|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1N KOH  added to Start pH mmoles HCl or mmoles Serving  Qty(g or reach pH 10 after 1N NaOH added to H+/100g to size (g or Points/  Food mL) Start pH (mL) KOH added reach pH 4 pH 4 Points/g ml) serving | | | | | | | | | |
| Lentils | 1 | 6.69 | 0.337 | 9.94 | 0.979 | 97.9 | 0.0721604 | 100 | 7.2160389 |
| Creamy Vanilla MilkShake (Sodexo) | 54.45 | 6.5 | 6.52 | 10.93 | 13.683 | 25.129477 | 0.0185225 | 354.89 | 6.5734502 |
| Tums | 1 | 9.72 | 0.011 | 9.92 | 16.097 | 1609.7 | 1.1864819 | 5.18 | 6.1459763 |
| Coffee (Sodexo) | 48.13 | 5.59 | 0.50 | 9.94 | 0.85 | 1.7639726 | 0.0013002 | 236.59 | 0.308 |
| Ensure Vanilla Shake (Sodexo) | 62.18 | 6.68 | 2.50 | 9.95 | 12.39 | 19.926021 | 0.0146871 | 354.89 | 5.212 |
| Chocolate Peanut Butter Shake (Sodexo) | 82.61 | 6.35 | 5.70 | 9.96 | 14.29 | 17.298148 | 0.0127502 | 354.89 | 4.525 |
| Creamy Chocolate Milkshake (Sodexo) | 84.11 | 6.45 | 4.00 | 9.95 | 13.44 | 15.981453 | 0.0117797 | 354.89 | 4.180 |
| Creamy Strawberry MilkShake (Sodexo) | 64.27 | 5.85 | 3.00 | 9.94 | 9.87 | 15.353975 | 0.0113171 | 354.89 | 4.016 |
| Builder's Protein Bar | 1.00 | 6.8 | 0.26 | 9.94 | 0.68 | 68.1 | 0.0501953 | 68.00 | 3.413 |
| Quinoa | 1.00 | 6.47 | 0.21 | 9.91 | 0.43 | 43.4 | 0.0319894 | 100.00 | 3.199 |
| VEGA One Shake (pH to 10) | 1.00 | 7.55 | 0.23 | 9.92 | 1.11 | 110.7 | 0.081595 | 38.00 | 3.101 |
| Blubonnet Protein (pH to 10) | 1.00 | 6.38 | 0.39 | 9.99 | 1.16 | 116.1 | 0.0855753 | 33.00 | 2.824 |
| Solgar Whey to Go (pH up to10) | 1.00 | 6.65 | 0.66 | 9.98 | 1.48 | 148.2 | 0.1092356 | 25.00 | 2.731 |
| Peach Shake (Sodexo) | 63.43 | 5.97 | 3.00 | 9.97 | 6.32 | 9.9700457 | 0.0073487 | 354.89 | 2.608 |
| Sigma Aldrich Sodium Citrate | 1.00 | 8.3 | 0.03 | 10.02 | 5.85 | 585.4 | 0.4314882 | 1.00 | 0.431 |
| Sigma Aldrich L-Lysine | 1.00 | 8.76 | 3.03 | 9.97 | 7.47 | 747.4 | 0.5508956 | 1.00 | 0.551 |
| Fisher Potassium Citrate | 1.00 | 8.06 | 0.03 | 10.00 | 5.88 | 588.3 | 0.4336257 | 1.00 | 0.434 |
| Sigma Aldrich L-Arginine | 1.00 | 10.6 | 0.00 | 10.60 | 5.85 | 585.2 | 0.4313408 | 30.00 | 12.940 |
| Basenpulver | 1.00 | 8.66 | 0.00 | 8.66 | 21.95 | 2194.6 | 1.6176015 | 8.00 | 12.941 |
| Kegenix Prime-Lemon Twist Ketone Supplement | 1.00 | 5.03 | 0.00 | 5.03 | 1.71 | 170.7 | 0.12582 | 40.80 | 5.133 |
| Pruvit KETO//OS-Orange Dream Ketone Supplement | 1.00 | 5.56 | 0.00 | 5.56 | 2.31 | 230.5 | 0.1698975 | 22.30 | 3.789 |
| Pruvit KETO//OS Max-Maui Punch Ketone Supplement | 1.00 | 5.27 | 0.00 | 5.27 | 1.78 | 177.5 | 0.1308322 | 18.40 | 2.407 |
| Potassium Beta-Hydroxybutryate Formulation | 1.00 | 7.7 | 0.00 | 7.70 | 4.65 | 464.5 | 0.3423749 | 2.00 | 0.685 |
| Sodium Beta-Hydroxybutyrate Formulation | 1.00 | 7.7 | 0.00 | 7.70 | 4.91 | 491.4 | 0.3622024 | 7.50 | 2.717 |
| Calcium Beta-Hydroxybutyrate Formulation | 1.00 | 7.56 | 0.00 | 7.56 | 5.12 | 511.9 | 0.3773126 | 5.00 | 1.887 |
| Magnesium Beta-Hydroxybutyrate Formulation | 1.00 | 8.54 | 0.00 | 8.54 | 4.27 | 427.2 | 0.3148817 | 5.00 | 1.574 |
| Solgar Whey to Go - Trial 2 | 1.00 | 6.67 | 0.72 | 9.96 | 1.38 | 137.9 | 0.1016437 | 25.00 | 2.541 |
| BioChem Whey Protein (pH to 10) | 1.00 | 6.51 | 0.36 | 10.00 | 1.20 | 119.5 | 0.0880814 | 25.00 | 2.202 |
| Raw Fit Protein - Trial 2 | 1.00 | 6.96 | 0.18 | 9.94 | 0.67 | 66.9 | 0.0493108 | 42.00 | 2.071 |
| Tuna | 42.00 | 5.92 | 0.00 | 5.92 | 6.00 | 14.285714 | 0.0105298 | 165.00 | 1.737 |
| Bacon | 1.00 | 5.76 | 0.57 | 9.96 | 0.84 | 84 | 0.0619149 | 28.00 | 1.734 |
| Warrior Blend Protein | 1.00 | 7.01 | 0.40 | 9.93 | 0.94 | 93.7 | 0.0690646 | 25.00 | 1.727 |
| Meyenberg Goat Milk | 1.00 | 6.87 | 0.22 | 9.96 | 0.82 | 81.9 | 0.0603671 | 28.00 | 1.690 |
| Orange Surprise Shake (Sodexo) | 104.70 | 4.55 | 5.00 | 10.00 | 6.31 | 6.0238777 | 0.0044401 | 354.89 | 1.576 |
| VEGA Protein Smoothie (pH to 10) | 1.00 | 7.48 | 0.22 | 10.00 | 0.94 | 93.6 | 0.0689909 | 21.80 | 1.504 |
| Raw Fit Protein (pH up to 10) | 1.00 | 6.77 | 0.17 | 9.95 | 0.47 | 47 | 0.0346429 | 42.00 | 1.455 |
| Low Fat Milk | 100.00 | 6.64 | 0.00 | 6.64 | 8.00 | 8 | 0.0058967 | 236.00 | 1.392 |
| Hamburger (fat) | 42.00 | 5.57 | 0.00 | 5.57 | 7.00 | 16.666667 | 0.0122847 | 113.00 | 1.388 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ensure + base | 100.00 | 9.98 | 0.00 | 9.98 | 7.25 | 7.25 | 0.0053438 | 255.00 | 1.363 |
| Orac-Energy Protein (pH to 10) | 1.00 | 7.06 | 0.37 | 9.95 | 1.10 | 109.9 | 0.0810054 | 15.00 | 1.215 |
| pHenomenal | 100.00 | 11.93 | 0.00 | 11.93 | 3.25 | 3.25 | 0.0023955 | 500.00 | 1.198 |
| White chicken breast | 42.00 | 6.05 | 0.00 | 6.05 | 5.00 | 11.904762 | 0.0087748 | 125.00 | 1.097 |
| Slush/Slurpee Shake | 99.25 | 2.97 | 4.70 | 9.92 | 4.04 | 4.0735516 | 0.0030025 | 354.89 | 1.066 |
| Whole Milk | 100.00 | 6.63 | 0.00 | 6.63 | 5.50 | 5.5 | 0.004054 | 236.00 | 0.957 |
| Bicarbonate | 1.00 | 8.22 | 0.00 | 8.22 | 13.57 | 1356.7 | 1 | 1.00 | 1.000 |
| Carnosine (pH 10) | 0.075 | 10.01 | 0.00 | 10.01 | 0.75 | 1000 | 0.7370826 | 1.00 | 0.737 |
| Peach Yogurt | 100.00 | 4.5 | 0.00 | 4.50 | 3.90 | 3.9 | 0.0028746 | 245.00 | 0.704 |
| Swiss Chesse | 100.00 | 5.83 | 0.00 | 5.83 | 33.30 | 33.3 | 0.0245449 | 28.30 | 0.695 |
| Hamburger (lean) | 42.00 | 5.38 | 0.00 | 5.38 | 3.00 | 7.1428571 | 0.0052649 | 113.00 | 0.595 |
| Greek Plain Yogurt | 100.00 | 4.00 | 0.00 | 4.00 | 3.17 | 3.17 | 0.0023366 | 245.00 | 0.572 |
| L-Lysine (free base) | 1.00 | 9.52 | 0.00 | 9.52 | 7.00 | 700 | 0.5159578 | 1.00 | 0.516 |
| Potassium Ascorbate (pH up to 10) | 1.00 | 4.74 | 3.40 | 9.99 | 6.75 | 675.4 | 0.4978256 | 1.00 | 0.498 |
| Dr. Gillies Whey Protein | 10.00 | 5.99 | 0.00 | 5.99 | 6.00 | 60 | 0.044225 | 10.00 | 0.442 |
| Egg (whole, fresh) | 55.00 | 7.31 | 0.00 | 7.31 | 6.00 | 10.909091 | 0.0080409 | 55.00 | 0.442 |
| Ensure | 100.00 | 6.59 | 0.00 | 6.59 | 2.30 | 2.3 | 0.0016953 | 255.00 | 0.432 |
| Sodium Citrate | 1.00 | 8.35 | 0.03 | 9.96 | 5.68 | 567.5 | 0.4182944 | 1.00 | 0.418 |
| Cantaloupe | 100.00 | 6.71 | 0.00 | 6.71 | 3.00 | 3 | 0.0022112 | 160.00 | 0.354 |
| Carnosine (pH 7.4) | 0.075 | 7.42 | 0.00 | 7.42 | 0.35 | 466.66667 | 0.3439719 | 1 | 0.344 |
| Watermelon | 100.00 | 5.41 | 0.00 | 5.41 | 3.00 | 3 | 0.0022112 | 152.00 | 0.336 |
| Brocolis | 50.00 | 6.97 | 0.00 | 6.97 | 3.00 | 6 | 0.0044225 | 45.50 | 0.201 |
| Beets | 50.00 | 6.22 | 0.00 | 6.22 | 2.00 | 4 | 0.0029483 | 68.00 | 0.200 |
| Banana | 100.00 | 4.78 | 0.00 | 4.78 | 3.33 | 3.33 | 0.0024545 | 80.00 | 0.196 |
| Brussel Sprout | 50.00 | 6.70 | 0.00 | 6.70 | 3.00 | 6 | 0.0044225 | 44.00 | 0.195 |
| Carrots | 50.00 | 6.33 | 0.00 | 6.33 | 2.00 | 4 | 0.0029483 | 64.00 | 0.189 |
| Asparagus | 50.00 | 6.79 | 0.00 | 6.79 | 2.00 | 4 | 0.0029483 | 60.00 | 0.177 |
| Eggplant | 50.00 | 5.60 | 0.00 | 5.60 | 1.00 | 2 | 0.0014742 | 120.00 | 0.177 |
| French Bread | 55.00 | 5.55 | 0.00 | 5.55 | 2.00 | 3.6363636 | 0.0026803 | 64.00 | 0.172 |
| Green Beans (snap) | 50.00 | 6.88 | 0.00 | 6.88 | 2.00 | 4 | 0.0029483 | 50.00 | 0.147 |
| Sodium Hexametaphosphate | 1.00 | 6.78 | 0.96 | 10.31 | 1.93 | 192.9 | 0.1421832 | 1.00 | 0.142 |
| Beer (Heineken) | 207.00 | 4.48 | 0.00 | 4.48 | 1.00 | 0.4830918 | 0.0003561 | 354.00 | 0.126 |
| Tomato | 50.00 | 4.42 | 0.00 | 4.42 | 1.00 | 2 | 0.0014742 |  | 0.000 |
| Spirulina GNC | 1.00 | 8.10 | 0.00 | 8.10 | 1.00 | 100 | 0.0737083 | 1.00 | 0.074 |
| L-Lysine free base GNC | 1.00 | 6.96 | 0.00 | 6.96 | 1.00 | 100 | 0.0737083 | 1.00 | 0.074 |
| Sodium Hexametaphosphate | 1.00 | 6.56 | 0.00 | 6.56 | 0.88 | 88.3 | 0.0650844 | 1.00 | 0.065 |
| Red Leaf Lettuce | 50.00 | 6.23 | 0.00 | 6.23 | 2.00 | 4 | 0.0029483 | 17.00 | 0.050 |
| Orange Juice | 100.00 | 4.11 | 0.00 | 4.11 | 0.20 | 0.2 | 0.0001474 | 243.00 | 0.036 |
| Sour Cream | 50.78 | 4.40 | 0.00 | 4.40 | 1.00 | 1.9692792 | 0.0014515 | 15.00 | 0.022 |
| Nectarine (peach) | 100.00 | 4.03 | 0.00 | 4.03 | 0.10 | 0.1 | 7.371E-05 | 142.00 | 0.010 |
| Black Grape | 100.00 | 3.97 | 0.00 | 3.97 | -1.00 | -1 | -0.000737 | 28.30 | -0.021 |
| Orange | 100.00 | 3.96 | 0.00 | 3.96 | -1.00 | -1 | -0.000737 | 141.00 | -0.104 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Red wine | 100.00 | 3.62 | 0.00 | 3.62 | -1.00 | -1 | -0.000737 | 147.00 | -0.108 |
| Coca-cola no sugar (free caffeine) | 250.00 | 3.60 | 0.00 | 3.60 | -1.00 | -0.4 | -0.000295 | 368.00 | -0.108 |
| Pepsi (Diet) | 150.00 | 3.23 | 0.00 | 3.23 | -0.60 | -0.4 | -0.000295 | 368.00 | -0.108 |
| Regular Coke | 222.00 | 2.98 | 0.00 | 2.98 | -1.00 | -0.45045 | -0.000332 | 368.00 | -0.122 |
| Red Apple | 100.00 | 3.85 | 0.00 | 3.85 | -1.00 | -1 | -0.000737 | 223.00 | -0.164 |
| Apple Juice | 100.00 | 3.75 | 0.00 | 3.75 | -1.00 | -1 | -0.000737 | 243.00 | -0.179 |
| Coca-cola w/ sugar (free caffeine) | 250.00 | 2.82 | 0.00 | 2.82 | -2.00 | -0.8 | -0.00059 | 368.00 | -0.217 |
| Hawaiian Punch | 355.00 | 3.11 | 0.00 | 3.11 | -4.00 | -1.126761 | -0.000831 | 355.00 | -0.295 |
| White wine | 100.00 | 3.42 | 0.00 | 3.42 | -3.00 | -3 | -0.002211 | 147.00 | -0.325 |
| Arizona Fruit Punch | 250.00 | 3.47 | 0.00 | 3.47 | -2.00 | -0.8 | -0.00059 | 680.00 | -0.401 |

**Supplementary table:** Foodstuffs.