3.29522	46.922	167
L-Leucine	B	56.17242	5.21254	45.05244	57.23072	5.55687	2.39242	28.1532	200

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