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Abstract (600 word limits)

Food additives are intentionally added substances with a technological or organoleptic purpose during the technological process of a food product. Monosodium glutamate is used to enhance the taste and smell of food (umami flavour). With this study we intended to produce a critical analyse to the additive properties, role in food options and toxicological effects in human health.

The research was based on scientific articles in online platforms like Google Scholar and PubMed, since 2007, using the keywords monosodium glutamate, food additive and toxicity.

MSG is the sodium salt of a non-essential amino acid found in nature. After ingestion, it is absorbed by the gastrointestinal tract cells. Most of the glutamate present in food is metabolized by the first-pass effect and is used as energy. What isn't metabolized enters the hepatic portal circulation and is metabolized in the liver, generating energy or being converted into urea for excretion in urine. When in contact with disodium salts or guanylate, the product has an effect 6 times higher than expected. Monosodium glutamate is applied to specific food products like soups, seasonings, snacks, meat and milk products.

Although it's a food additive that may present negative effects in human health when consumed in high doses, it becomes safe when the established recommendations comply. MSG is not recommended for pregnant women and children under one year old.

In conclusion, since there are so many contradictions, it should exist legislation where the limit value for monosodium glutamate would be established.

Biography (200 word limit)

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References (With Hyperlink)

HD Nguyen, MS. Kim Effects of heavy metal, vitamin, and curry consumption on metabolic syndrome during menopause: a Korean community-based cross-sectional study Menopause, 28 (2021), p. 1, 10.1097/GME.0000000000001825

M Iriti, EM Varoni, S. Vitalini Healthy diets and modifiable risk factors for non-communicable diseases-the European perspective Foods, 9 (2020), 10.3390/foods9070940

M Abdulrazaq, JK Innes, PC. Calder Effect of ω-3 polyunsaturated fatty acids on arthritic pain: a systematic review Nutrition, 39-40 (2017), pp. 57-66, 10.1016/j.nut.2016.12.003

NK Senftleber, SM Nielsen, JR Andersen, H Bliddal, S Tarp, L Lauritzen, et al. Marine oil supplements for arthritis pain: a systematic review and meta-analysis of randomized trials Nutrients, 9 (2017), 10.3390/nu9010042

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