

QUALITY CONCEPT

Quality concept for fruit and herbal infusions and tea blends

Three clearly defined quality levels for safe, reproducible and market-oriented product development.

Quality can be planned.

Economy, Premium Economy and Business Class allow analytical requirements to be clearly defined during the project phase and implemented reproducibly over the long term.

Background

Flavoured fruit and herbal infusion blends, as well as black and green tea blends containing flowers, herbs, fruits or other ingredients, are considered composite foods. For the product to be legally marketable, every ingredient used must comply with the legal requirements applicable to that ingredient - for example, tea with the requirements for tea, apple with those for apple and peppermint with those for peppermint.

At the same time, tea and infusion blends are often assessed across the board as "other herbal infusions" in consumer and comparative product tests. The maximum residue levels applicable to that category may differ from those for the individual ingredients. This can lead to different assessments, complaints or product recalls, particularly in the private-label business.

Requirements for product safety and analytical quality are increasing continuously. Private labels of supermarkets, discounters and drugstores in particular often define additional requirements that go beyond basic legal marketability.

Our quality approach

We produce fruit and herbal infusions as well as black and green tea blends for brands, private labels, packers and the iced-tea industry worldwide. We source more than 90% of our raw materials directly from the countries of origin. Long-standing, cooperative supplier relationships enable us to influence cultivation, processing and social standards.

All batches are comprehensively inspected upon arrival in Germany, analysed by accredited laboratories and released only afterwards. A specially developed IT system supports the reliable management of complex analytical requirements and data flows.

Our objective is to create a blend that meets the defined sensory and analytical requirements and can be reproduced reliably over the long term.

The three quality levels

ECONOMY**Legal compliance**

Each individual ingredient meets the applicable statutory requirements of the EU.

PREMIUM ECONOMY**Extended market standard**

For the "other herbal infusions" category, up to 100% of the applicable EU maximum residue levels may be used.

BUSINESS CLASS**Highest internal standard**

For the "other herbal infusions" category, no more than 50% of the applicable EU maximum residue levels may be used.

Definition and assessment criteria

Business Class	The blend uses no more than 50% of the legally permitted maximum residue levels for plant protection products in the "other herbal infusions" category under Regulation (EC) No 396/2005. For multiple residues, no more than five substances should be detectable above 0.01 mg/kg. Findings below 0.01 mg/kg are not counted. Where the statutory maximum level is 0.01 mg/kg, the laboratories' analytical measurement uncertainty of 50% is taken into account; the maximum value is 0.02 mg/kg.
Premium Economy	The blend uses up to 100% of the legally permitted maximum residue levels for plant protection products in the "other herbal infusions" category under Regulation (EC) No 396/2005. Findings below 0.01 mg/kg are not counted. Where the statutory maximum level is 0.01 mg/kg, the laboratories' analytical measurement uncertainty of 50% is taken into account; the maximum value is 0.02 mg/kg.
Economy	The blend complies with Regulation (EC) No 396/2005, as amended. In the composite food, each individual ingredient meets the requirements applicable to that ingredient. Where the statutory maximum level is 0.01 mg/kg, the laboratories' analytical measurement uncertainty of 50% is taken into account; the maximum value is 0.02 mg/kg.

Our recommendation

Business Class is already required by a large proportion of private-label customers in Germany and Austria. For the German retail market, we recommend Business Class or at least Premium Economy.

Good to know

For critical ingredients, such as lemon or orange peel, we use exclusively organic raw materials in Premium Economy and Business Class. We also limit the proportion of higher-risk raw materials in order to keep inputs of pesticides, pyrrolizidine alkaloids (PA) and tropane alkaloids (TA) as low as possible.

Limits at a glance

The following values correspond to the stated quality concept. Unless otherwise indicated, all values apply to the finished blend.

Test parameter	Economy	Premium Economy	Business Class
Perchlorate	Max. 0.75 mg/kg	Max. 0.75 mg/kg	Max. 0.5 mg/kg
PA for herbs (from 1 July 2022) Rooibos, aniseed, lemon balm, chamomile, thyme, peppermint, lemon verbena and blends consisting exclusively of these ingredients	Max. 400 µg/kg	Peppermint: max. 120 µg/kg Fennel: max. 110 µg/kg Chamomile: max. 270 µg/kg Rooibos: max. 350 µg/kg	Peppermint: max. 120 µg/kg Fennel: max. 100 µg/kg Chamomile: max. 250 µg/kg Rooibos: max. 100 µg/kg
PA for other herbs and blends	Max. 200 µg/kg	Max. 160 µg/kg	Max. 50 µg/kg (+/- 50% measurement uncertainty)
TA for herbal infusions (from 1 September 2022) Sum of atropine and scopolamine	Max. 25 µg/kg	Max. 25 µg/kg	Max. 15 µg/kg
TA for aniseed (from 1 September 2022) Sum of atropine and scopolamine	Max. 50 µg/kg	Max. 50 µg/kg	Max. 20 µg/kg
Aflatoxin B1 for blends without ginger, liquorice, turmeric and chilli	-	Max. 5 µg/kg	Max. 2 µg/kg
Total aflatoxins for blends without ginger, liquorice, turmeric and chilli	-	Max. 10 µg/kg	Max. 4 µg/kg
Ochratoxin A for blends containing ginger, turmeric or liquorice	-	-	Max. 5 µg/kg
Patulin for blends containing apple	-	-	Max. 100 µg/kg

* "-" means that the quality concept does not specify an additional internal limit. The applicable statutory requirements remain binding.

Requirements applying to all quality levels

Physical properties

- Residual moisture: maximum 12%.
- Free from live animals and insects.
- Free from hazardous components in accordance with the state of the art.
- Maximum 0.5% extraneous plant material.
- Maximum 1% extraneous matter and extraneous plant material in total.

Packaging, irradiation, radioactivity and GMOs

- The packaging is food-compliant and PPWR-compliant.
- The product and its precursors have not been treated with ionising or ultraviolet radiation.
- The product complies with Council Regulation (EEC) No 737/90 of 22 March 1990 and the corresponding amendments.
- The blend is not subject to labelling requirements for genetically modified organisms under Regulations (EC) No 1829/2003 and No 1830/2003, as amended.

Specific requirements for organic products

- Organic products are not treated with plant protection products, except substances authorised under the relevant EU legislation. Cross-contamination from air, soil or water cannot be completely ruled out. Undesirable substances are assessed under Article 28 as part of our risk-based quality assurance release; suspected cases undergo further investigation.
- The products comply with the current guidance values for synthetic chemical pesticides and preservatives issued by the Bundesverband Naturkost Naturwaren (BNN), Annex 4. The reference is the dried product, not the infusion.
- The BNN interpretations for anthraquinone and for folpet as the sum of phthalimide and folpet apply. For anthraquinone and folpet, the same maximum residue levels as for the quality categories for conventional products must be taken into account.
- Nicotine, chlorine and perchlorate are not assessed as pesticides but as contaminants.
- DDT may remain in soil as a legacy contaminant and can still be detected today in traces far below the statutory EU maximum levels.

Harmonised bulk volume

- Bulk volume is critical to the packability of a blend on different packaging machines. It depends on the make and model of the tea-packing machine and the respective bag weight. We adjust the products to the specified bulk volumes.
- Fine granulated cuts can generally make the product heavier or denser. Because they require more complex production, fine granulated cuts are usually more expensive. The visual appearance of the blend may vary slightly.

Optional analyses of finished blends

Batch-specific certificates of analysis can be prepared before delivery on request. The additional analysis time is generally 5-8 working days.

Analysis	Price
Pesticides	EUR 180
Glyphosate (for organic products)	EUR 140
Microbiology	EUR 55
PA / TA	EUR 150
Other analyses	Price on request

Alternative without additional laboratory analysis

As comprehensive analyses are available for almost all raw materials, the residue levels contributed by the raw-material batches used can be calculated within a blend and presented in a certificate of conformity. This option is free of charge and does not result in additional analysis or release lead times.

- Calculation of the expected pesticide levels based on the analyses of the raw-material batches used.
- Provision of the relevant raw-material analyses in response to queries or directly via our digital transparency tool.