

REFERENCES

- Al-Khusaibi, M., Gordon, M. H., Lovegrove, J. A., & Niranjan, K. (2012). Frying of potato chips in a blend of canola oil and palm olein: changes in levels of individual fatty acids and tocots. *International Journal of Food Science & Technology*, 47(8). doi: 10.1111/j.1365-2621.2012.03024.x
- American Health Organization. (2016). Nutrient profile model. Washington, American.
- Andrews, J. C., Netemeyer, R. G., & Burton, S. (1998). Consumer generalization of nutrient content claims in advertising. *J. Mark*, 62, 62–75. doi: 10.2307/1252287
- Aranceta, J. & Perez-Rodrigo, C. (2012). Recommended dietary reference intakes, nutritional goals and dietary guidelines for fat and fatty acids: a systematic review. *British Journal of Nutrition*, 107(S2), 8-22. doi: <https://doi.org/10.1017/S0007114512001444>
- Astrup, A., Bovy, M. W., Nackenhorst, K., & Popova, A. E. (2006) Food for thought or thought for food? A stakeholder dialogue around the role of the snacking industry in addressing the obesity epidemic. *Obes Rev*, 7, 303–312.
- Atmarita, A., Jahari, A. B., Sudikno, S., & Soekatri, M. (2016). Asupan gula, garam, dan lemak di Indonesia: Analisis Survei Konsumsi Makanan Individu (SKMI) 2014. *Journal of the Indonesian Nutrition Association*, 39(1), 1-14. doi: 10.36457/gizindo.v39i1.201
- Badan Pengawasan Obat dan Makanan. (2016). Pengawasan Klaim pada Label dan Iklan Olahan Pangan. Regulation number 13. Indonesia.
- Badan Pengawasan Obat dan Makanan. (2018). Label Pangan Olahan. Regulation number 31. Indonesia.
- Badan Pengawasan Obat dan Makanan. (2019). Kategori Pangan. Regulation number 34. Indonesia.
- Badan Pengawasan Obat dan Makanan. (2019). Informasi Nilai Gizi Pada Label Olahan Pangan. Regulation number 22. Indonesia.
- Beyer, R. (1994). The role of ascorbate in antioxidant protection of biomembranes: Interaction with vitamin E and coenzyme Q. *Journal of Bioenergetics and Biomembranes*, 26(4), 349-358. doi: 10.1007/bf00762775
- Blekas, G. (2016). Food Additives: Classification, Uses and Regulation. *Encyclopedia Of Food and Health*, 731-736. doi: 10.1016/b978-0-12-384947-2.00304-4
- Blum, L. S., Mellisa, A., Sari E. K., Yusadiredja, I. N., Liere, M. V., Shulam, S., Izwardy, D., Menon, R. & Tumilowicz, A. (2019). In-depth assessment of snacking behaviour in unmarried

- adolescent girls 16–19 years of age living in urban centres of Java, Indonesia. *Maternal & Child Nutrition*, 15(4). doi: <https://doi.org/10.1111/mcn.12833>
- Clark, J. P. (2003). Happy birthday, potato chip! And other snack developments. *Food Technology*, 57(5), 89–92.
- Collins, A. E., Pakiz, B., & Rock, C. L. (2008). Factors associated with obesity in Indonesian adolescents. *International Journal of Pediatric Obesity*, 3(1), 58– 64. doi: <https://doi.org/10.1080/17477160701520132>.
- Collins, A. M. & Loftus, E. F. (1975). A spreading-activation theory of semantic processing. *Psychol Rev*, 82, 407. doi: 10.1037/0033-295X.82.6.407.
- Corbo, M. R. Speranza, B., Campaniello, D., Amato, D. D., & Sinigaglia, M. (2010). Fresh-cut fruits preservation: current status and emerging technologies. Italy: Formatec research Centre.
- Christoph, M. J., Larson, N., Laska, M. N., & Neumark-Sztainer, D. (2018). Nutrition Facts Panels: Who Uses Them, What Do They Use, and How Does Use Relate to Dietary Intake? *Research original research*, 118(2), 217-228. doi: <https://doi.org/10.1016/j.jand.2017.10.014>
- Debeuf, T., Verbeken, S., Van Beveren, M. L., Michels, N., and Braet, C. (2018). Stress and Eating Behavior: A Daily Diary Study in Youngsters. *Frontiers in Psychology*, 9:2657. doi: 10.3389/fpsyg.2018.02657
- Department of Health and Human Services. (2014). Healthy choices: food and drink classification guide. Retrieved from www2.health.vic.gov.au/public-health/preventive-health/nutrition/healthy-choices-for-retail-outlets-vending-machines-catering.
- Drewnowski, A., Dwyer, J., King, J. C., & Weaver, C. M. (2019). A proposed nutrient density score that includes food groups and nutrients to better align with dietary guidance. *Nutr Rev*, 77 (6), 404-416. doi: 10.1093/nutrit/nuz002.
- Drichoutis, A. C., Lazaridis, P., & Nayga, R. (2006). Consumers' use of nutritional labels: A review of research studies and issues. *Academy of Marketing Sciene Review*, 10(9), 1-22.
- Egnell et al. (2019). Modelling the impact of different front-of-package nutrition labels on mortality from non-communicable chronic disease. *International Journal of behavioural Nutrition and physical activity*, 16:56. doi: <https://doi.org/10.1186/s12966-019-0817-2>
- El-Abbadi, N. H., Taylor, S. F., Micha, R., & Blumberg, J. B. (2020). Nutrient Profiling Systems, Front of Pack Labelling, and Consumer Behaviour. *Current Atherosclerosis Reports*, 22(8). doi: 10.1007/s11883-020-00857-5.
- European Commission. (2011). Regulation (EU) NO 1169/2011 of the European Parliament and of the Council on the provision of food information to consumers.
- European Indonesia Business Network. (2017). Food and Beverage Report. Germany.

European Food Information Council (2018). Global Update on Nutrition Labelling - The 2018 edition.

FAS Jakarta Staff. (2020). Food and Agriculture Import Regulations and Standard Country Report – Indonesia. United States Department of Agriculture.

Fernan, C., Schuldt, J. P., & Niederdeppe, J. (2018). Health Halo Effects from Product Titles and Nutrient Content Claims in the Context of “Protein” Bars. *Health Commun*, 33(12), 1425-1433. doi: 10.1080/10410236.2017.1358240.

Food and Agriculture Organization of the United Nation. (2010). Woodhead Publishing.

Food and Agriculture Organization of the United Nations, Organization PAH (2019). Approval of a new food act in Chile: process summary. Santiago.

Food and Drug Administration. (1988). Potato Chips Ingredient Labelling. Centre of Food Safety and Applied Nutrition Office of Regulatory Affairs.

Food Drug and Administration. (2016). Changes to the Nutrition Facts Label. Food Labelling and Nutrition. Retrieve from <https://www.fda.gov/food/food-labeling-nutrition/changes-nutrition-facts-label>

Food Standard Agency. (2018). Acrylamide. United Kingdom. Retrieved from <https://www.food.gov.uk/safety-hygiene/acrylamide>

Food Standard Agency. (2020). Packaging and Labelling. United Kingdom. Retrieved from <https://www.food.gov.uk/business-guidance/packaging-and-labelling>.

Foltran et al. (2010). Nutritional profiles in a public health perspective: a critical review. *J Int Med Res*, 38(2), 318-385. doi: 10.1177/147323001003800202.

Garayo, J. & Moreira, R. (2002). Vacuum frying of potato chips. *Journal of Food Engineering*, 55, 181–191.

Gesser-Edelsburg, A., Endevelt, R. & Tirosh-Kami-enchick, Y. (2014). Nutrition labeling and the choices logo in Israel: positions and perceptions of leading health policy makers. *J Hum Nutr Diet*, 27, 58–68.

Goyal, B., & Goyal, P. (2018). Manufacturing of Potato Chips and its Quality Improvement. *Journal of Food Processing & Technology*, 9(12). doi: 10.4172/2157-7110.1000765

Grunert, K.G., & Wills, J.M. (2007) A review of European research on consumer response to nutrition information on food labels. *J Public Health* 15, 385–399. doi: <https://doi.org/10.1007/s10389-007-0101-9>

Gupta, L., Khandelwal, D., Dutta, D., Kalra, S., Lal, P. R., & Gupta, Y. (2018). The Twin White Herrings: Salt and Sugar. *Indian J Endocrinol Metab*, 22(4): 542-551. doi: 10.4103/ijem.IJEM_117_18

- Halagarda, M., & Suwala, G. (2016). The Quality of Salted Potato Chips Available on the Polish Market. *Zeszyt Nauk*, 8(956), 71-86.
- Hallam, J., Boswell, R. G., DeVito, E. E., & Kober, H. (2016). Gender-related Differences in Food Craving and Obesity. *Yale Journal of Biology and Medicine*, 89:161-173.
- Harbuwono, D. S., Pramono, L. A., Yunir, E., & Subekti, I. (2018). Obesity and central obesity in Indonesia: evidence from a national health survey. *Medical Journal of Indonesia*, 27(2), 114–20. doi: 10.13181/mji.v27i2.1512
- Health Promotion Board. (2018). Healthier Choice Symbol Nutrient Guidelines. Singapore.
- Hess, J. M., Jonnalagadda, S. S., & Slavin J. L. (2016). What is a snack, why do we snack, and how can we choose better snacks? A review of the definitions of snacking, motivations to snack, contributions to dietary intake, and recommendations for improvement. *Adv Nutr*, 7 (3), 466-475. doi: 10.3945/an.115.009571
- Jekanowski, M. D., Binkley J. K., & Eales, J. S. (2001). Convenience, Accessibility, and the Demand for Fast Food. *Journal of Agricultural and Resources Economics*, 26(1), 58-74. doi: 10.22004/ag.econ.31162
- Jones, A., Neal, B., Reeve, B., Mhurchu, C.N., & Thow, A.M. (2019). Front-of-pack nutrition labelling to promote healthier diets: current practice and opportunities to strengthen regulation worldwide. *BMJ Global Health*, 4(6). doi: <http://dx.doi.org/10.1136/bmjgh-2019-001882>
- Kanadiah, J., Yake, M., Jones, J., & Meyer, M. (2006) Stress influences appetite and comfort food preferences in college women. *Nutrition Research*, 26(3), 118-123. doi: <https://doi.org/10.1016/j.nutres.2005.11.010>
- Kaur, A., Singh, N., & Ezekiel, R. (2008). Quality Parameters of Potato Chips from Different Potato Cultivars: Effect of Prior Storage and Frying Temperatures. *International Journal of Food Properties*, 11(4), 791-803. doi: 10.1080/10942910701622664.
- Kearney, J. (2010). Food consumption trends and drivers. *Philosophical Transactions of The Royal Society B: Biological Sciences*, 365(1554), 2793-2807. doi: 10.1098/rstb.2010.0149
- Kurnianto, A., Sunjaya, D. K. Rinawan, F. R., & Hilmanto, D. (2020). Prevalence of Hypertension and Its Associated Factors among Indonesian Adolescents. *International Journal of Hypertension*, 2020, 1-7. doi: <https://doi.org/10.1155/2020/4262034>
- Lähteenmäki, L. (2013). Claiming health in food products. *Food Qual Prefer*, 27, 196–201. doi: 10.1016/j.foodqual.2012.03.006.
- Larson, N. & Story, M. A. (2013). Review of snacking patterns among children and adolescents: what are the implications of snacking for weight status? *Child Obes*, 9, 104–115.

- Lineback, D. R., Coughlin, J., & Stadler, R. H. (2011). Acrylamide in Foods: A review of the Science and Future Considerations. *Annual Review of Food Science and Technology*, 3(1), 15-35. doi: 10.1146/annurev-food-022811-101114
- Marra, C. A., Harvard, S., Grubisic, M., Galo, J., Clarke, A., Elliot, S., & Lynd, L. D. (2017). Consumer preferences for food allergen labelling. *Allergy asthma Clinical Immunol*, 13(19). doi: 10.1186/s13223-017-0189-6
- Menteri Kesehatan Indonesia. (2014). Pedoman Gizi Seimbang. Peraturan Menteri Kesehatan Republik Indonesia, 41, 36. (Indonesia).
- Mokdad, A. H., Ford, E. S., Bowman, B. A., Dietz, W. H., Vinicor F, Bales VS, et al. (2003). Prevalence of obesity, diabetes, and obesity-related health risk factors. *The journal of the American Medical Association*, 289(1):76–9. doi:10.1001/jama.289.1.76
- National Food Committee. (2017). Healthier Choice nutritional logo. Thailand.
- Nettleton, J. A., Brouwer, I. A., Geleijnse, J. M., & Hornstra, G. (2017) Saturated Fat Consumption and Risk of Coronary Heart Disease and Ischemic Stroke: A Science Update. *Ann Nutr Metab*, 70(1), 26-33. doi: 10.1159/000455681
- North Eastern Development Finance Corporation Ltd (2017) Project Report on Potato and Banana Chips.
- Ouhtit, A., Al-Sharbati, M., Gupta, I., Al-Farsi, Y. (2014). Potato chips and childhood: What does the science say? An unrecognized threat? *Nutrition*, 30(10), 1110-1112. doi: 10.1016/j.nut.2014.01.008
- Okafor, S., Obonga, W., & Ezeokonkwo, M. A. (2016). Assessment of the Health implications of Synthetic and Natural Food Colorants – A critical review. *Pharmaceutical and Biosciences Journal*, 4 (4), 1. doi: 10.20510/ukjpb/4/i4/110639
- Pedreschi, F., Mery, D., & Marique, T. (2008). Quality Evaluation and Control of Potato Chips and French Fries. *Food science and technology*, 545-566. doi: <https://doi.org/10.1016/B978-012373642-0.50025-9>
- Pedreschi, F. & Moyano, P. (2005). Effect of pre-drying on texture and oil uptake of potato chips. *Food Science and Technology*, 38(6), 599-604. doi: 10.1016/j.lwt.2004.08.008
- Ponzo et al. (2015). Blood pressure and sodium intake from snacks in adolescents. *European Journal of Clinical Nutrition*, 69, 681-686. doi: 10.1038/ejcn.2015.9
- Purnamasari, D. (2018). The Emergence of Non-communicable Disease in Indonesia. *Acta Med Indones*, 50(4), 273-274. PMID: 30630990.
- Rayner, M., Scarborough, P., & Williams, C. (2003). The origin of guideline daily amount and the Food Standards Agency's guidance on what counts as 'A Lot' and 'A Little'. *Public Health Nutr*, 7, 549 – 556.

- Rippe, J. M. & Angelopoulos, T. J. (2016). Relationship between Added Sugars Consumption and Chronic Disease Risk Factors: Current Understanding. *Nutrients*, 8(11), 697. doi: 10.3390/nu8110697
- Roodenburg, A. J. C. et al. (2011). Potential Effects of Nutrient Profiles on Nutrient Intakes in the Nether- lands, Greece, Spain, USA, Israel, China, and South-Africa. *PLOS ONE* 6, e14721.
- Saldivar, S. O. (2015). Snack foods: Types and Composition. *Encyclopedia of Food and Health*, 13-18. doi: <https://doi.org/10.1016/B978-0-12-384947-2.00633-4>.
- Santos, B. A. D., Campagnol, P. C. B., Morgano, M. A., & Pollonio, M. A. R. Monosodium glutamate, disodium inosinate, disodium guanylate, lysine, and taurine improve the sensory quality of fermented cooked sausages with 50% and 75% replacement of NaCl with KCl. *Meat Science*, 96(1), 509-513. doi: 10.1016/j.meatsci.2013.08.024
- Szucz, R. S. & Csapo, Z. (2010). Reducing consumption of food with high level of fat, sugar and/or salt among young generation. *Applied Studies in Agrobusiness and Commerce*, 4(1-2), 85-91. doi: 10.19041/Abstract/2010/1-2/12
- Tan, W. L., Azlan, A., & Noh M. F. M. (2016). Sodium and potassium contents in selected salts and sauces. *International Food Research Journal*, 23(5), 2181-2186.
- Thiele, S., Mensink, G. B. M., & Beitz, R. (2007). Determinants of diet quality. *Public Health Nutrition*, 7(1), 29-37. doi: <https://doi.org/10.1079/PHN2003516>
- Trehan, S. P., Pandev, S. K. & Bansal, S. K. (2009). Potassium Nutrition of Potato Crop – Indian Scenario. Retrieved from <http://www.ipipotash.org/en/eifc/2009/19/2>
- Tremellen, K. (2019). Chapter 3.5 - Treatment of Sperm Oxidative Stress: A Collaborative Approach Between Clinician and Embryologist. *Academic Press*, 225-235. doi: <https://doi.org/10.1016/B978-0-12-812501-4.00021-3>
- UK Food Standards Agency. (2005). Scientific Workshop to Assess the Food Standards Agency's Proposed Approach to Nutrient Profiling. London. Retrieved from: <http://www.food.gov.uk/multimedia/pdfs/nutprofworkshop250205.pdf>.
- U.S. Department of Agriculture. (2019) Food Data Central. Agriculture Research Service. United Stated of America
- Vos et al. (2020). Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *Global Health Metrics*, 396(10258), 1204-1222. doi: [https://doi.org/10.1016/S0140-6736\(20\)30925-9](https://doi.org/10.1016/S0140-6736(20)30925-9)
- Varvara, M., Bozzo, G., Disanto, C., Pagliarone, C., & Celano, G. (2016). The use of the ascorbic acid as food additive and technical-legal issues. *Italian Journal of Food Safety*, 5(1). doi: 10.4081/ijfs.2016.4313

Yang, Y., Chen, Q., Shen, C., Zhang, S., Gan, Z., & Hu, R. et al. (2013). Evaluation of monosodium glutamate, disodium inosinate and guanylate umami taste by an electronic tongue. *Journal Of Food Engineering*, 116(3), 627-632. doi: 10.1016/j.jfoodeng.2012.12.042

West, M., Liem, D. G., Booth, A., Nowson, C., & Grimes, C. (2019). Salt Preference and Ability to Discriminate between Salt Content of Two Commercially Available Products of Australian Primary School children. *Nutrients*, 11(2), 388. doi: <https://doi.org/10.3390/nu11020388>

World Health Organization. (2010). Nutrient Profiling. Retrieved from <https://www.who.int/nutrition/topics/profiling/en/>

World Health Organization. (2015). Guidelines: sugar intake for adults and children. Retrieved from <https://www.who.int/publications/i/item/9789241549028>

World Health Organization. (2015). Nutrient profile model. Copenhagen, Denmark.

World Health Organization. (2018). Noncommunicable Diseases. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>

World Health Organization. (2020). Salt Reduction. Retrieve from <https://www.who.int/news-room/fact-sheets/detail/salt-reduction>

APPENDIX

Table 4.10. The details of brands, flavors, and weight of the samples that were included

Brand	Flavour	Netto
Chitato	Beef BBQ (Sapi Panggang)	15 gr
		35 gr
		68 gr
		120 gr
		168 gr
	Chicken BBQ (Ayam Barbekiu)	35 gr
		68 gr
	Spicy Grilled Beef (Sapi Bumbu Bakar)	35 gr
		68 gr
	Spicy Chicken (Ayam Bumbu)	35 gr
		68 gr
Lays	Original (Asli)	68 gr
	Cheese (Keju)	68 gr
	*Spicy Mexican Chilli (Bumbu pedas ala Mexico)	55 gr
	Nori Seaweed (Rumput Laut)	68 gr
	Beef BBQ (Sapi Panggang)	68 gr
	Salmon Teriyaki (Salmon Teriyaki)	68 gr
	Classic Salty (Asin Klasik)	68 gr
	*Sour Cream & Onion (Saus Krim & Bawang)	55 gr
	*Honey Butter	55 gr
	*Keju Raclette	55 gr
Potabee	Beef BBQ	35 gr
		68 gr
	Grilled Seaweed	35 gr
		68 gr
	Grilled Chicken	35 gr
		68 gr
	Wagyu Beef Steak	68 gr
Japota	*Salted Egg	68 gr
	*Melted Cheese	57 gr
	Japanese Seaweed (Rumput Laut)	35 gr
		68 gr
	Honey Butter (Madu Mentega)	35 gr
		68 gr
	Chicken Onion (Ayam Bawang)	35 gr
		68 gr

*Potato chip special edition flavors.

Table 4.11. The detail seasoning ingredients that were listed in packaging

Seasoning	Amount
Salt	8
Beef Barbecue Seasoning & Salt	5
Seaweed Seasoning & Salt	3
Spices (Onion Powder & Shallot)	2
Synthetic Spicy Chicken & Salt	2
Synthetic Chicken Barbecue, Salt, & Spices	2
Salt & Spices	2
Synthetic Spicy Grilled Beef & Salt	2
Spices	2
Cheese flavoured cream & Salt	1
Synthetic Salted Egg & Salt	1
Synthetic Salmon Teriyaki & Salt	1
Salt (0.82%)	1
Artificial Honey Butter	1
Synthetic Cheese & Salt	1
Salt (1.28%)	1
Sour Cream & Onion (7%) & Salt	1
Grand Total	36

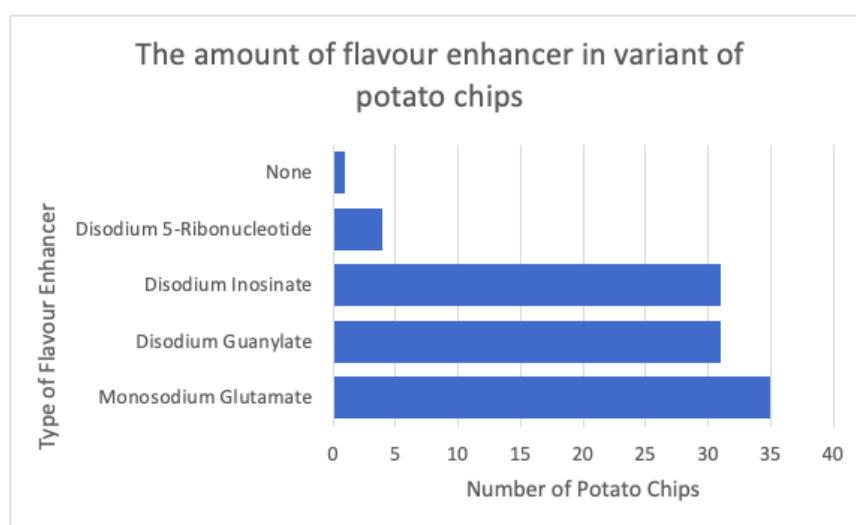


Figure 4.3. The amount of each type of flavor enhancer that were listed in the packaging

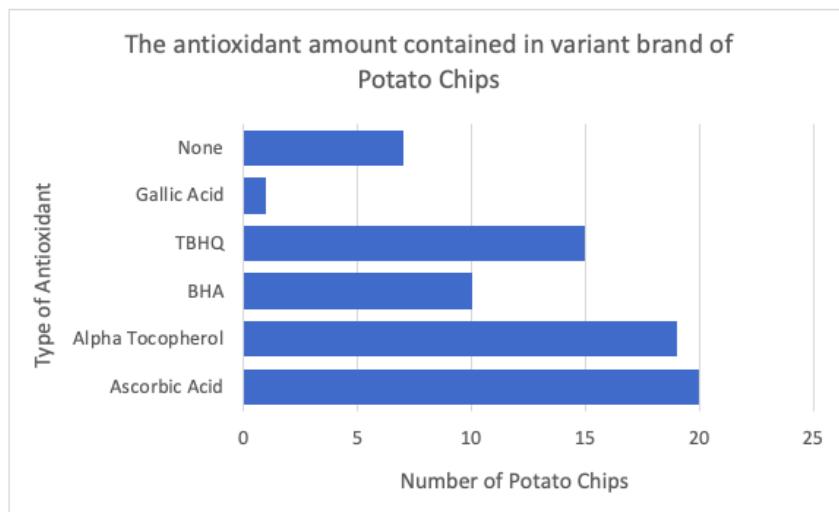


Figure 4.4. The amount of each type of antioxidant that were listed in the packaging

Table 4.12. The amount of each type of coloring agent that were listed in the packaging

Colouring Agent	Total Amount
None	29
Yellow FCF CI 15985	2
Carmine CI 75470 & Caramel I	2
Curcumin CI 75300	1
Annatto CI 75120	1
Caramel I	1
Grand Total	36

Table 4.13. The amount of each type of sweetener that were listed in the packaging

Type of Sweetener	Amount (n)	Percentage (%)
Sugar	24	66.7
Sucrose	3	8.3
Steviol Glycosides	7	19.4
None	2	5.6
Total	36	100