

## Nanotechnology and Nanomaterial

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The following Jungbunzlauer products

- Calcium Lactate Gluconate
- Citric Acid
- Citric Acid DC
- Citric Acid S40
- CITROCOAT® EP
- CITROCOAT® N
- CITROFOL®
- Encapsulated Glucono-delta-Lactone eGdL
- ERYLITE®
- ERYLITE® Bronze
- ERYLITE® Stevia
- ERYLITE® Monkfruit
- Gluconic Acid
- Glucono-delta-Lactone
- GLUCOSET
- L(+)-Lactic Acid
- L(+)-Lactic Acid Buffered
- LIQUINAT®
- Magnesium Lactate
- Monomagnesium Citrate
- Monosodium Citrate
- NAGLUSOL®
- Potassium Gluconate
- Potassium L(+)-Lactate
- Potassium L(+)-Lactate/Potassium Acetate
- Potassium L(+)-Lactate/Potassium Diacetate
- Potassium L(+)-Lactate/Sodium Acetate
- Potassium L(+)-Lactate/Sodium Diacetate
- Potassium L(+)-Lactate/Vinegar
- Sodium Gluconate
- Sodium Gluconate EMF
- Sodium L(+)-Lactate
- Sodium L(+)-Lactate/Sodium Diacetate
- sub4salt®
- TayaGel®
- Tricalcium Citrate
- Trimagnesium Citrate
- Tripotassium Citrate
- Trisodium Citrate
- Xanthan Gum
- Xanthan Gum Blends
- Zinc Citrate
- Zinc Gluconate
- Zinc Lactate

are either manufactured by fermentation of glucose syrup derived from corn or further processing (e.g. neutralisation, esterification, agglomeration, coating, blending etc.). The products undergo several purification steps and are finally obtained in their highly pure form.

We herewith confirm that the above mentioned products are not to be classified as nanomaterials according to the new EU Commission recommendation on the definition of nanomaterials of June 10, 2022 (C(2022) 3689).<sup>1)</sup>

In addition, we confirm that the above mentioned products are neither intentionally produced by nanotechnology nor contain engineered nanomaterial as defined in:

- Article 2, paragraph 2 (t) of the Regulation (EU) No 1169/2011 <sup>2)</sup>
- Article 2 (k) of the Regulation (EU) No 1223/2009 <sup>3)</sup>

Furthermore, the packaging materials used by Jungbunzlauer are not nano-coated.

**1) Definition of 'nanomaterials' according to EU recommendation C(2022) 3689**

'Nanomaterial' means a natural, incidental or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions:

- (a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;
- (b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm;
- (c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.

In the determination of the particle number-based size distribution, particles with at least two orthogonal external dimensions larger than 100 µm need not be considered. However, a material with a specific surface area by volume of < 6 m<sup>2</sup>/cm<sup>3</sup> shall not be considered a nanomaterial.

**2) Definition according to -Article 2, paragraph 2 (t) of the Regulation (EU) No 1169/2011**

'Engineered nanomaterial' means any intentionally produced material that has one or more dimensions of the order of 100 nm or less or that is composed of discrete functional parts, either internally or at the surface, many of which have one or more dimensions of the order of 100 nm or less, including structures, agglomerates or aggregates, which may have a size above the order of 100 nm but retain properties that are characteristic of the nanoscale. Properties that are characteristic of the nanoscale include:

- (i) those related to the large specific surface area of the materials considered; and/or
- (ii) specific physico-chemical properties that are different from those of the non-nanoform of the same material.

**3) Definition according to Article 2 (k) of Regulation (EU) No 1223/2009**

'Nanomaterial' means an insoluble or biopersistent and intentionally manufactured material with one or more external dimensions, or an internal structure, on the scale from 1 to 100 nm.