**Table S1.** Sodium reduction assumptions by using umami substances for the FNDDS1 subgroups

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Main group | Subgroup | FNDDS food code | Sodium reduction rate (%) | References | Umami substance |
| Milk | Cheese | 14XXXXXX4 | 54–100% | Rodriques (2014)(1), da Silva (2014)(2) | MSG2 |
|  | Savoury yoghurt dip | 114XXXXX | 46% | Halim (2020)(3) | MSG |
|  | Requeijão cheese  | 143XXXXX | 25-100% | Reis Rocha RA (2021)(4) | MAG, MSG, GMP, IMP |
| Meat | Sausage | 252XXXXX | 17–75% | Wooward (2003)(5), Ichikawa Chemical Institution (1984)(6), dos Santos (2014)(7), Campangol (2017)(8) | MSG, CDG3, Inosinate, Trans-glutaminase, and guanylate |
|  | Chicken broth | 283XXXXX, 285XXXXX | 11–38% | Chi (1992)(9), Carter (2011)(10), Wang (2019)(11) | MSG, CDG |
|  | Pork cauliflower fried rice | 2732XXXX | 61% | Halim (2020)(3) | MSG |
|  | Beef burger | 2731XXXX | 25-100% | Reis Rocha RA (2021)(4) | MAG, MSG, GMP, IMP |
|  | Dry-cured rabbit legs | 200XXXXX | 46% | Pedro D (2021)(12) | MSG |
|  | Chicken rice | 2724XXXX | 40% | Leong (2016)(13) | MSG |
|  | mee soto brothSpicy soups (curry chicken and chilli chicken) | 2834XXXX | 33-40% | Jinap (2016)(14)Leong (2016)(13) | MSG |
| Fish | Salted fish | 26109170, 26109180 | 30–40% | Ichikawa Chemical Institution (1984) (6) | MSG, Inosinate |
|  | Fish burger | 2735XXXX | 50% | de Quadros (2015)(15) | MSG |
| Legume | Miso  | 41420110 | 15–35% | Ishida (2011)(16), Yamasa Corporation (2014)(17) | MSG, Inosinate, Guanilate |
|  | Soy sause | 41420300 | 40–61% | Kameda Seika Co., Ltd. (1997)(18) | MSG, Inosinate, Guanilate |
| Grain | Snack | 540XXXXX, 543XXXXX, 544XXXXX | 51% | Buechler (2019)(19) | MSG, Inosinate, Guanilate |
| Vegetable | Vegetable soup | 718XXXXX, 723XXXXX, 735XXXXX, 746XXXXX, 756XXXXX, 775XXXXX | 17–40% | Kremer (2009)(20), Ball (2002)(21), Hartley (2020)(22) | Glutamates, CDG |
|  | Potate chips | 712XXXXX | 30% | Kongstad (2020)(23) | MSG |
|  | Salted vegetable | 755XXXXX | 55% | Tampei Pharmaceutical Co., Ltd. (1985)(24) | MSG |
|  | Roasted vegetable | 752XXXXX, 753XXXXX, 754XXXXX | 31% | Halim (2020)(3) | MSG |
|  | Quinoa bowl | 77XXXXXX | 31% | Halim (2020)(3) | MSG |
|  | Shoestring potatoes | 714XXXXX | 25-75% | Reis Rocha RA (2021)(4) | MAG, MSG, GMP, IMP |
|  | Garlic and salt spice | 755XXXXX | 25-50% | Rodrigues (2014)(25) | MSG |
|  | Tomato sauce | 744XXXXX | 50% | Rogerio (2020)(26) | MSG, Inosinate, Guanilate |
|  | A traditional Japanese clear soup (sumashi-jiru) | 41601070 | 40% | Yamaguchi and Takahashi (1984)(27) | MSG |
| Oil | Butter | 81101XXX | 100% | de Souza (2014)(28) | MSG |
|  | Margarine | 81102XXX | 47% | Gonçalves (2017)(29) | MSG |

Notes: 1 FNDDS: Food and Nutrient Database for Dietary Studies; 2 MSG: monosodium glutamate; 3 CDG: calcium diglutamate; 4 X refers to all food codes for which the first one or two digits correspond.

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