UNDERSTANDING THE THRESHOLD FOR NANOPARTICLES

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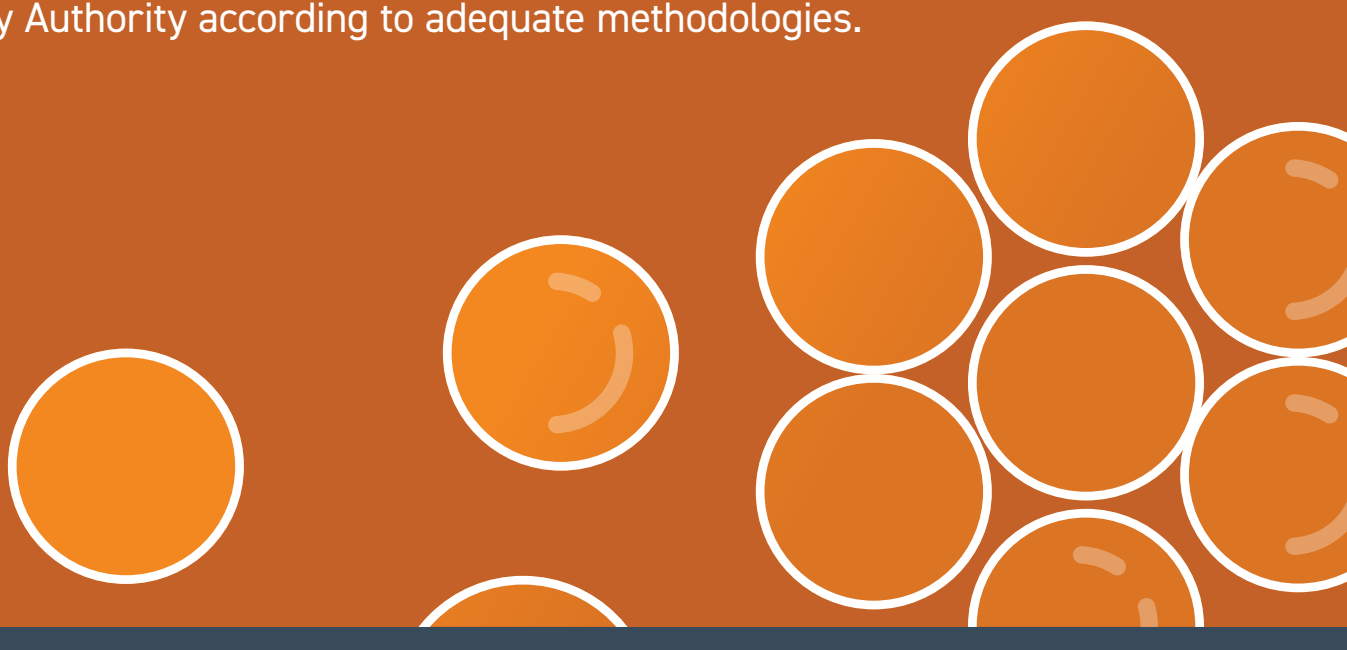
Imagine a bagel with one large piece of dough and 99 sesame seeds on top. In total, you would have 100 pieces. If you just counted the pieces, you would say that 99% of the bagel is sesame, even though it is less than 1% of the total volume. That's how the definition of a nanomaterial currently works.

Number-based size distribution

In the EU, a nanomaterial is defined by the proportion of solid particles in a material, where 50% or more of these particles fall within the size range of 1 to 100 nanometres. However, this single criterion does not sufficiently define a nanomaterial, and many other scientific criteria should therefore be included.

Nanoparticles may make up a significant proportion of the total number of particles, but contribute very little to the total volume

Regardless of its value (1, 10, 50 or 90%), the threshold for nanoparticles does not impact the safety of substances like food additives, novel food ingredients and nutrients. No matter the percentage of nano-particles that may be present, the safety of these ingredients is assessed by the European Food Safety Authority according to adequate methodologies.



Labelling of engineered nanomaterials

The current legal definition of engineered nanomaterials in food legislation does not include a threshold.

Volume-based approach: If there is a threshold for engineered nanomaterials in the future, it should be based on volume to ensure that consumers are not misled about the significance of these ingredients. Ultimately, consumers eating a sesame bagel will never have the impression that they are ingesting 99% sesame and 1% dough.

Accurate labelling helps to keep consumer information real and relevant, and minimises fearmongering.

REFERENCES

- EFSA video What is nanotechnology?
- Commission Recommendation 2022/C229/01 on the definition of nanomaterial
- Regulation (EU) 2015/2283 on novel foods
- Regulation (EU) 1169/2011 on the provision of food information to consumers
- EFSA Guidance on technical requirements for regulated food and feed product applications to establish the presence of small particles including nanoparticles
- EFSA Guidance on risk assessment of nanomaterials to be applied in the food and feed chain: human and animal health
- EU Specialty Food Ingredients Factsheet: Understanding nanoparticles and engineered nanomaterials: use and labelling