

Table 14-4. Concentration (mg/kg) of food additives by food category for adults (20-64 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 *	20-64 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)		253.08	276.10	141.42	234.98	124.36	31.97	427.93	
Aspartame	A	1.27	0.276	0.141	0.235	* 0.6218	1.29	0.428	4.26
Xylitol	B	2.53	2.76	1.41	2.35	1.24	1.92	4.28	16.5
Glycyrrhizine	B	0.228	0.0138	0.0735	* 0.11749	0.00622	0.00160	* 0.213965	0.654
Sodium saccharin	A	0.0253	0.0552	0.0283	0.44	0.0249	0.00639	0.32	0.9
D-Sorbitol	B	43.0	58.0	76.4	254	1.24	168	295	896
D-Mannitol	B	43.0	613	127	9.40	1.24	3.84	210	1007
Amaranth	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.0000639	0.000856	0.00298
Erythrosine	A	0.000506	0.000552	0.000283	0.00235	0.000249	0.0000639	0.000856	0.00486
Allura red AC	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.0000639	0.000856	0.00298
New coccine	A	0.000506	0.000552	0.000283	0.000940	0.000249	0.0000639	0.00514	0.00773
Phloxine	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.000064	0.000856	0.00298
Rose bengale	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.0000639	0.000856	0.00298
Acid red	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.0000959	0.000856	0.00301
Tartrazine	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.000671	0.000856	0.00359
Sunset yellow FCF	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.000128	0.000856	0.00304
Fast green FCF	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.0000639	0.000856	0.00298
Brilliant blue FCF	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.0000639	0.000856	0.00298
Indigo carmine	A	0.000506	0.000552	0.000283	0.000470	0.000249	0.0000639	0.000856	0.00298
Titanium dioxide	B	0.253	0.276	0.141	0.235	0.124	0.0320	0.428	1.49
β -Carotene	B	0.181	0.0138	0.00424	0.0110	0.0124	0.00682	1.70	1.93
Norbixine	A	0.127	0.138	0.0707	0.117	0.0622	0.0160	0.214	0.745
Sulfurous acid	B	0.012654	0.2761	0.14142	0.23498	0.06218	0.03197	0.42793	1.19
Benzoic acid	A	0.4120986	0.0487777	0.073067	0.061486433	0.182021587	0.014652917	0.043791503	0.836
Sorbic acid	A	0.012654	1.79	1.34	12.07	0.006218	0.69	2.03	17.9
Dehydroacetic acid	A	0.037962	0.041415	0.021213	0.035247	0.018654	0.0047955	0.0641895	0.223
Isobutyl <i>p</i> -hydroxybenzoate	A	0.012654	0.02761	0.014142	0.023498	0.006218	0.003197	0.042793	0.13
Isopropyl <i>p</i> -hydroxybenzoate	A	0.012654	0.02761	0.014142	0.023498	0.006218	0.003197	0.042793	0.13
Ethyl <i>p</i> -hydroxybenzoate	A	0.075924	0.02761	0.014142	0.023498	0.006218	0.003197	0.042793	0.193
Butyl <i>p</i> -hydroxybenzoate	A	0.177156	0.02761	0.014142	0.023498	0.006218	0.003197	0.042793	0.295
Propyl <i>p</i> -hydroxybenzoate	A	0.012654	0.02761	0.014142	0.023498	0.006218	0.003197	0.042793	0.13
Propionic acid	B	1.046064	* 0.5522	0.358264	0.892924	* 0.12436	* 0.06394	* 0.85586	3.89
EDTA	A	0.12654	0.2761	0.14142	0.23498	0.12436	0.03197	0.42793	1.36
Erythorbic acid	A	0.025308	0.02761	0.014142	0.1668358	0.012436	0.003197	0.042793	0.292
Isopropyl citrate	A	0.12654	0.13805	0.07071	0.11749	0.06218	0.015985	0.213965	0.745

Compound	Group A/B *	20-64 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	25.05492	4.6	38.1834	5.8	3.48208	0.1	20.8	98
Butylated hydroxytoluene (BHT)	A	0.006327	0.013805	* 0.014142	0.011749	0.003109	* 0.003197	* 0.042793	0.0951
d- α -Tocopherol	B	1.4450868	0.530112	0.311124	2.490788	2.089248	0.322897	0.6547329	7.84
d- β -Tocopherol	B	0.0278388	0.080069	0.0749526	0.023498	0.0460132	0.0111895	* 0.0042793	0.268
d- γ -Tocopherol	B	0.3568428	0.46937	3.11124	0.6273966	3.096564	0.41561	0.0813067	8.16
d- δ -Tocopherol	B	0.37962	0.160138	1.866744	0.0986916	0.3618876	0.1102965	* 0.0042793	2.98
Butylated hydroxyanisole (BHA)	A	0.006327	* 0.02761	* 0.01412	0.011749	0.003109	* 0.003197	* 0.042793	0.109
Propyl gallate	A	0.12654	0.2761	0.14142	0.23498	0.06218	0.03197	0.42793	1.3
Nitrite	B	0.25308	0.013805	0.339408	0.011749	0.006218	0.0015985	0.0213965	0.647
Nitrate	B	2.454876	0.52459	0.650532	0.634446	0.273592	0.335685	284.14552	289
Imazaryl	A	0.00025308	0.0005522	0.00028284	0.00046996	0.00012436	0.00006394	0.00085586	0.0026
o-Phenylphenol (OPP)	A	0.00050616	0.0005522	0.00028284	0.00046996	0.00024872	0.00006394	0.00085586	0.00298
Diphenyl	A	0.00050616	0.0005522	0.00028284	0.00046996	0.00024872	0.00006394	0.00085586	0.00298
Thiabendazole	A	0.000050616	0.0001104	0.000056568	0.000093992	0.000024872	0.000012788	0.00107	0.000142
L-Aspartic acid	B	108.8244	30.6471	90.08454	37.5968	2.11412	3.45276	97.99597	371
DL-Alanine	B	165.26124	7.4547	44.26446	183.2844	2.8	1.53456	127.52314	532
Disodium 5'-inosinate	B	27.58572	0.11044	0.056568	0.58745	0.024872	0.012788	0.171172	28.5
Disodium 5'-uridyate	B	1.01232	0.11044	0.056568	0.164486	0.024872	0.015985	0.171172	1.56
Disodium 5'-guanylate	B	3.492504	0.11044	0.056568	0.11749	0.024872	0.019182	0.171172	3.99
Glycine	B	66.30696	20.7075	18.24318	152.26704	1.11924	1.9182	35.94612	297
L-Glutamic acid	B	1242.6228	58.8093	197.988	220.8812	2.11412	6.58582	171.172	1900
Disodium 5'-cytidylate	B	0.050616	0.11044	0.056568	0.11749	0.024872	0.015985	0.171172	0.547
L-Theanine	B	14.67864	* 0.5522	2.6	2.7	0.06218	0.03197	1.4	22
L-Isoleucine	B	91.1088	* 0.5522	32.24376	41.1215	0.99488	0.03197	33.2	199
L-Tryptophan	B	4.7	6.5	15.69762	0.70494	0.37308	0.19182	7.5	35.7
L-Threonine	B	69.85008	2	30.82956	3.05474	0.8	0.3197	40.1	147
L-Valine	B	101.73816	2.3	54.16386	62.2697	3.60644	0.19182	51.77953	276
L-Histidine hydrochloride	B	43.0236	2.4849	25.03134	222.76104	0.8	0.09591	36.7	331
L-Phenylalanine	B	88.578	7.4547	73.67982	54.51536	2.2	0.44758	44.07679	271
DL-Methionine	B	20.75256	2.761	24.32424	38.7717	0.8	0.03197	7.9	95.3
L-Lysine hydrochloride	B	98.19504	5.6	114.26736	54.75034	3.85516	0.09591	59.05434	336
L-Ascorbic acid	B	14.602716	0.46937	13.01064	9.681176	0.87052	3.26094	70.60845	113
L-Ascorbyl stearate	A	0.101232	0.11044	0.056568	0.093992	0.049744	0.012788	0.171172	0.596
L-Ascorbyl palmitate	A	0.101232	0.11044	0.056568	0.093992	0.049744	0.012788	0.171172	0.596
Thiamine hydrochloride	B	0.101232	0.24849	0.1187928	0.0070494	0.0385516	0.0086319	0.2096857	0.732
Riboflavin	B	0.1746252	0.11044	0.1385916	0.5686516	0.230066	0.0217396	0.1882892	1.43
Glycerol	B	582.084	108.59933	98.5226	60.31153333	* 12.436	7.6728	* 85.586	955
Silicone resin	A	0.25308	0.2761	3	0.23498	0.12436	0.03197	0.42793	4.35
Propylene glycol	A	6.07392	3.8654	* 1.4142	0.46996	* 1.2436	0.70334	0.94252	14.7
Adipic acid	B	0.12654	0.2834627	0.07071	0.11749	0.06218	0.015985	1.188218967	1.86
Citric acid	B	923.742	2.761	631.676	* 4.6996	134.3088	30.90433333	335.2118333	2063

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Gluconic acid	B	26.3355048	* 2.761	12.74128204	12.30018475	* 1.2436	2.919511057	29.03918716	87.3
Succinic acid	B	171.2508	6.4423333	1.4142	14.88206667	1.2436	0.3197	4.2793	200
L-Tartaric acid	B	2.5308	9.2033333	1.5995	32.8972	32.3336	8.6319	4.2793	91.5
Lactic acid	B	273.3264	708.65667	181.9604	991.6156	260.3269333	3.303566667	174.0248667	2593
Acetic acid	B	265.14348	278.76897	96.02418	82.86961333	33.41138667	3.655236667	90.86380333	851
Fumaric acid	B	3.3744	0.2761	4.52544	* 4.6996	0.911973333	0.948443333	23.67879333	38.4
DL-Malic acid	B	900.9648	59.821667	138.5916	57.17846667	1.2436	24.40376667	517.7953	1700
Calcium	B	39.71	44.01	74.25	95.57	133.56	11.13	98.68	497
Orthophosphoric acid	A	187.2792	386.54	212.13	751.936	223.848	15.985	316.6682	2094
Aluminum	B	2.336772	0.665401	0.3068814	0.916422	0.0522312	0.8235472	2.587550067	7.69
Iron	B	1.0089456	1.0344547	1.6795982	2.686604667	0.080004933	0.325348033	2.616078733	9.43
Magnesium	B	44.74	67.29	63.58	63.54	11.99	4.36	72.79	328
Nordihydroguaiaretic acid	B	0.12654	0.2761	0.14142	0.23498	0.12436	0.03197	0.42793	1.36
Naringin	B	* 2.5308	1.3805	0.7071	1.1749	0.6218	0.15985	2.13965	8.71
Hesperidine	B	2.54252604	1.3805	0.7071	1.1749	0.6218	0.15985	15.96335808	22.6
Kojic acid	B	0.12654	0.13805	0.07071	0.11749	0.06218	0.015985	0.213965	0.745
L-Asparagine	B	5.4	2.1	197.988	0.46996	0.12436	1.24683	129.66279	337
L-Glutamine	B	10.1232	2.761	105.78216	9.8	0.161668	0.19182	492.1195	621
L-Arginine	B	104.01588	8.8352	114.69162	0.8	* 0.12436	1.2788	138.64932	368
L-Cystine	B	0.06833	0.25044	0.7071	0.19219	0.06154	0.0322	2.4	3.71
L-Serine	B	102.75048	5.4	49.497	2.3498	0.87052	0.6394	68.89673	230
L-Hydroxyproline	B	0.75924	0.5522	0.28284	3.4	0.3	0.070334	0.85586	6.22
L-Tyrosine	B	25.56108	6.3503	55.57806	3.99466	1.98976	0.3197	25.24787	119
L-Proline	B	134.38548	3.8	37.33488	14.7	2.9	1.11895	80.45084	275
L-Leucine	B	145.77408	12.8	77.92242	94.69694	4.8	0.15985	59.9102	396

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