

Table 1. Sources of processed/manufactured free glutamic acid* **

Names of ingredients that always contain processed free glutamic acid:	Names of ingredients that often contain or produce processed free glutamic acid:	The following are ingredients suspected of containing or creating sufficient processed free glutamic acid to serve as MSG-reaction triggers in HIGHLY SENSITIVE people:
Glutamic acid (E 620), ¹ 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 Yeast food, Yeast nutrient Torula yeast 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 Protease Anything “enzyme modified” Anything containing “enzymes” Anything “fermented” Vetsin Ajinomoto Umami Zinc proteninate	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 supplements (1) E numbers are use in Europe in place of food additive names. (Not all glutamate-containing ingredients are classified as additives)

The following work synergistically with glutamate to enhance flavor. If they are present for flavoring, so is processed free glutamate
 Disodium 5'-guanylate (E 627) Disodium 5'-inosinate (E-631) Disodium 5'-ribonucleotides (E 635)

*Glutamic acid found in unadulterated protein does not cause brain damage, endocrine disorders, or adverse reactions. To cause adverse events, glutamic acid must have been processed /manufactured or come from protein that has been fermented.

**Compiled by A. Samuels over the last 30 years from consumer reports and information provided by manufacturers and food technologists