

**Names of ingredients that contain processed free glutamic acid (MSG)<sup>1</sup>**

(Last updated March, 2014)

Everyone knows that some people react to the food ingredient monosodium glutamate. What many don't know, is that more than 40 different ingredients contain the chemical in monosodium glutamate (processed free glutamic acid) that causes these reactions. The following list has been compiled over the last 20 years from consumer reports and information provided by manufacturers and food technologists.

<b>Names of ingredients that always contain processed free glutamic acid:</b>	<b>Names of ingredients that often contain or produce processed free glutamic acid during processing:</b>	<b>The following are ingredients suspected of containing or creating sufficient processed free glutamic acid to serve as MSG-reaction triggers in <b>HIGHLY SENSITIVE</b> people:</b>
Glutamic acid (E 620) <sup>2</sup> Glutamate (E 620) Monosodium glutamate (E 621) Monopotassium glutamate (E 622) Calcium glutamate (E 623) Monoammonium glutamate (E 624) Magnesium glutamate (E 625) Natrium glutamate Anything "hydrolyzed" Any "hydrolyzed protein" Calcium caseinate, Sodium caseinate Yeast extract, Torula yeast Yeast food, Yeast nutrient Autolyzed yeast Gelatin Textured protein Whey protein Whey protein concentrate Whey protein isolate Soy protein Soy protein concentrate Soy protein isolate Anything "protein" Anything "protein fortified" Soy sauce Soy sauce extract Anything "enzyme modified" Anything containing "enzymes" Anything "fermented" Anything containing "protease" Vetsin	Carrageenan (E 407) Bouillon and broth Stock Any "flavors" or "flavoring" Natural flavor Maltodextrin Oligodextrin Citric acid, Citrate (E 330) Anything "ultra-pasteurized" Barley malt Malted barley Brewer's yeast Pectin (E 440) Malt extract Seasonings	Corn starch Corn syrup Modified food starch Lipolyzed butter fat Dextrose Rice syrup Brown rice syrup Milk powder Reduced fat milk (skim; 1%; 2%) most things "low fat" or "no fat" anything "enriched" anything "vitamin enriched" anything "pasteurized" Annatto Vinegar Balsamic vinegar certain amino acid chelates (Citrate, aspartate, and glutamate are used as chelating agents with mineral

<p>Ajinomoto Umami</p>	<p>(1) Glutamic acid found in <b>unadulterated protein</b> does not cause adverse reactions. To cause adverse reactions, the glutamic acid must have been processed/manufactured or come from protein that has been fermented.</p> <p>(2) E numbers are use in Europe in place of food additive names.</p>	<p>supplements.)</p>
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**The following work synergistically with MSG to enhance flavor. If they are present for flavoring, so is MSG.**  
 Disodium 5'-guanylate (E 627) Disodium 5'-inosinate (E-631) Disodium 5'-ribonucleotides (E 635)

### Reminders

Low fat and no fat milk products often contain milk solids that contain MSG and many dairy products contain carrageenan, guar gum, and/or locust bean gum. Low fat and no fat ice cream and cheese may not be as obvious as yogurt, milk, cream, cream cheese, cottage cheese, etc., but they are not exceptions.

Protein powders contain glutamic acid, which, invariably, will be processed free glutamic acid (MSG). Individual amino acids are not always listed on labels of protein powders. If you see **the word “protein”** in an ingredient label, the product contains MSG.

At present there is an FDA requirement to include the protein source when listing hydrolyzed protein products on labels of processed foods. Examples are hydrolyzed soy protein, hydrolyzed wheat protein, hydrolyzed pea protein, hydrolyzed whey protein, hydrolyzed, corn protein. If a tomato, for example, were whole, it would be identified as a tomato. Calling an ingredient tomato protein indicates that the tomato has been hydrolyzed, at least in part, and that processed free glutamic acid (MSG) is present.

Disodium guanylate and disodium inosinate are relatively expensive food additives that work synergistically with inexpensive MSG. Their use suggests that the product has MSG in it. They would probably not be used as food additives if there were no MSG present.

MSG reactions have been reported from soaps, shampoos, hair conditioners, and cosmetics, where MSG is hidden in ingredients with names that include the words "hydrolyzed," "amino acids," and/or "protein." Most sun block creams and insect repellents also contain MSG.

Drinks, candy, and chewing gum are potential sources of hidden MSG and/or aspartame, neotame, and AminoSweet (the new name for aspartame). Aspartic acid, found in neotame, aspartame (NutraSweet), and AminoSweet, ordinarily causes MSG type reactions in MSG sensitive people. (It would appear that calling aspartame "AminoSweet" is industry's method of choice for hiding aspartame.) We have not seen Neotame used widely in the United States.

Aspartame will be found in some medications, including children's medications. For questions about the ingredients in pharmaceuticals, check with your pharmacist and/or read the product inserts for the names of "other" or "inert" ingredients.

Binders and fillers for medications, nutrients, and supplements, both prescription and non-prescription, enteral feeding materials, and some fluids administered intravenously in hospitals, may contain MSG.

According to the manufacturer, Varivax–Merck chicken pox vaccine (Varicella Virus Live), contains L-monosodium glutamate and hydrolyzed gelatin, both of which contain processed free glutamic acid (MSG) which causes brain lesions in young laboratory animals, and causes endocrine disturbances like OBESITY and REPRODUCTIVE disorders later in life. It would appear that most, if not all, live virus vaccines contain some ingredient(s) that contains MSG.

Reactions to MSG are dose related, i.e., some people react to even very small amounts. MSG-induced reactions may occur immediately after ingestion or after as much as 48 hours. The time lapse between ingestion and reaction is typically the same each time for a particular individual who ingests an amount of MSG that exceeds his or her individual tolerance level.

Remember: By food industry definition, all MSG is "naturally occurring." "Natural" doesn't mean "safe." "Natural" only means that the ingredient started out in nature, like arsenic and hydrochloric acid.

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For additional help see our Recipeless Cookbook: [www.truthinlabeling.org/CookBook\\_Final.pdf](http://www.truthinlabeling.org/CookBook_Final.pdf)

Prepared by the Truth in Labeling Campaign

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