

Umami Booster

MSG Replacement



NovaTaste



Flavor enhancers in comparison

1

**Glutamat/
MSG**

2

Yeast extract

3

**HVP/
Seasoning**

4

**Spices/
extracts**

Theory: From glutamate to umami

Additive: Flavor enhancer

Definition: compounds that enhance the flavor of certain foods without having a distinct taste or odor even in the effective concentration range Verstärkungseffekt:

- Aroma sensation
- Fullness, volume, body, freshness (especially with thermally processed foods)
- Speed of the aroma impression = “time factor potentiator”

| E-Nr | Stoff | Bemerkungen |
|-------|----------------------|--|
| E 620 | Glutaminsäure | Glutamates, seasoning for flavor enhancement, substitute for salt. |
| E 621 | Natriumglutamat | |
| E 622 | Monokaliumglutamat | |
| E 623 | Calciumdiglutamat | |
| E 624 | Monoammoniumglutamat | |
| E 625 | Magnesiumdiglutamat | |

Source : Bellitz, Grosch, Schieberle, Lehrbuch der Lebensmittelchemie, S. 422, 5. Auflage, Springer Verlag, 2001



Theory: From glutamate to umami

Additive: Flavor enhancer, legal aspects

- Is generally approved for food up to 10 g/kg*
- Actual dosages usually 1-5 g/kg
- not permitted in organic products

Deklaration:

- "Flavor enhancer: E621" or "Flavor enhancer: monosodium glutamate"



Theory: From glutamate to umami

Monosodium glutamate - E621

- Salt of glutamic acid
- Glutamic acid is the most common protein building block (non-essential amino acid)

Effect in the body:

- independent formation
- Natural free glutamate & flavor enhancer (glutamate is immediately absorbed and metabolized)
- Starting material for the body's own proteins
- important role as a messenger substance in the brain/neurotransmitter - glutamic acid involved in pain transmission, body growth, weight regulation & appetite control

Natural occurrence of glutamate

| Food Item | Bound Glutamate (mg/100g) | Free Glutamate (mg/100g) |
|-----------------|---------------------------|--------------------------|
| Parmesan cheese | ~9,847 | ~1,200 |
| Chicken meat | ~3,309 | ~44 |
| Beef | ~2,846 | ~33 |
| Pork | ~2,325 | ~23 |
| Mackerel | ~2,382 | ~36 |
| Salmon | ~2,216 | ~20 |
| Cod | ~2,101 | ~9 |
| Peas | ~5,583 | ~200 |
| Corn | ~1,765 | ~130 |
| Eggs | ~1,583 | ~23 |
| Tomatoes | ~238 | ~140 |
| Cow's milk | ~819 | ~2 |

Intensification of the sensory impression, especially with meat-like flavors!

Source: Bera et al. 2017, Glutamate in meat processing – origin, function and novel application



Umami Booster: Description and advantages



Umami Booster

Product details

Product description: Seasoning mix

Product benefits:

- aromatic, meaty seasoning with a slight hint of onion
- suitable for sausage and meat products of all kinds; such as cooked sausage, cooked cured products, raw sausage etc., convenience applications, vegetarian/vegan products
- without allergens (according to EU regulations)
- without added taste enhancing additives

Labelling recommendation: : Salt, dextrose, natural flavouring, spices

Dosage: according to taste

Item no.: 284412, 1 kg



Umami Booster

Benefits

- **seasoning mix with aroma/modulator** to intensify the full and meaty taste
- blend can be **customized**
- **no process change** necessary in the end product
- **heat stable**
- claim “without the addition of flavor enhancers” or “without the addition of glutamate” - possible (depending on the regulation)
- fully aromatic, meaty, intense flavor
- also suitable for products that do not contain glutamate

Conclusion: Support to ensure the goal of a “healthier” recipe and a more appealing end product!



Crafting
a world of
taste



NovaTaste