**Supplementary Table 1**

MUPs and their individual compounds within the nine categories1

|  |  |  |
| --- | --- | --- |
| **Category** | **MUPs** | **Individual compound** |
| **Cosmetic additives** | | |
| 1. Flavours | 1. Flavour | Flavor  Flavour |
| 1. Flavour enhancers | 1. E62\* | E620 – E629 |
| 1. E63\* | E630 – E637 |
| 1. E640 | E640 |
| 1. E650 | E650 |
| 1. Flavour enhancer | Flavour enhancer |
| 1. Glutam\* | [Calcium diglutamate](https://en.wikipedia.org/wiki/Calcium_diglutamate)  Glutamic acid  [Magnesium diglutamate](https://en.wikipedia.org/wiki/Magnesium_diglutamate)  [Monoammonium glutamate](https://en.wikipedia.org/wiki/Monoammonium_glutamate)  [Monopotassium glutamate](https://en.wikipedia.org/wiki/Monopotassium_glutamate)  [Monosodium glutamate](https://en.wikipedia.org/wiki/Monosodium_glutamate) |
| 1. Glycine | Glycine  [Glycine](https://en.wikipedia.org/wiki/Glycine) and its sodium salt |
| 1. Guanyl\* | [Calcium guanylate](https://en.wikipedia.org/wiki/Calcium_guanylate)  [Dipotassium guanylate](https://en.wikipedia.org/wiki/Dipotassium_guanylate)  [Disodium guanylate](https://en.wikipedia.org/wiki/Disodium_guanylate)  [Guanylic acid](https://en.wikipedia.org/wiki/Guanylic_acid)  Sodium guanylate |
| 1. Inosin\* | [Calcium inosinate](https://en.wikipedia.org/wiki/Calcium_inosinate)  [Dipotassium inosinate](https://en.wikipedia.org/wiki/Dipotassium_inosinate)  [Disodium inosinate](https://en.wikipedia.org/wiki/Disodium_inosinate)  [Inosinic acid](https://en.wikipedia.org/wiki/Inosinic_acid) |
| 1. Maltol | Ethyl maltol  Maltol |
| 1. MSG | MSG |
| 1. Ribonucleotide\* | [Calcium 5'-ribonucleotides](https://en.wikipedia.org/wiki/Calcium_5%27-ribonucleotides)  [Disodium 5'-ribonucleotides](https://en.wikipedia.org/wiki/Disodium_5%27-ribonucleotide) |
| 1. Zinc acetate | Zinc acetate |
| 1. Colouring agents | 1. Colour | Colour  Colour stabiliser |
| 1. Dye | Dye |
| 1. Sweeteners | 1. Acesulfame | Acesulfame K  Salt of aspartame-acesulfame |
| 1. Advantame | Advantame |
| 1. Aspartame | Aspartame  Salt of aspartame-acesulfame |
| 1. Cyclam\* | Cyclamate  Cyclamic acid |
| 1. E420 | E420 |
| 1. E421 | E421 |
| 1. E95\* | E950 – E959 |
| 1. E96\* | E960 – E969 |
| 1. Erythritol | Erythritol |
| 1. Isomalt | Isomalt |
| 1. Lactitol | Lactitol |
| 1. Maltitol | Maltitol  Maltitol syrup |
| 1. Mannitol | Mannitol |
| 1. Neohesperidine | Neohesperidine DC |
| 1. Neotame | Neotame |
| 1. Polyglycitol | Polyglycitol |
| 1. Saccharin | Saccharin |
| 1. Sorbitol | Sorbitol  Sorbitol syrup |
| 1. Steviol | Steviol glycoside |
| 1. Sucralose | Sucralose |
| 1. Sweetener | Sweetener |
| 1. Thaumatin | Thaumatin |
| 1. Xylitol | Xylitol |
| 1. Processing aids | 1. Bulking | Anti-bulking  Bulking agent |
| 1. Caking | Anti-caking agent  Anticaking agent |
| 1. Carbonating | Carbonating agent |
| 1. Emulsif\* | Emulsifier  Emulsifying salts |
| 1. Firming | Firming agent |
| 1. Foaming | Anti-foaming agent  De-foaming agent  Foaming agent |
| 1. Gelling | Gelling agent |
| 1. Glazing | Glazing agent |
| 1. Humectant | Humectant |
| 1. Sequestrant | Sequestrant |
| 1. Thickener | Thickener |
| **Non-culinary ingredients** | | |
| 1. Varieties of sugar | 1. Barley malt extract | Barley malt extract# |
| 1. Dextrose | Dextrose  Polydextrose# |
| 1. Fructose | Fructose  Fructose-glucose syrup# Glucose-fructose syrup#  High-fructose corn syrup |
| 1. Invert\* | Inverted refiners syrup#  Inverted sugar syrup#  Invert sugar |
| 1. Lactose | Lactose |
| 1. Maltodextrin | Maltodextrin |
| 1. Modified oils | 1. Hydrogenated | Hydrogenated oil |
| 1. Interesterified | Interesterified oil |
| 1. Protein sources | 1. Casein | Casein |
| 1. Gluten | Gluten |
| 1. Hydrolysed | Hydrolysed protein |
| 1. Isolate\* | Isolated soy protein  Protein isolate#  Soy protein isolate |
| 1. Mechanically separated meat | Mechanically separated meat |
| 1. Whey | Dried whey#  Whey#  Whey derivatives#  Whey permeate#  Whey powder#  Whey protein  Whey solids# |
| 1. Fibres | 1. Fibre | Fibre  Fibre isolate#  Insoluble fibre  Soluble fibre |

1Individual compounds are based on NOVA group 4(3,13). \*Indicates that all variations of the word are possible (e.g., glutamic and glutamate are possible for glutam\*). #Indicates individual compounds which are not literally mentioned in the two publications(3,13) but which are related to the ultra-processing compounds mentioned.