

Rebelytics nickel data, unweighted averages, V5.3
July 2019

These tables summarize the complete Rebelytics data collection of nickel in foods. Where $\langle Ni \rangle$ is the average nickel per serving, the standard deviation, σ , is a statistic that means that 68% of the time, a food will have nickel content in the range $[\langle Ni \rangle - \sigma, \langle Ni \rangle + \sigma]$. The last two columns show the minimum and maximum reported values, which gives a better indication of how big the spread can be. Foods with more sources will have more reliable statistics. If a food has only a few sources, the statistics should not be completely trusted but can provide a rough estimate for decision-making.

Dairy products and substitutes

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Whipped cream, 15 g	4	0.06	0.02	0.03	0.08
Cream, 15 g	33	0.38	0.38	0.02	1.83
Cream, non-dairy, 15 g	5	0.47	0.21	0.08	0.68
Sour cream, 24 g	4	0.73	0.01	0.72	0.74
Whey drink, 250 g*	1	0.77	0.00	0.77	0.77
Cream cheese, 30 g	14	0.80	0.39	0.18	1.33
Evaporated milk, 15 g	7	0.83	0.35	0.30	1.20
Quark, 100 g	11	1.56	0.70	0.46	2.70
Crème fraîche, 55 g	9	1.25	1.77	0.21	6.00
Cheeses, 30 g	133	1.52	1.96	0.09	10.80
Yogurt drink, 188 g	11	1.82	1.47	0.51	5.64
Cultured milk, 188 g	16	2.67	1.64	0.72	6.36
Processed cheese, 30 g	32	3.41	2.74	0.51	12.27
Cottage cheese, 125 g	30	3.57	2.41	0.00	12.25
Yogurt, with fruit, 175 g	33	3.98	3.37	0.53	15.51
Almond milk, 250 g*	1	4.13	0.00	4.13	4.13
Yogurt, 175 g	34	5.34	5.32	0.00	28.88
Rice milk, 250 g	8	6.61	3.75	1.50	13.00
Milk, 250 g	106	5.94	5.62	0.25	46.75
Milk powder, 25 g	7	5.46	9.98	0.31	29.75
Buttermilk, 250 g	10	7.98	8.26	2.01	31.25
Paneer/khoa/halloumi, 80 g	3	14.67	10.58	6.40	29.60
Soy milk, 250 g	26	49.94	32.90	7.50	130.00

Grain products and bakery

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Rice paper, 15 g*	1	0.22	0.00	0.22	0.22
Puff pastry, 21 g	7	1.24	0.23	1.01	1.76
Crackers, saltine or cream, 30 g	5	2.47	0.30	2.10	3.00
Baguette, 75 g	2	2.67	0.04	2.63	2.72
Phyllo, 21 g*	1	1.58	0.00	1.58	1.58
Crackers, butter-type, 30 g	5	2.70	0.63	2.06	3.90
Breadcrumbs, 30 g	2	3.03	1.17	1.87	4.20
Yeast dough, 55 g	5	3.98	0.41	3.33	4.50
Cold cereal, rice, 15 g	7	3.41	1.67	1.50	7.20

Rusk, plain or fruited, 30 g	5	4.20	1.62	2.10	6.00
English muffin, 55 g	4	4.92	0.22	4.69	5.26
Cold cereal, corn, 30 g	24	4.72	3.23	0.09	12.60
Rice cakes, 15 g*	1	5.10	0.00	5.10	5.10
Flatbread, 55 g	9	5.32	2.17	2.98	11.00
Crackers, 30 g	25	4.59	4.12	0.96	14.10
Pasta, rice, cooked, 215 g*	1	5.38	0.00	5.38	5.38
Cold cereal, wheat bran with raisins, 30 g	4	6.35	0.92	5.38	7.43
Rolls and biscuits, 55 g	33	5.68	2.97	2.15	13.37
Bagel, 85 g	5	6.92	0.94	5.67	8.17
Bread, white, 75 g	40	6.22	3.25	2.18	15.90
Crackers, seeded, 30 g*	1	6.75	0.00	6.75	6.75
Hot cereal, corn, cooked, 194 g	5	8.07	0.72	7.11	9.27
Crispbread, 30 g	16	6.71	3.80	2.19	15.81
Croissant-like pastries, 55 g*	1	7.32	0.00	7.32	7.32
Bread, barley, 75 g	6	7.14	3.02	3.78	12.00
Bread, rye, 75 g	47	6.85	3.83	1.88	17.18
Cold cereal, wheat bran, 30 g	20	7.10	4.14	2.43	21.36
Hot cereal, wheat, dry, 40 g	2	7.44	4.56	2.88	12.00
Hot cereal, rice, cooked, 194 g	4	7.71	4.86	4.40	16.10
Hot cereal, rice, dry, 40 g	3	9.87	5.49	4.00	17.20
Hot cereal, wheat, cooked, 194 g	18	9.73	10.37	4.46	51.41
Hot cereal, rye, cooked, 194 g	3	11.01	0.50	10.65	11.72
Bread, whole wheat, 75 g	26	10.74	4.16	2.85	18.60
Cold cereals, junk food, 30 g	8	10.73	4.43	2.70	16.50
Bread, fruited, 75 g	6	11.27	4.32	5.03	14.63
Rolls, oat, 55 g*	1	10.68	0.00	10.68	10.68
Rolls, seeded, 55 g*	1	10.73	0.00	10.73	10.73
Pasta, dry, 85 g	12	10.25	8.29	1.02	30.09
Pasta, cooked, 215 g	41	11.34	6.27	0.14	25.80
Hot cereal, rye, dry, 40 g*	1	12.00	0.00	12.00	12.00
Bread, gluten-free, 75 g	4	12.30	11.21	0.45	30.75
Barley, cooked, 140 g	6	12.82	10.25	3.20	26.08
Rolls, multigrain, 55 g	6	15.56	5.83	3.81	22.39
Bread, multigrain, 75 g	22	14.32	8.73	2.46	34.95
Pasta, whole wheat, cooked, 215 g	4	16.36	6.59	7.14	24.96
Pasta, whole wheat, dry, 85 g	4	15.90	8.92	3.23	25.50
Rolls, multigrain with fruit, 55 g*	1	23.09	0.00	23.09	23.09
Cold cereal, oat ring, 15 g	5	29.27	11.61	6.61	39.42
Pasta, gluten-free, dry, 85 g*	1	29.75	0.00	29.75	29.75
Bread, seeded, 75 g	19	29.48	17.80	8.03	54.60
Bread, oat, 75 g	2	35.47	10.24	25.24	45.71
Cold cereal, granola/muesli, 55 g	11	38.19	14.04	9.35	62.54
Buckwheat crackers, 30 g*	1	59.16	0.00	59.16	59.16
Hot cereal, millet, cooked, 194 g	2	65.86	7.23	58.64	73.09
Hot cereal, 4-grain, cooked, 194 g	4	64.04	29.93	42.37	115.66
Hot cereal, oat, cooked, 194 g	24	79.22	23.83	29.10	121.64
Hot cereal, buckwheat, 140 g	4	85.51	15.39	70.11	100.90

Whole grains, flours and starches

	Number of sources	Average nickel per serving (µg)	Standard deviation	Minimum value	Maximum value
Starch, potato, 10 g	2	0.33	0.08	0.25	0.40
Flour, potato, 30 g*	1	0.90	0.00	0.90	0.90
Starch, rice, 10 g*	1	1.10	0.00	1.10	1.10
Flour, white, 30 g	34	1.95	1.41	0.60	7.50
Starch, corn, 10 g*	1	1.50	0.00	1.50	1.50
Flour, rye, 30 g	16	2.83	1.24	1.32	6.00
Rye kernels, whole/cracked, 45 g	3	3.50	1.17	2.34	5.10
Flour, rye, whole, 30 g	3	3.52	2.09	2.04	6.48
Flour, barley, 30 g	3	4.00	1.41	3.00	6.00
Flour, spelt, 30 g*	1	4.01	0.00	4.01	4.01
Quinoa, raw, 45 g	2	4.57	2.77	1.80	7.34
Quinoa, cooked, 140 g*	1	7.42	0.00	7.42	7.42
Rice, white, cooked, 140 g	23	8.19	3.50	3.36	16.80
Flour, whole wheat, 30 g	5	8.23	3.45	2.91	12.00
Cornmeal, 30 g*	3	8.70	0.00	8.70	8.70
Wheat kernels/bulgur/semolina, 45 g	16	8.87	5.84	1.71	22.05
Wheat bran, 15 g	12	9.87	5.14	3.00	21.00
Wheat germ, 15 g	5	11.37	1.87	8.10	13.80
Rice, white, raw, 45 g	16	11.03	3.93	1.76	18.45
Rice, brown, cooked, 140 g	2	12.60	1.40	11.20	14.00
Flour, spelt, whole, 30 g*	1	11.88	0.00	11.88	11.88
Rice, brown, raw, 45 g	9	11.98	3.45	8.10	17.10
Spelt grain, whole, 45 g*	1	14.32	0.00	14.32	14.32
Flour, cassava, 30 g	2	14.40	3.60	10.80	18.00
Amaranth, raw, 45 g	2	14.49	7.11	7.38	21.60
Barley, raw, 45 g	4	15.08	8.87	4.50	23.85
Flour, teff, 30 g	2	18.45	2.25	16.20	20.70
Oat bran, 15 g*	2	18.00	0.00	18.00	18.00
Sorghum, 45 g*	1	26.55	0.00	26.55	26.55
Flour, rice, 30 g	2	33.86	30.65	3.21	64.50
Flour, millet, 30 g*	1	36.00	0.00	36.00	36.00
Flour, buckwheat, 30 g*	1	39.00	0.00	39.00	39.00
Flour, soy, 15 g	3	47.50	7.78	42.00	58.50
Millet, raw, 40 g	7	43.60	18.78	22.40	79.60
Flour, oat, 30 g*	1	50.25	0.00	50.25	50.25
Oats, raw, 40 g	8	58.60	28.72	16.20	120.00
Buckwheat, raw, 45 g	7	137.57	63.22	63.00	243.00
Rice, wild, raw, 45 g*	1	148.50	0.00	148.50	148.50
Amaranth, black, raw, 45 g*	1	155.25	0.00	155.25	155.25

Fruits - Berries

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Lingonberries, 80 g	13	3.74	1.88	1.76	8.00
Elderberries, 80 g*	1	3.82	0.00	3.82	3.82
Pomegranate, 80 g*	1	4.00	0.00	4.00	4.00
Gooseberries, 80 g	4	5.01	2.99	2.00	8.00
Cranberries, 55 g	4	5.23	2.92	2.75	9.90
Currants, red or black, 80 g	17	6.35	2.61	2.24	13.60
Blueberries, 80 g	25	6.88	3.56	1.76	19.04
Rowanberries, 80 g*	1	8.00	0.00	8.00	8.00
Strawberries, 140 g	36	9.75	8.49	2.07	45.92
Cloudberries, 80 g	2	15.20	0.80	14.40	16.00
Raspberries, 80 g	25	21.30	18.38	0.64	64.00
Blackberries, 80 g*	1	21.60	0.00	21.60	21.60
Rosehips, 80 g*	1	32.00	0.00	32.00	32.00
Goji berries, 80 g*	1	48.00	0.00	48.00	48.00

Fruits - Citrus

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Lemon / Lime, 55 g	11	4.47	3.12	0.55	12.10
Pomelo, 140 g	3	6.49	4.49	2.38	12.74
Citrus fruits, unspecified, 140 g	14	7.51	2.50	3.08	13.44
Grapefruit, 140 g	11	8.36	7.39	2.10	28.00
Tangerine or mandarin orange, 140 g	10	9.16	7.26	2.80	23.52
Orange, 140 g	18	9.89	8.24	1.40	30.80

Fruits - Other

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Breadfruit, 140 g	3	2.05	0.54	1.54	2.80
Cherries, 140 g	16	3.33	1.18	1.82	5.74
Apple, 140 g	38	3.38	3.44	0.80	16.24
Mango, 140 g	12	6.62	4.68	1.14	15.40
Jack fruit, 140 g	2	9.10	2.10	7.00	11.20
Phalsa, 140 g*	1	8.40	0.00	8.40	8.40
Kiwi, 140 g	21	7.94	8.10	0.92	28.00
Grape, 140 g	41	7.86	13.93	0.90	60.20
Jujube, 140 g	2	12.85	1.65	11.20	14.49
Banana, 140 g	32	11.41	9.43	2.52	37.80
Guava, 140 g	4	13.26	6.68	2.62	19.60
Watermelon, 150 g	14	13.76	6.52	6.15	31.50
Melons, 150 g	31	12.92	8.55	3.00	42.90
Pear, 140 g	36	11.55	13.27	1.05	68.60
Dragon fruit, 140 g	2	14.00	8.40	5.60	22.40
Papaya, 140 g	11	11.94	14.55	2.80	56.00

Karonda fruit, 140 g*	1	14.00	0.00	14.00	14.00
Apricot, canned, 140 g	7	18.16	8.03	11.68	36.40
Fig, 140 g*	1	18.20	0.00	18.20	18.20
Pineapple, 140 g	30	19.58	12.90	4.20	70.00
Peach or nectarine, 140 g	37	18.39	31.30	4.20	193.20
Lychee, 140 g	2	21.00	11.20	9.80	32.20
Persimmon, 140 g	3	29.77	1.26	28.00	30.80
Dates, fresh, 140 g*	1	21.00	0.00	21.00	21.00
Jambu fruit, 140 g*	1	22.40	0.00	22.40	22.40
Plum, 140 g	6	25.38	26.32	6.16	72.80
Passionfruit, 140 g*	1	32.20	0.00	32.20	32.20
Star fruit, 140 g*	1	39.20	0.00	39.20	39.20
Sapota, 140 g*	1	40.60	0.00	40.60	40.60
Bael fruit, 140 g	2	46.90	11.90	35.00	58.80
Avocado, 140 g	12	54.34	36.84	14.00	146.02
Coconut, 140 g	4	100.10	54.41	35.00	180.60

Vegetables - Root

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Potato, instant, 17 g	4	3.19	0.93	1.70	4.25
Salsify, 85 g	2	4.08	0.00	4.08	4.08
Celeriac, 85 g	2	4.34	0.09	4.25	4.42
Radish, 85 g	9	4.32	1.55	2.55	7.65
Rutabaga, 85 g	2	4.63	1.32	3.32	5.95
Carrot, 85 g	16	4.50	2.46	1.40	9.35
Turnip, 85 g*	1	4.59	0.00	4.59	4.59
Onion, 85 g	16	4.17	3.45	1.40	16.15
Kohlrabi, 85 g*	2	5.10	0.00	5.10	5.10
Beets, 85 g	7	6.76	6.73	1.40	22.10
Water chestnut, 85 g*	1	9.35	0.00	9.35	9.35
Parsley root, 85 g*	1	9.44	0.00	9.44	9.44
Potato, 110 g	45	6.98	8.96	0.44	40.70
Parsnip, 85 g	4	16.15	4.29	9.35	21.25
Yam, 110 g	4	17.60	4.47	12.10	22.00
Sweet potato, 110 g	5	17.82	6.28	9.90	28.60
Lotus root, 85 g*	1	19.55	0.00	19.55	19.55
Arracacha, 85 g*	1	20.40	0.00	20.40	20.40
Fennel, 85 g*	2	28.90	0.00	28.90	28.90
Taro root, 85 g*	1	29.75	0.00	29.75	29.75
Cassava, 85 g	3	25.22	20.08	9.35	53.55

Vegetables - Leafy

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Bitter leaf, 85 g*	1	1.28	0.00	1.28	1.28
Celtuse/Chinese lettuce, 85 g*	1	3.66	0.00	3.66	3.66
Jews mallow leaves, 85 g*	1	4.25	0.00	4.25	4.25
Bathua leaves, 85 g*	1	6.80	0.00	6.80	6.80
Mustard leaves, 85 g	2	9.48	3.27	6.21	12.75
Lettuces, 85 g	33	7.96	6.87	0.64	28.90
Cabbage, 85 g	26	8.79	9.81	1.49	45.90
Chard, 85 g	2	10.58	7.27	3.32	17.85
Cauliflower leaves, 85 g*	1	11.05	0.00	11.05	11.05
Kale, 85 g*	1	11.90	0.00	11.90	11.90
Kohlrabi leaves, 85 g*	1	15.30	0.00	15.30	15.30
Plumed cockscomb leaves, 85 g*	1	15.30	0.00	15.30	15.30
Gboma leaves, 85 g*	1	15.56	0.00	15.56	15.56
Amaranth leaves, 85 g	5	19.89	3.86	14.45	25.50
Water leaf, 85 g*	1	16.15	0.00	16.15	16.15
Beet greens, 85 g*	1	17.00	0.00	17.00	17.00
Rumex leaves, 85 g*	1	17.00	0.00	17.00	17.00
Watercress, 85 g	2	18.19	10.71	7.48	28.90
Head/iceberg lettuce, 85 g	16	14.21	19.59	1.40	85.00
Seaweed, 15 g	4	19.02	11.09	5.82	30.00
Spinach, 85 g	9	17.30	16.54	3.57	51.00
Drumstick leaves, 85 g*	1	20.40	0.00	20.40	20.40
Fluted pumpkin leaves, 85 g*	1	20.40	0.00	20.40	20.40
Alfalfa sprouts, 85 g	3	21.82	3.89	17.68	27.03
Radish leaves, 85 g*	1	21.25	0.00	21.25	21.25
Taro leaves, 85 g*	1	22.10	0.00	22.10	22.10
Pumpkin leaves, 85 g*	1	22.95	0.00	22.95	22.95
Arugula/rocket, 85 g*	1	24.65	0.00	24.65	24.65
Collard greens, 85 g*	1	25.50	0.00	25.50	25.50
Fenugreek leaves, 85 g*	1	28.90	0.00	28.90	28.90
Leaf chicory (endive or radicchio), 85 g	3	27.34	17.12	6.89	48.79
Ponnaganni (leaves), 85 g*	1	34.85	0.00	34.85	34.85
Garden cress, 85 g*	1	35.70	0.00	35.70	35.70
Basella leaves, 85 g*	1	37.40	0.00	37.40	37.40
Betel leaves, 85 g	2	39.53	2.98	36.55	42.50
Gogu leaves, 85 g*	2	42.50	0.00	42.50	42.50
Nettle leaves, 85 g*	1	42.50	0.00	42.50	42.50
Agathi leaves, 85 g*	1	57.80	0.00	57.80	57.80

Vegetables - Other

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Pickles, 30 g	9	1.63	1.51	0.18	5.61
Olives, 15 g	7	2.31	1.74	1.05	5.55
Plantain, stem, 85 g*	1	2.55	0.00	2.55	2.55
Leek, 85 g	3	3.77	3.35	1.40	8.50
Celery, 85 g	23	3.90	3.14	1.49	16.15
Tomato, 85 g	22	4.18	4.14	0.60	17.00
Plantain, green, 85 g*	1	4.25	0.00	4.25	4.25
Corn, 85 g	11	5.43	3.05	2.72	13.60
Cucumber, 85 g	31	5.05	5.17	0.51	21.25
Kovai gourd, 85 g	2	6.80	1.70	5.10	8.50
Ash gourd, 85 g*	1	6.80	0.00	6.80	6.80
Bamboo shoot, 85 g*	1	6.80	0.00	6.80	6.80
Cauliflower, 85 g	10	6.19	5.99	0.94	20.40
Mushrooms, 85 g	54	4.77	9.40	0.26	61.20
Plantain, flower, 85 g*	1	7.65	0.00	7.65	7.65
Taro stem, 85 g	2	8.93	2.13	6.80	11.05
Peppers, 85 g	17	8.39	3.22	2.41	14.52
Spring onion, 40 g	2	8.16	4.24	3.92	12.40
Bottle gourd, 85 g	3	9.92	2.23	6.80	11.90
Tomato, sun-dried, 30 g*	1	9.30	0.00	9.30	9.30
Eggplant, 85 g	28	8.57	5.59	0.34	20.40
Drumstick, 85 g*	1	9.35	0.00	9.35	9.35
Rhubarb, 140 g	4	9.78	3.18	5.04	14.00
Zucchini, 85 g	5	9.82	8.74	0.64	21.25
Ridge gourd, 85 g	2	11.05	0.85	10.20	11.90
Snake gourd, 85 g	3	10.20	3.47	5.95	14.45
Pointed gourd, 85 g*	1	10.20	0.00	10.20	10.20
Tinda gourd, 85 g*	1	10.20	0.00	10.20	10.20
Broccoli, 85 g	4	10.31	6.90	4.51	22.10
Squash, 85 g	3	12.64	6.21	3.91	17.85
Artichoke, 85 g*	2	12.75	0.00	12.75	12.75
Snow pea, 85 g*	1	13.01	0.00	13.01	13.01
Asparagus, 85 g*	1	15.30	0.00	15.30	15.30
Pumpkin, 85 g	4	16.72	6.81	5.70	23.80
Bitter melon, 85 g	4	18.28	12.57	9.35	39.95
Green beans, 85 g	9	19.51	11.60	11.05	47.60
Bean sprouts, 65 g	3	20.22	8.07	11.05	30.68
Brussels sprouts, 85 g	5	21.96	19.02	4.76	47.60
Okra, 85 g	2	25.50	15.30	10.20	40.80
Beans, runner, 85 g*	1	22.95	0.00	22.95	22.95
Chayote, 85 g	2	34.85	28.05	6.80	62.90
Peas, 85 g	11	41.72	47.22	6.46	186.15
Peas, dried, 35 g	5	52.08	15.70	32.55	77.00

Vegetables - Prepared

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Mushroom, composite, 107.5 g	11	1.18	0.86	0.34	3.33
Tomato, composite, 107.5 g	14	2.72	2.20	0.53	8.17
Turnip, cooked, 130 g	4	3.70	0.72	3.05	4.91
Cabbage, sauerkraut, 85 g*	1	4.25	0.00	4.25	4.25
Eggplant, cooked, 130 g	6	4.11	4.06	0.57	13.00
Carrot, cooked, 130 g	8	5.13	2.36	0.78	9.10
Okra, cooked, 130 g	4	6.08	0.69	5.08	7.01
Spinach, canned, 130 g*	1	5.46	0.00	5.46	5.46
Nettles, cooked, 130 g*	1	5.59	0.00	5.59	5.59
Potato, instant, prepared, 140 g*	1	5.72	0.00	5.72	5.72
Wax gourd, cooked, 130 g*	1	5.72	0.00	5.72	5.72
Corn, cooked, 130 g	21	5.97	2.75	2.73	14.82
Mushroom, cooked, 130 g	7	5.49	3.99	1.30	13.57
Collard greens, cooked, 130 g	4	6.32	2.49	4.43	10.53
Cabbage, canned, 130 g*	1	6.34	0.00	6.34	6.34
Broccoli, canned, 130 g*	1	6.50	0.00	6.50	6.50
Pumpkin, canned, 130 g*	1	6.50	0.00	6.50	6.50
Pumpkin, marinated, 130 g*	1	6.50	0.00	6.50	6.50
Spinach, cooked, 130 g	5	7.42	1.05	6.28	9.07
Water spinach, cooked, 130 g*	1	7.02	0.00	7.02	7.02
Onion, cooked, 130 g	19	5.95	5.24	1.51	24.96
Zucchini, cooked, 130 g	6	7.68	2.80	3.60	11.70
Beets, canned, 130 g	7	7.90	3.49	4.30	13.00
Spinach, composite, 107.5 g	9	8.45	5.40	4.26	22.68
Green beans, canned, 130 g	4	11.15	1.42	8.98	12.77
Potato, french fried, 70 g	41	10.70	6.36	3.22	31.92
Beets, cooked, 130 g	17	10.32	7.62	2.96	30.55
Broccoli, composite, 107.5 g	15	11.17	6.25	3.33	25.69
Winter squash, cooked, 130 g	4	12.79	4.43	7.10	17.16
Asparagus, cooked, 130 g	12	12.26	6.19	4.86	27.10
Cauliflower, composite, 107.5 g	14	11.74	8.76	1.40	35.26
Potato, cooked, 167 g	34	11.41	9.57	0.67	36.74
Mushroom, canned, 130 g	2	13.13	6.63	6.50	19.76
Tomato, canned, 130 g	5	11.28	11.62	0.42	33.15
Sweet potato, canned, 167 g	4	14.99	4.27	9.57	20.45
Carrot, composite, 107.5 g	13	11.25	12.29	2.15	40.31
Asparagus, canned, 130 g	2	13.85	7.48	6.37	21.32
Cabbage, cooked, 130 g	24	11.20	13.72	1.44	60.45
Cauliflower, cooked, 130 g	6	12.00	13.43	1.47	41.60
Corn, canned, 130 g	8	11.47	16.12	4.16	53.95
Hairy gourd, cooked, 130 g*	1	15.21	0.00	15.21	15.21
Sponge gourd, cooked, 130 g*	1	15.60	0.00	15.60	15.60
Peppers, composite, 107.5 g	13	12.85	16.59	1.51	63.21
Green beans, cooked, 130 g	7	19.74	6.70	6.72	28.86
Broccoli, cooked, 130 g	10	16.09	18.23	4.62	68.90
Rutabaga, cooked, 130 g	14	16.97	24.97	1.87	83.20
Green beans, composite, 107.5 g	13	21.05	18.29	4.95	72.56
Brussels sprouts, cooked, 130 g	13	20.97	24.74	4.16	71.50

En choy (chinese spinach), cooked, 130 g*	1	20.80	0.00	20.80	20.80
Potato, cooked with skin, 167 g	12	26.74	42.75	7.52	163.99
Peas, cooked, 130 g	23	30.84	18.68	12.61	100.75
Gai lan (chinese kale/broccoli), cooked, 130 g*	1	31.20	0.00	31.20	31.20
Sweet potato, cooked, 167 g*	1	31.73	0.00	31.73	31.73
Peas, canned, 130 g	3	42.64	19.86	28.60	70.72
Pumpkin, cooked, 130 g	3	60.99	67.27	9.23	156.00

Meat, poultry, eggs and substitutes

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Rabbit, 125 g*	3	0.63	0.00	0.63	0.63
Egg, 100 g	29	0.93	1.07	0.12	4.00
Bacon, 54 g	7	1.00	1.03	0.43	3.40
Sausage, 75 g	33	1.49	1.11	0.41	4.61
Venison, 125 g	26	1.77	0.60	0.00	2.06
Lamb, 125 g	20	2.24	0.89	0.00	4.25
Beef, 125 g	72	1.80	2.49	0.00	13.50
Ground beef and/or pork, 125 g	12	2.41	1.48	1.25	5.88
Pork, 125 g	54	2.84	1.85	0.30	7.50
Chicken, turkey and other poultry, 125 g	62	3.14	2.36	0.38	12.50
Black pudding, 75 g	3	4.11	4.38	0.83	10.30
Wild boar, 125 g	8	4.92	3.11	2.06	12.50
Veal, 125 g	12	4.36	4.78	1.13	12.50
Mutton, 125 g	7	6.48	5.09	1.25	12.50
Seitan, 100 g*	1	8.40	0.00	8.40	8.40
Organ meats, 125 g	78	7.69	7.20	0.50	37.50
Soya sausage, 75 g*	1	12.38	0.00	12.38	12.38
Goat, 125 g*	3	12.50	0.00	12.50	12.50
Horse, 125 g	3	10.42	11.20	2.50	26.25
Mithun, 125 g	3	45.83	21.25	25.00	75.00
TVP (texturized vegetable protein), 100 g*	1	127.00	0.00	127.00	127.00

Meat, poultry and eggs - Prepared

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Venison, cured, 30 g*	4	0.50	0.00	0.50	0.50
Rabbit, cooked, 100 g*	1	0.60	0.00	0.60	0.60
Bacon, cooked, 15 g	10	1.05	0.51	0.22	1.98
Black pudding, cooked, 55 g	3	1.32	0.64	0.71	2.20
Venison, cooked, 100 g	3	1.73	0.78	1.18	2.84
Pork, cured, 30 g*	1	1.20	0.00	1.20	1.20
Lunch meat, canned, 55 g	16	2.40	0.92	0.88	4.40
Organ meats, salted, 125 g*	2	1.25	0.00	1.25	1.25
Lunch meat, 55 g	60	2.31	2.07	0.36	13.20
Chicken, turkey and other poultry, cured, 30 g*	1	1.85	0.00	1.85	1.85
Beef, cured, 30 g*	1	2.10	0.00	2.10	2.10
Meat jellies, 120 g	5	3.00	1.65	0.60	5.52
Egg powder, 20 g	3	4.47	1.59	2.80	6.60

Egg, cooked, 100 g	34	3.88	3.87	0.70	17.20
Sausage, cooked, 55 g	67	4.60	4.65	0.32	21.01
Chicken, turkey and other poultry, cooked, 100 g	39	4.43	6.53	0.38	33.10
Organ meats, cooked, 100 g	26	4.94	5.72	0.64	21.00
Veal, cooked, 100 g	16	6.08	7.43	0.67	27.40
Pate, 55 g	37	6.01	9.33	0.55	32.45
Mutton, cooked, 100 g	11	18.23	15.55	5.70	60.00
Lamb, cooked, 100 g	22	18.71	22.44	0.70	84.40
Pork, cooked, 100 g	51	17.52	39.21	0.36	178.30
Beef, cooked, 100 g	43	22.82	31.30	0.63	115.20
Ground beef and/or pork, cooked, 100 g	34	42.98	78.87	0.70	308.20
Pork, cured, cooked, 55 g	18	59.54	94.25	1.69	383.08

Fish and seafood

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Fish, roe, 15 g	2	1.35	1.05	0.30	2.40
Shellfish, squid, 125 g	4	4.41	2.21	1.38	7.50
Shellfish, octopus, 125 g	2	5.06	3.69	1.38	8.75
Shellfish, crustaceans, 125 g	18	6.68	6.22	1.25	30.00
Fish, 125 g	212	6.52	9.14	0.00	80.00
Eel, 125 g	4	9.29	9.39	0.21	21.75
Shellfish, oysters, 125 g	2	37.13	12.63	24.50	49.75
Shellfish, clams, 125 g	3	46.96	5.93	40.88	55.00
Shellfish, mussels, 125 g	11	109.76	21.95	86.13	152.50
Shellfish, scallops, 125 g	2	216.25	208.75	7.50	425.00

Fish and seafood - Prepared

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Eel, smoked, 55 g*	1	0.09	0.00	0.09	0.09
Fish, salted or smoked, 55 g	21	0.84	0.41	0.27	1.65
Shellfish, crustaceans, canned, 55 g	4	1.58	0.72	0.60	2.59
Fish, pickled, 55 g	9	2.00	1.33	0.27	3.58
Fish, canned, 55 g	41	2.02	1.85	0.37	7.70
Shellfish, crustaceans, cooked, 100 g	13	3.42	2.00	1.00	7.30
Fish, canned, tomato sauce, 55 g	9	3.61	4.32	1.10	15.40
Shellfish, squid, cooked, 100 g*	1	4.40	0.00	4.40	4.40
Shellfish, unspecified, cooked, 100 g	13	4.83	5.83	1.80	23.00
Fish, cooked, 100 g	71	6.82	8.99	0.00	45.60
Shellfish, oysters, cooked, 100 g*	1	13.00	0.00	13.00	13.00
Shellfish, scallops, cooked, 100 g*	1	18.00	0.00	18.00	18.00
Shellfish, oysters, canned, 55 g*	1	27.50	0.00	27.50	27.50
Shellfish, mussels, cooked, 100 g	3	37.63	14.26	27.10	57.80
Shellfish, mussels, canned, 55 g	2	45.79	0.14	45.65	45.93

Beans and bean products

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Mung bean vermicelli, cooked, 80 g*	1	2.88	0.00	2.88	2.88
Beans, fava, dried, 35 g*	1	14.00	0.00	14.00	14.00
Beans, lentil, canned, 80 g*	1	16.00	0.00	16.00	16.00
Beans, white, cooked, 80 g	4	25.49	1.30	23.54	26.72
Beans, cooked, 80 g	3	29.34	2.08	26.40	30.98
Beans, chickpea, cooked, 80 g*	1	25.60	0.00	25.60	25.60
Beans, fava, fresh, 80 g	2	30.40	0.80	29.60	31.20
Beans, chickpea, canned, 80 g*	1	30.40	0.00	30.40	30.40
Beans, white, canned, 80 g*	1	30.40	0.00	30.40	30.40
Tofu, 85 g*	1	32.30	0.00	32.30	32.30
Beans, fresh, 80 g	3	37.44	21.09	12.80	64.32
Beans, kidney, canned, 80 g*	1	40.00	0.00	40.00	40.00
Beans, pinto, cooked, 80 g	4	50.65	5.65	40.95	54.73
Beans, lima, cooked, 80 g	4	50.55	12.07	35.85	62.52
Beans, pigeon peas, dried, 35 g	2	62.83	6.48	56.35	69.30
Beans, canned, 80 g*	1	67.60	0.00	67.60	67.60
Beans, chickpea, dried, 35 g	5	65.24	30.76	28.35	108.50
Beans, lentil, cooked, 80 g*	1	74.40	0.00	74.40	74.40
Fermented bean products, 85 g*	1	75.65	0.00	75.65	75.65
Beans, lentil, dried, 35 g	7	75.75	23.16	35.35	105.00
Beans, dried, 35 g	10	77.00	25.48	19.95	115.85
Beans, mung, dried, 35 g	4	78.05	37.59	36.05	115.50
Beans, urad, dried, 35 g	2	85.75	1.40	84.35	87.15
Beans, brown, dried, 35 g	4	85.14	21.89	59.50	115.50
Beans, kidney, dried, 35 g	3	90.18	13.54	71.05	100.45
Beans, pigeon peas, fresh, 80 g*	1	96.80	0.00	96.80	96.80
Beans, black, cooked, 80 g*	1	112.00	0.00	112.00	112.00
Beans, soya, dried, 35 g	5	112.28	69.38	53.90	245.00
Beans, white, dried, 35 g*	1	140.00	0.00	140.00	140.00
Soya flakes, 35 g*	1	143.50	0.00	143.50	143.50

Nuts and seeds

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Chestnuts, 30 g*	1	12.90	0.00	12.90	12.90
Peanut butter, 15 g	25	13.04	10.99	5.42	57.00
Safflower seeds, 30 g*	1	15.90	0.00	15.90	15.90
Pistachios, 30 g	5	27.12	3.51	20.70	30.00
Arecanut, 30 g	2	32.25	1.05	31.20	33.30
Almonds, 30 g	6	32.62	7.73	18.10	39.00
Sesame seeds, 30 g	12	33.30	22.64	8.40	78.60
Poppy seeds, 30 g	10	39.00	16.10	7.20	74.70
Flaxseed, 30 g	4	57.30	9.42	45.00	66.90
Hazelnuts, 30 g	21	56.81	21.08	24.30	93.00
Pecans, 30 g*	1	60.00	0.00	60.00	60.00
Peanuts, 30 g	14	50.07	64.10	2.40	219.00

Walnuts, 30 g	6	61.00	23.54	33.00	96.00
Pine nuts, 30 g	5	72.66	10.54	57.30	90.00
Nuts, mixed, 30 g	9	77.63	65.99	30.72	245.07
Niger seeds, 30 g	2	82.50	5.40	77.10	87.90
Seeds, 30 g	13	82.11	21.55	38.40	120.54
Chia seeds, 30 g*	1	90.00	0.00	90.00	90.00
Sunflower seeds, 30 g	9	90.58	12.42	66.00	106.80
Pumpkin seeds, 30 g*	1	93.00	0.00	93.00	93.00
Brazil nuts, 30 g*	1	138.00	0.00	138.00	138.00
Alfalfa seeds, 30 g	2	169.50	49.50	120.00	219.00
Hemp seeds, 30 g*	1	198.00	0.00	198.00	198.00
Cashews, 30 g	3	203.70	18.84	182.10	228.00

Beverages - Alcoholic

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Madeira, 60 g*	1	0.30	0.00	0.30	0.30
Liquor, 30 g	26	0.91	0.92	0.00	3.90
Vermouth, 90 g	6	2.80	0.79	1.89	4.01
Port, 60 g	2	3.00	1.20	1.80	4.20
Wine, 188 g	39	5.88	2.68	0.94	16.36
Cider, 333 g	4	5.20	4.80	0.83	13.32
Beer, 333 g	59	7.66	17.52	0.00	123.88
Sherry, 105 g*	3	14.18	0.00	14.18	14.18

Beverages - Juices

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Lemon juice, 5 g	3	0.24	0.13	0.05	0.33
Lemonade, 250 g	8	2.47	0.51	1.25	3.06
Mango juice, 250 g	3	2.78	0.99	1.48	3.88
Cherry juice, 250 g*	1	2.39	0.00	2.39	2.39
Citrus juice, 250 g	13	3.30	0.92	1.43	4.69
Citrus juice, canned, 250 g	15	3.30	1.30	0.75	6.00
Fruit drink, 250 g	33	3.43	1.91	1.00	10.00
Fruit juice, concentrated, 62.5 g	4	3.86	1.38	2.94	6.25
Strawberry juice, 250 g*	1	3.68	0.00	3.68	3.68
Plum juice, 250 g*	1	4.39	0.00	4.39	4.39
Aloe juice, 250 g*	1	4.75	0.00	4.75	4.75
Sugarcane juice, 250 g*	1	5.00	0.00	5.00	5.00
Grape juice, 250 g	17	5.88	2.38	3.72	11.00
Grapefruit juice, 250 g	5	5.80	3.18	0.75	9.86
Peach juice, 250 g	3	8.47	0.71	7.54	9.28
Apple juice, canned or bottled, 250 g	25	6.15	7.62	1.55	36.00
Pear juice, 250 g	2	8.44	3.19	5.25	11.63
Pineapple juice, 250 g	2	11.76	3.99	7.78	15.75
Tomato juice, 250 g	2	13.75	1.25	12.50	15.00
Passionfruit juice, 250 g*	1	10.55	0.00	10.55	10.55
Tomato juice, canned, 250 g	2	14.75	2.00	12.75	16.75

Apricot juice, 250 g*	1	10.99	0.00	10.99	10.99
Fruit juice, various, canned or bottled, 250 g	20	12.96	6.47	2.50	22.50
Acai juice, 250 g*	1	12.50	0.00	12.50	12.50
Tomato juice, bottled, 250 g	4	19.73	2.49	15.75	22.64
Vegetable juice, 250 g	2	18.63	10.12	8.50	28.75
Vegetable juice, canned, 250 g	13	17.10	21.09	6.25	89.50
Citrus juice, from concentrate, 250 g	19	13.58	31.06	2.50	139.75
Goji juice, 250 g*	1	25.00	0.00	25.00	25.00
Mangosteen juice, 250 g*	1	25.00	0.00	25.00	25.00
Pomegranate juice, 250 g*	1	25.00	0.00	25.00	25.00
Pineapple juice, from concentrate, 250 g	4	29.36	3.70	25.33	33.36
Prune juice, 250 g	5	32.58	3.83	25.00	35.25

Beverages - Hot

	Number of sources	Average nickel per serving (µg)	Standard deviation	Minimum value	Maximum value
Instant coffee, 3 g	3	2.14	0.61	1.29	2.70
Rosehip powder, 3 g*	1	1.20	0.00	1.20	1.20
Green tea, brewed, loose, 250 g	6	6.14	1.60	4.61	8.55
Tea, brewed, loose, 250 g	44	4.73	4.50	1.22	31.25
Coffee, 250 g	40	6.66	6.97	2.03	44.00
Coffee beans, 14 g	3	9.47	2.70	6.02	12.60
Tea, herbal, dry, 3 g	12	9.92	6.36	3.63	23.76
Cereal grain beverage, 250 g	3	9.30	12.87	0.16	27.50
Tea, brewed, bag, 250 g	41	10.09	4.01	2.85	20.14
Green tea, brewed, bag, 250 g	9	14.84	7.29	1.91	21.96
Tea, herbal, 250 g	14	18.71	10.07	1.25	38.75
Tea, brewed, 250 g	19	17.58	14.75	5.08	74.75
Hot chocolate powder, 25 g	4	31.25	18.75	12.50	50.00
Hot chocolate, 250 g	6	43.08	10.41	34.73	57.98
Tea, leaves, 3 g	117	63.30	80.46	2.36	504.00

Beverages - Other

	Number of sources	Average nickel per serving (µg)	Standard deviation	Minimum value	Maximum value
Soft drink syrup, 30 g	2	0.80	0.12	0.68	0.92
Strawberry milk, 250 g*	1	0.88	0.00	0.88	0.88
Water, bottled, 375 g	26	1.65	1.16	0.38	4.33
Water, tap, 375 g	32	1.65	2.53	0.03	11.25
Carbonated drinks, 375 g	21	3.33	1.37	0.38	6.75
Iced tea, 375 g*	1	3.62	0.00	3.62	3.62
Carbonated drinks, canned, 375 g	17	6.30	9.96	0.33	43.88
Malt drink, 250 g	2	16.25	8.75	7.50	25.00
Chocolate milk, 250 g	15	26.14	9.83	12.25	43.25
Oat-based beverage, 250 g	3	32.00	7.88	23.50	42.50
Energy drink, 375 g	20	35.35	33.52	3.75	113.99
Chocolate milkshake, 250 g	5	41.27	14.84	22.50	66.06
Coconut water, 375 g	2	89.06	72.19	16.88	161.25

Herbs and spices

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Salt, 1 g	23	0.05	0.03	0.01	0.14
Saffron, 0.5 g	2	0.06	0.01	0.06	0.07
Chervil, 1.5 g*	2	0.06	0.00	0.06	0.06
Holy basil, 1.5 g*	1	0.09	0.00	0.09	0.09
Mango ginger, 1.5 g*	1	0.17	0.00	0.17	0.17
Onion, dried, 0.5 g*	1	0.17	0.00	0.17	0.17
Mustard seed, 0.5 g	3	0.26	0.09	0.19	0.38
Annatto, 0.5 g	2	0.32	0.01	0.32	0.33
Asafoetida, 0.5 g*	1	0.26	0.00	0.26	0.26
Wasabi, dry, 0.5 g	2	0.35	0.01	0.35	0.36
Dill, fresh, 1.5 g	2	0.27	0.18	0.09	0.45
Cloves, 0.5 g	2	0.42	0.12	0.30	0.54
Turmeric powder, 0.5 g	2	0.41	0.16	0.25	0.57
Linden inflorescence, dry, 0.5 g*	1	0.42	0.00	0.42	0.42
Allspice, 0.5 g	2	0.41	0.29	0.13	0.70
Tamarind, 1.5 g*	1	0.48	0.00	0.48	0.48
Ginger, fresh, 1.5 g	2	0.53	0.08	0.45	0.62
Sumac, 0.5 g	4	0.63	0.14	0.50	0.86
Coriander seeds, 0.5 g	2	0.70	0.02	0.68	0.72
Mint leaves, 1.5 g*	1	0.63	0.00	0.63	0.63
Mango powder, 0.5 g*	1	0.66	0.00	0.66	0.66
Ginger, dry, 0.5 g	7	0.61	0.29	0.28	1.20
Cilantro, 1.5 g	2	0.76	0.10	0.66	0.86
Chives, 1.5 g*	2	0.75	0.00	0.75	0.75
Mahaleb cherry, 0.5 g*	1	0.77	0.00	0.77	0.77
Parsley, dry, 0.5 g	2	0.60	0.51	0.10	1.11
Curry leaves, dry, 0.5 g	5	0.87	0.17	0.57	1.01
Nutmeg, 0.5 g	3	0.90	0.16	0.71	1.11
Paprika, 0.5 g	12	0.82	0.42	0.05	1.42
St. John's Wort, dry, 0.5 g*	1	0.99	0.00	0.99	0.99
Garlic, 4 g	11	0.93	0.51	0.30	1.88
Fenugreek, 0.5 g	4	0.98	0.45	0.27	1.39
Herbs and spices, unspecified, 0.5 g	13	1.01	0.21	0.57	1.50
Garlic, dry, 0.5 g	3	1.04	0.26	0.76	1.39
Cardamom, 0.5 g	4	1.35	0.46	1.00	2.14
Oak bark, dry, 0.5 g*	1	1.02	0.00	1.02	1.02
Pomegranate seed, 0.5 g*	1	1.05	0.00	1.05	1.05
Herbs de Provence, dry, 0.5 g	2	1.63	0.31	1.32	1.94
Peppermint, dry, 0.5 g	5	1.66	0.33	1.25	2.23
Cumin, 0.5 g	7	1.41	0.86	0.80	3.47
Marjoram, dry, 0.5 g	3	1.84	0.09	1.72	1.93
Mace, 0.5 g*	1	1.30	0.00	1.30	1.30
Basil, dry, 0.5 g	6	1.47	0.94	0.37	3.37
Curry leaves, 1.5 g*	1	1.40	0.00	1.40	1.40
Omum, dry, 0.5 g*	1	1.48	0.00	1.48	1.48
Cinnamon, 0.5 g	7	1.19	1.85	0.01	5.65
Bishop's weed, 0.5 g*	1	1.60	0.00	1.60	1.60
Nigella seeds, 0.5 g	5	2.13	0.33	1.57	2.48

Mint, dry, 0.5 g*	1	1.70	0.00	1.70	1.70
Rosemary, fresh, 1.5 g	4	2.30	0.27	1.98	2.73
Anise, 0.5 g*	1	1.99	0.00	1.99	1.99
Parsley, fresh, 1.5 g	10	2.07	1.86	0.11	5.72
Sage, dry, 0.5 g	2	3.19	0.24	2.95	3.44
Anchovy paste, 15 g	2	3.38	0.23	3.15	3.60
Lemon balm, 0.5 g*	1	3.01	0.00	3.01	3.01
Basil, fresh, 1.5 g	4	3.67	0.48	2.99	4.23
Thyme, dry, 0.5 g	5	3.27	1.32	1.24	4.97
Pepper, black, 0.5 g	12	2.48	2.96	0.40	11.50
Oregano, dry, 0.5 g	2	4.90	0.40	4.51	5.30
Ramen noodle powder, 1.5 g*	1	4.88	0.00	4.88	4.88
Hot peppers, dried, 0.5 g	5	4.08	3.03	0.18	7.62
Oregano, fresh, 1.5 g	5	5.26	1.08	3.72	6.45
Cayenne pepper, 0.5 g	3	5.83	4.06	2.19	11.50
Fennel, dry, 0.5 g	3	5.55	5.45	1.43	13.25
Hot peppers, 40 g	10	10.48	3.33	5.60	16.40

Fats and oils

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Cocoa butter, 10 g*	1	0.00	0.00	0.00	0.00
Cottonseed oil, 10 g	2	0.19	0.19	0.00	0.38
Hazelnut oil, 10 g*	1	0.07	0.00	0.07	0.07
Olive oil, 10 g	26	0.26	0.20	0.01	0.70
Corn oil, 10 g	8	0.27	0.20	0.02	0.55
Grapeseed oil, 10 g*	1	0.19	0.00	0.19	0.19
Almond oil, 10 g*	1	0.25	0.00	0.25	0.25
Rice oil, 10 g*	1	0.30	0.00	0.30	0.30
Lard, 10 g	3	0.53	0.15	0.43	0.74
Sunflower oil, 10 g	11	0.39	0.66	0.02	2.40
Vegetable oils, unspecified, 10 g	21	0.56	0.68	0.06	3.29
Butter, 10 g	44	0.56	0.89	0.02	5.90
Sesame oil, 10 g*	1	0.75	0.00	0.75	0.75
Peanut oil, 10 g	2	0.77	0.51	0.26	1.28
Soybean oil, 10 g	7	0.80	1.01	0.03	3.20
Canola/rapeseed oil, 10 g	4	0.93	0.91	0.20	2.50
Margarine, 10 g	56	1.26	2.34	0.02	17.00

Snacks and desserts

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Breadfruit, dried, 40 g*	1	0.48	0.00	0.48	0.48
Popsicle, 30 g	4	0.95	0.03	0.90	0.97
Pork rinds, 20 g	2	1.83	0.77	1.06	2.60
Dried cherry, 40 g*	1	1.20	0.00	1.20	1.20
Graham crackers, 30 g	4	3.04	0.13	2.85	3.20
Gelatin dessert, 130 g	18	2.44	1.63	0.78	8.00
Chewing gum, 3 g	14	2.43	2.46	0.09	8.31

Cookies, not chocolate, 30 g	15	2.53	3.16	0.45	14.10
Pretzels, 50 g	5	3.99	0.61	3.24	5.01
Raisins, yogurt candy coated, 40 g*	1	2.59	0.00	2.59	2.59
Ice cream, vanilla, 129 g	12	3.35	3.00	0.80	12.90
Cereal bar, with fruit, 35 g*	1	3.22	0.00	3.22	3.22
Applesauce, 110 g	20	3.52	4.77	0.50	21.56
Dried strawberry, 40 g*	1	4.38	0.00	4.38	4.38
Banana chips, 40 g*	1	4.80	0.00	4.80	4.80
Raisins, 40 g	23	4.95	7.94	1.12	40.64
Cereal bar, rice, 35 g*	1	7.35	0.00	7.35	7.35
Dried currants, 40 g*	1	8.03	0.00	8.03	8.03
Corn chips, 50 g	10	9.43	1.64	6.90	11.50
Potato chips, 50 g	30	8.67	3.84	1.81	17.10
Savoury crisps, 50 g	8	9.23	6.20	1.00	18.50
Cottage cheese bars, sweet, 40 g	5	9.34	10.21	4.11	29.75
Dried date, 40 g	5	12.24	1.83	8.80	14.00
Snacks, corn-based, 50 g	2	15.50	0.50	15.00	16.00
Popcorn, 50 g	22	15.70	6.38	9.50	40.65
Cookies with chocolate, 30 g	31	16.01	6.34	1.50	33.00
Cereal bar, with chocolate, 35 g	4	17.28	3.99	11.03	22.05
Cookies with nuts, 30 g*	1	15.60	0.00	15.60	15.60
Dried rosehip, 40 g*	1	16.00	0.00	16.00	16.00
Cookies, oat and fruit, 30 g*	1	16.41	0.00	16.41	16.41
Ice cream desserts, 129 g	31	15.41	10.59	2.82	47.73
Cereal bar, multigrain, 35 g	12	16.49	10.61	4.07	42.00
Snacks, potato-based, 50 g*	1	19.00	0.00	19.00	19.00
Licorice, 40 g	4	18.70	9.56	4.00	27.20
Dried fruit, mixed, 40 g	7	16.23	20.36	0.75	64.96
Prune, 40 g	3	23.27	2.17	20.20	24.80
Ice cream desserts, soy, 129 g*	1	29.67	0.00	29.67	29.67
Dried apricot, 40 g	6	32.03	11.86	19.60	48.00
Cookies with chocolate and nuts, 40 g*	1	40.00	0.00	40.00	40.00
Dried fig, 40 g*	1	52.00	0.00	52.00	52.00
Dried fruit and nuts, 50 g*	1	55.00	0.00	55.00	55.00
Snacks, fried chickpea, 50 g*	1	130.00	0.00	130.00	130.00

Sugars and sweets

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Lactose powder, 1.4 g*	1	0.01	0.00	0.01	0.01
Xylitol, 1.4 g*	1	0.04	0.00	0.04	0.04
Fructose, 4 g*	2	0.12	0.00	0.12	0.12
Sugar, white, 4 g	22	0.12	0.13	0.01	0.40
Sugar, brown, 4 g	5	0.41	0.14	0.30	0.68
Fruit gums, 40 g*	2	0.80	0.00	0.80	0.80
Molasses, 20 g*	1	2.00	0.00	2.00	2.00
Syrup, not chocolate, 60 g	23	4.21	5.41	0.23	18.00
Honey, 20 g	67	4.33	6.44	0.15	40.60
White chocolate, 15 g	2	5.52	4.98	0.54	10.50
Corn/glucose syrup, 30 g*	1	9.00	0.00	9.00	9.00
Maple syrup, 30 g*	1	9.00	0.00	9.00	9.00
Marzipan, 30 g*	2	9.60	0.00	9.60	9.60
Candy, 40 g	32	8.04	12.48	0.40	51.95
Chocolate confections, 40 g	52	29.38	14.70	2.40	107.20
Chocolate confections with nuts, 40 g	16	36.61	23.94	0.80	82.16
Syrup, chocolate, 60 g	10	40.38	17.18	15.54	59.33
Confections with nuts, 50 g	5	53.27	44.55	1.50	130.93
Chocolate, 40 g	16	81.91	52.64	25.20	190.31

Sauces, dips, condiments and spreads

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Chutney, 15 g*	1	0.27	0.00	0.27	0.27
Hollandaise sauce, 30 g*	1	0.42	0.00	0.42	0.42
Relish, 15 g*	1	0.45	0.00	0.45	0.45
Fruit jelly, 15 g	5	0.50	0.23	0.08	0.78
Mayonnaise, 15 g	24	0.44	0.36	0.05	1.50
Mustard, 5 g	8	0.67	0.26	0.40	1.00
Dips, dairy-based, 30 g	14	1.04	0.69	0.30	3.02
Horseradish, 5 g	3	1.18	0.45	0.55	1.50
Fruit jams, 15 g	34	1.08	1.01	0.23	6.15
Oyster sauce, 15 g*	1	1.13	0.00	1.13	1.13
Sweet and sour sauce, 30 g	7	2.02	0.71	0.52	2.84
Marmelade, 15 g	5	1.89	1.10	0.90	4.05
Pesto, 60 g*	1	1.55	0.00	1.55	1.55
Bechamel sauce, 30 g*	1	2.05	0.00	2.05	2.05
Guacamole, 30 g*	1	2.10	0.00	2.10	2.10
Ketchup, 15 g	11	2.39	1.38	1.10	4.58
Teriyaki sauce, 15 g*	1	3.45	0.00	3.45	3.45
BBQ sauce, 15 g*	1	4.50	0.00	4.50	4.50
Soy mayonnaise, 15 g*	1	6.60	0.00	6.60	6.60
Salsa, 60 g	6	7.62	1.76	4.80	9.71
Soy sauce, 15 g	15	5.76	6.78	0.22	30.05
Gravy, 60 g	6	8.72	2.95	4.94	12.07
Chocolate hazelnut spread, 15 g	2	15.10	1.25	13.84	16.35

Hummus, 30 g	3	17.30	1.63	15.00	18.60
Barley malt, dried, 30 g*	1	15.90	0.00	15.90	15.90
Tartar sauce, 30 g	3	15.10	20.51	0.53	44.10
Pesto made with nuts, 60 g*	1	28.80	0.00	28.80	28.80
Dressings, 30 g	26	29.85	63.72	0.04	212.40

Miscellaneous

	Number of sources	Average nickel per serving (μg)	Standard deviation	Minimum value	Maximum value
Vanilla extract, 1 g	13	0.03	0.05	0.01	0.14
Yeast, 0.6 g	15	0.10	0.06	0.04	0.27
Baking powder, 0.6 g	16	0.78	0.50	0.08	1.94
Baking soda, 0.6 g	3	1.02	0.50	0.40	1.62
Agar, 0.6 g*	1	1.20	0.00	1.20	1.20
Vekao powder, 5 g*	1	6.90	0.00	6.90	6.90
Bouillon powder, 6 g	8	6.97	3.52	0.66	9.00
Tomato sauce, 60 g	18	6.72	5.78	2.46	24.90
Broth, 250 g	9	10.89	3.33	8.25	19.00
Tomato paste, 30 g	14	10.48	4.82	6.00	22.20
Coconut milk, canned, 83 g	2	10.42	10.33	0.09	20.75
Coconut, dried, 15 g	8	24.47	13.52	2.25	42.60
Cocoa powder, 5 g	6	43.04	11.11	27.00	63.00