



Short Communication

**MSG – DEMON IN FOOD**

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**ABSTRACT**

Flavor enhancers are used to bring out the flavor in a wide range of foods without adding a flavor of their own. Any food product that can be added to food to enhance its taste especially to make it taste more savoury or to add more Umami flavor. Umami taste that is found also in Glutamate. The anti MSG forces counter such information by stating that naturally occurring glutamate is different than added Glutamate is different than added glutamate. Research has demonstrated, However that the two are indeed metabolized identically.

**KEYWORDS**

Flavor enhancers, umami taste, glutamate.

**Flavor Enhancers**

Flavor enhancers are additives which are added to bring out the flavor in a variety of foods without adding any significant flavor of their own. If these are added in limited quantities then they are considered as safe, but when ingested in large quantities they may lead to high blood pressure or allergies. Natural flavor enhancers increase the stability of food. For eg. Salt is used as a natural flavor enhancer for food and has been identified as one of the basic tastes. StabilEase is one of the natural flavor enhancers which has been latest developed. When it is added in milk it increases the bioactive calcium in milk. Flavor enhancers are usually used in processed foods, especially soups, sauces and sausages. Other applications are foods including savory snacks, prepared meals and condiments.

Food Flavor Enhancers used -

- E620: Glutamic Acid
- E621: Monosodium Glutamate, MSG
- E622: Monopotassium Glutamate
- E623: Calcium Diglutamate
- E624: Monoammonium glutamate
- E625: Magnesium Diglutamate
- E626: Guanylic acid
- E627: Disodium guanylate
- E628: Dipotassium guanylate
- E629: Calcium Guanylate
- E630: Inosinic acid
- E631: Disodium Inosinate
- E632: Dipotassium inosinate
- E633: Calcium inosinate
- E634: Calcium 5'ribonucleotides

- E635: Disodium 5'ribonucleotides
- E636: Maltol
- E637: Ethyl maltol
- E640: Glycine and its sodium salt
- E641: L-Leucine

Common Food Flavor Enhancer used is MONO SODIUM GLUTAMATE (MSG)

Monosodium glutamate is the sodium salt of the common amino acid glutamic acid. It is naturally occurring non essential amino acid. Being an important component of all proteins. Glutamate is found in tomatoes, Parmesan cheese, potatoes, mushrooms and other vegetables and fruits.

Monosodium glutamate is used as seasoning or flavor enhancer since it was first isolated from seaweed more than a century ago and is now recognised the most pure example of umami or savoury taste. Umami taste is the fifth taste-savory, broth like or meaty taste. In addition to sweet, sour, salty and bitter. The body treats glutamate in exactly the same way whether it comes from the food we eat or from seasoning. MSG that is added to foods is produced by a natural fermentation process, similar to the processes used to make yogurt or vinegar. MSG has only two components: Sodium and a glutamate.

MSG is not only added for Umami character to food but also be used to reduce the salt content as it contains only one third the amount of sodium as table salt. It is beneficial for those who do not enjoy eating as this food enhancer increases the food flavor. MSG is a natural flavor that is used as a food additive under the category of food flavor enhancers.

### **FDA Guidelines**

As per the Drug Administration these are stimulants that disrupts healthy functions of the endocrine system That is if you include them in your diet. MSG may be the most pervasive. The stimulants which affects most are sugar if eaten alone MSG Aspartem and high fructose corn syrup. The FDA has classified MSG as a food ingredient that is generally recognized as safe but its use remains controversial. Intake of MSG can cause allergies in some consumers. So you must be aware of the fact whether you are allergic to Monosodium glutamate or not. For the reason, When MSG is added to food the FDA requires that it be listed on the label. FDA has received many anecdotal reports of adverse reaction to foods containing MSG. The reactions take place due to over intake of MSG are:

- Headache
- Flushing
- Sweating
- Facial pressure or tightness
- Numbness, tingling or burning in the face, neck and other areas
- Rapid, fluttering heartbeats (heart palpitations)
- Chest pain
- Nausea
- Weakness

### **These ingredients ALWAYS contain MSG:**

- Autolyzed Yeast
- Glutamate
- Monopotassium Glutamate
- Textured Protein
- Yeast Nutrient
- Calcuim Caseinate

- Glutamic Acid
- Monosodium Glutamte
- Yeast Food & Extract
- Gelatin
- Hydrolyzed Protein
- Sodium Casienate

These Ingredients Often contain MSG or create MSG during Processing:

Flavors and Flavorings:

- Natural kitchen Flavoring
- Seasonings
- Soy protein isolates, Soy sauce
- Corn starch
- Natural beef flavorings
- Powdered Milk.

### **REFERENCES**

- 1) FDA and Monosodium Glutamate (MSG), U. S. Food and Drug Administration. [FDA Backgrounder: August 31, 1995]
- 2) WHO 1988. Toxicological Evaluation of certain food Additives (Prepared by the 31st meeting of JECFA).WHO food Additives Series No 22, Cambridge University Press.
- 3) Report of the Scientific Committee for Food On Adverse Reactions to food and Food Ingredients. Food Sciences and Techniques, EC, 1997, 1-29.
- 4) Geha R S et al. Muticentre, Double blind, Placebo-controlled, Multiple challenge evaluation of reported reactions to monosodium glutamate. *J. Allergy clin Immunol.*, 2000, 106; 973-980
- 5) Fernstrom JD and Garatini S 2000. International Symposium on Glutamate (Proceedings of the symposium Held Oct, 1998 in Bergamo, Italy).