

Table 15. Recovery rates by food category, using samples for 20-64 year olds (average: n=3).

No.	Compound (determined as)	Category I		Category II		Category III		Category IV		Category V		Category VI		Category VII	
		Addition conc. (µg/g)	Rate (%)	Addition conc. (µg/g)	Rate (%)	Addition conc. (µg/g)	Rate (%)	Addition conc. (µg/g)	Rate (%)	Addition conc. (µg/g)	Rate (%)	Addition conc. (µg/g)	Rate (%)	Addition conc. (µg/g)	Rate (%)
1	Aspartame	10	89	10	84	10	104	10	98	10	102	10	93	10	63
2	Xylitol	100	112	100	85	100	110	100	103	100	99	100	74	100	122
3	Glycyrrhizine	5	85	5	95	5	85	5	93	5	94	5	94	5	95
4	Sodium saccharin	2.5	86	5	91	5	99	5	93	5	107	5	99	5	99
5	D-Sorbitol	200	104	200	82	500	91	1000	103	100	112	5000	80	700	76
6	D-Mannitol	200	90	2000	71	1000	124	100	126	100	102	100	128	500	106
7	Amaranth	1	91	1	79	1	83	1	81	1	85	1	84	1	84
8	Erythrosine	1	87	1	90	1	100	1	102	1	92	1	94	1	94
9	Allura red AC	1	81	1	82	1	83	1	83	1	85	1	86	1	83
10	New coccine	1	98	1	84	1	88	1	84	1	88	1	90	1	91
11	Phloxine	1	79	1	75	1	80	1	81	1	79	1	83	1	79
12	Rose bengale	1	58	1	95	1	94	1	106	1	83	1	80	1	82
13	Acid red	1	82	1	83	1	83	1	82	1	88	1	90	1	85
14	Tartrazine	1	86	1	83	1	88	1	85	1	89	1	105	1	103
15	Sunset yellow FCF	1	81	1	80	1	80	1	80	1	84	1	88	1	85
16	Fast green FCF	1	82	1	81	1	81	1	81	1	84	1	89	1	85
17	Brilliant blue FCF	1	82	1	81	1	80	1	80	1	84	1	89	1	83
18	Indigo carmine	1	55	1	59	1	69	1	71	1	62	1	66	1	60
19	Titanium dioxide (Titanium)	10	79	10	84	10	79	10	83	10	83	10	82	10	94
20	β -Carotene	0.83	107	0.034	96	0.034	96	0.034	104	0.1	96	0.2	99	3.34	99
21	Norbixine	10	64	10	86	10	68	10	79	10	57	10	49	10	82
22	Sulfurous acid	1	91	10	97	10	95	10	84	10	93	10	89	10	86
23	Benzoic acid	1	78	0.8	78	0.8	80	0.8	75	2	61	0.8	68	0.8	81
24	Sorbic acid	0.5	127	4	94	7	96	40	90	0.5	95	23	95	3	102
25	Dehydroacetic acid	1.5	92	3	94	3	86	1.5	87	3	90	3	86	3	89
26	Isobutyl p-hydroxybenzoate	1	91	1	73	1	71	1	70	1	69	1	70	1	88
27	Isopropyl p-hydroxybenzoate	1	99	1	82	1	85	1	67	1	71	1	71	1	89
28	Ethyl p-hydroxybenzoate	1	54	1	57	1	56	1	65	1	72	1	70	1	58
29	Butyl p-hydroxybenzoate	1	84	1	63	1	63	1	64	1	69	1	69	1	81
30	Propyl p-hydroxybenzoate	1	86	1	60	1	67	1	66	1	71	1	71	1	83
31	Propionic acid	5	100	10	79	10	87	10	79	5	91	10	88	5	84
32	EDTA (EDTACa ₂ Na)	5	89	10	70	10	94	10	82	10	99	10	95	10	87
33	Erythorbic acid	0.9	102	0.9	88	0.9	99	0.9	93	0.9	93	0.9	95	0.9	98
34	Monoisopropyl citrate	10	120	10	50	10	62	10	60	10	74	10	78	10	101
	Diisopropyl citrate	10	111	10	77	10	79	10	87	10	94	10	96	10	104
	Triisopropyl citrate	10	103	10	73	10	76	10	69	10	86	10	89	10	88
35	L-Cysteine hydrochloride (Cysteine)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	Butylated hydroxytoluene	2.5	57	2.5	118	2.5	124	2.5	90	2.5	82	2.5	104	2.5	91
37	d- α -Tocopherol (α -Tocopherol)	10	44	10	88	10	92	10	96	5	77	10	93	10	93

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38	d-β-Tocopherol (β-Tocopherol)	10	84	10	79	10	82	10	92	5	80	10	86	10	93
39	d-γ-Tocopherol (γ-Tocopherol)	10	67	10	78	10	70	10	74	5	71	10	91	10	87
40	d-δ-Tocopherol (δ-Tocopherol)	10	59	10	77	10	81	10	88	5	59	10	97	10	93
41	Butylated hydroxyanisole	2.5	69	2.5	149	2.5	146	2.5	98	2.5	134	2.5	132	2.5	119
42	Propyl gallate	2	158	2	113	2	69	2	72	2	75	2	75	2	111
43	Nitrite (NO ₂)	5	79	1	82	1	78	1	76	2.5	69	1	67	5	70
44	Nitrate (NO ₃)	20	74	5	74	5	106	5	74	20	105	5	100	50	103
45	Imazaryl	0.02	107	0.02	94	0.02	90	0.02	75	0.02	101	0.02	92	0.02	91
46	o-Phenylphenol	0.1	102	0.1	75	0.1	105	0.2	107	0.1	76	0.1	83	0.1	90
47	Diphenyl	0.1	106	0.1	65	0.1	84	0.2	78	0.1	62	0.1	58	0.1	54
48	Thiabendazole	0.004	77	0.004	88	0.004	84	0.004	77	0.004	86	0.004	76	0.004	100
49	L-Aspartic acid (Aspartic acid)	133.1	99	133.1	68	133.1	89	133.1	91	66.6	83	133.1	107	133.1	107
50	DL-Alanine (Alanine)	89.1	99	89.1	85	89.1	113	89.1	95	44.6	139	89.1	107	89.1	100
51	Disodium 5'-inosinate (Inosinic acid)	150	90	4	108	4	101	3	91	2	109	4	93	4	91
52	Disodium 5'-uridyate (Uridylic acid)	5	88	4	108	4	102	4	99	2	108	4	96	4	93
53	Disodium 5'-guanylate (Guanylic acid)	15	91	4	104	4	102	4	89	2	102	4	81	4	96
54	Glycine	75.1	91	75.1	68	75.1	108	75.1	99	37.6	110	75.1	104	75.1	103
55	L-Glutamic acid (Glutamic acid)	147.1	101	147.1	63	700	96	147.1	105	73.6	98	147.1	105	147.1	100
56	Disodium 5'-cytidylate (Cytidylic acid)	2	87	4	104	4	94	4	97	2	109	4	99	4	85
57	L-Theanine (Theanine)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	L-Isoleucine (Isoleucine)	131.2	96	131.2	89	131.2	99	131.2	96	65.6	107	131.2	103	131.2	100
59	L-Tryptophan (Tryptophan)	23.7	97	11.8	86	47.8	112	2.4	109	2.4	72	2.4	106	5.7	109
60	L-Threonine (Threonine)	119.1	106	119.1	86	119.1	100	119.1	99	59.6	100	119.1	104	119.1	100
61	L-Valine (Valine)	117.1	95	117.1	88	117.1	78	117.1	97	58.6	132	117.1	102	117.1	100
62	L-Histidine hydrochloride (Histidine)	155.2	100	155.2	85	155.2	98	155.2	95	77.6	100	155.2	105	155.2	100
63	L-Phenylalanine (Phenylalanine)	165.2	94	165.2	79	165.2	100	165.2	97	82.6	103	165.2	100	165.2	99
64	DL-Methionine (Methionine)	149.2	99	149.2	82	149.2	95	149.2	125	74.6	96	149.2	102	149.2	96
65	L-Lysine hydrochloride (Lysine)	146.2	104	146.2	93	146.2	121	146.2	98	73.1	103	146.2	105	146.2	102
66	L-Ascorbic acid (Total of oxidized and reduced)	60	102	16	92	100	98	40	94	8	87	100	96	160	95
67	L-Ascorbyl stearate	20	90	20	79	20	90	20	89	20	88	20	80	20	89
68	L-Ascorbyl palmitate	20	99	20	101	20	99	20	93	20	93	20	95	20	98
69	Thiamine hydrochloride	0.3	95	1	87	0.8	94	0.1	94	0.3	95	0.3	85	0.6	91
70	Riboflavin	2	93	1	99	1	90	2	98	2	96	2	94	2	93
71	Glycerol	2000	92	400	80	800	102	400	93	400	80	400	91	400	110
72	Silicone resin (dimethylpolysiloxane)	10	91	10	96	10	89	10	94	10	93	10	92	10	91
73	Propylene glycol	20	90	10	109	10	88	20	84	100	83	20	87	100	94
74	Adipic acid	2	88	4	88	4	84	4	90	2	83	4	101	4	86
75	Citric acid	2000	90	2000	105	2000	104	1000	93	2000	90	2000	91	2000	90
76	Gluconic acid	100	86	20	82	80	86	80	95	20	81	80	88	80	86
77	Succinic acid	2000	95	2000	119	2000	92	2000	83	1000	78	1000	96	1000	104
78	L-Tartaric acid	2000	110	2000	113	1000	117	1000	92	1000	81	1000	75	1000	89
79	Lactic acid	2000	93	2000	101	2000	98	2000	90	1000	103	1000	101	1000	95

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80	Acetic acid	1000	104	1000	103	600	88	400	89	300	93	200	94	200	109
81	Fumaric acid	20	107	20	98	20	98	20	89	20	92	20	95	20	117
82	DL-Malic acid	2000	88	2000	101	2000	83	1000	78	2000	88	2000	86	2000	90
83	Calcium	200	86	200	96	500	110	400	129	1,000	105	400	109	200	105
84	Orthophosphoric acid	1000	86	2000	73	2000	94	4000	60	2000	80	1000	70	1000	81
	Polyphosphoric acid (Orthophosphoric acid)	200	110	200	80	200	53	200	74	200	54	200	74	200	90
85	Aluminum	10	110	2	125	2	94	2	85	1	108	30	89	10	112
86	Iron	5	106	4	98	10	106	10	106	1	100	10	100	10	96
87	Magnesium	200	110	200	99	500	101	200	97	100	92	100	102	200	102
88	Nordihydroguaiaretic acid	5	106	10	88	10	84	10	80	10	85	10	105	10	73
89	Naringin	15	79	10	81	10	81	10	79	10	84	10	88	60	91
90	Hesperidine	15	78	10	83	10	96	10	90	10	84	10	91	60	82
91	Kojic acid	10	88	10	84	10	86	10	98	10	98	10	83	10	94
92	L-Asparagine (Asparagine)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	L-Glutamine (Glutamine)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	L-Arginine (Arginine)	174.2	97	174.2	85	174.2	106	174.2	96	87.1	96	174.2	106	174.2	102
95	L-Cystine (Cystine)	240.3	98	240.3	83	240.3	100	240.3	78	120.2	82	240.3	103	240.3	99
96	L-Serine (Serine)	105.1	98	105.1	88	105.1	102	105.1	96	52.6	115	105.1	103	105.1	100
97	L-Hydroxyproline (Hydroxyproline)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
98	L-Tyrosine (Tyrosine)	181.2	97	181.2	81	181.2	100	181.2	95	90.6	103	181.2	101	181.2	95
99	L-Proline (Proline)	115.1	88	115.1	88	115.1	99	115.1	103	57.6	113	115.1	105	115.1	116
100	L-Leucine (Leucine)	131.2	97	131.2	80	131.2	113	131.2	97	65.6	144	131.2	102	131.2	99