Position Paper on Chlorate Residues in Xanthan

The positions set out in this document relate to current legislative approaches concerning a possible restriction of xanthan as a food additive, which are currently being discussed at EU level in connection with findings of chlorate residues. At the request of the competent authority, data on chlorate levels in xanthan were collected in this context in order to demonstrate compliance with the ALARA principle in line with Good Manufacturing Practice.

Key Concerns

- **No general EU maximum limit for xanthan:** Xanthan (E 415) is not listed in Annex I of Regulation (EC) No 396/2005. The default value of 0.01 mg/kg is therefore not directly applicable. Any chlorate maximum level for xanthan would require an independent, toxicologically justified and risk-based decision.
- **Chlorate is not an intrinsic component of xanthan**: Based on the current state of knowledge, chlorate is not formed as a natural constituent of the polymer but may arise during the manufacturing process. Potential sources include reactive chlorine compounds from chlorinated process water, cleaning and disinfection agents, or process chemicals. The use of hydrochloric acid for pH adjustment and enzyme inactivation is technologically standard and legally permissible; it does not automatically render the finished product a different or unauthorised product. Where specific risks arise from this, targeted adjustments to the specifications would need to be assessed.
- **Exposure and toxicological assessment must be taken into consideration**: Dietary exposure to chlorate from foods containing xanthan is likely to be low in view of the small usage levels in the finished product, compared with other sources. Regulatory decisions should therefore be based on a realistic exposure assessment that takes actual use levels and established toxicological reference values into account.

•**Implications for supply chain and products**: A chlorate limit of 0.1 mg/kg would have significant implications for the supply and production chain. Bottlenecks, reformulation, cost increases, and restrictions in product availability would be expected, for example for sauces, plant-based alternatives, and gluten-free baked goods.

The VDC (Association of Firms engaged in Wholesale and Foreign Trade in Drugs and Chemicals) represents, among others, the interests of German importers of food additives such as gum arabic (E 414), guar gum (E 412), **xanthan (E 415)** and locust bean gum (E 410). Our member companies are major suppliers to customers in the European food industry. They express considerable concern regarding the current draft opinion of SCoPAFF and point out that the proposed chlorate maximum level of 0.1 mg/kg can indeed be achieved through recent adjustments using best available manufacturing practice, but may result in residual enzymatic activity.

Evaluation of measured chlorate levels in xanthan

Against the background of the European Commission's intended establishment of a maximum residue level (MRL) of 0.1 mg/kg chlorate in xanthan, we are providing below, in addition to our previous statement on the causes of chlorate ingress, the data on chlorate levels collected by our member companies. These data demonstrate a gradual reduction of chlorate levels in xanthan in accordance with Good Manufacturing Practice and the ALARA principle. The corresponding data are presented graphically, with the measured chlorate levels plotted against the respective production date. The underlying data are provided in the Excel file attached, and the relevant analytical certificates can also be provided upon request.

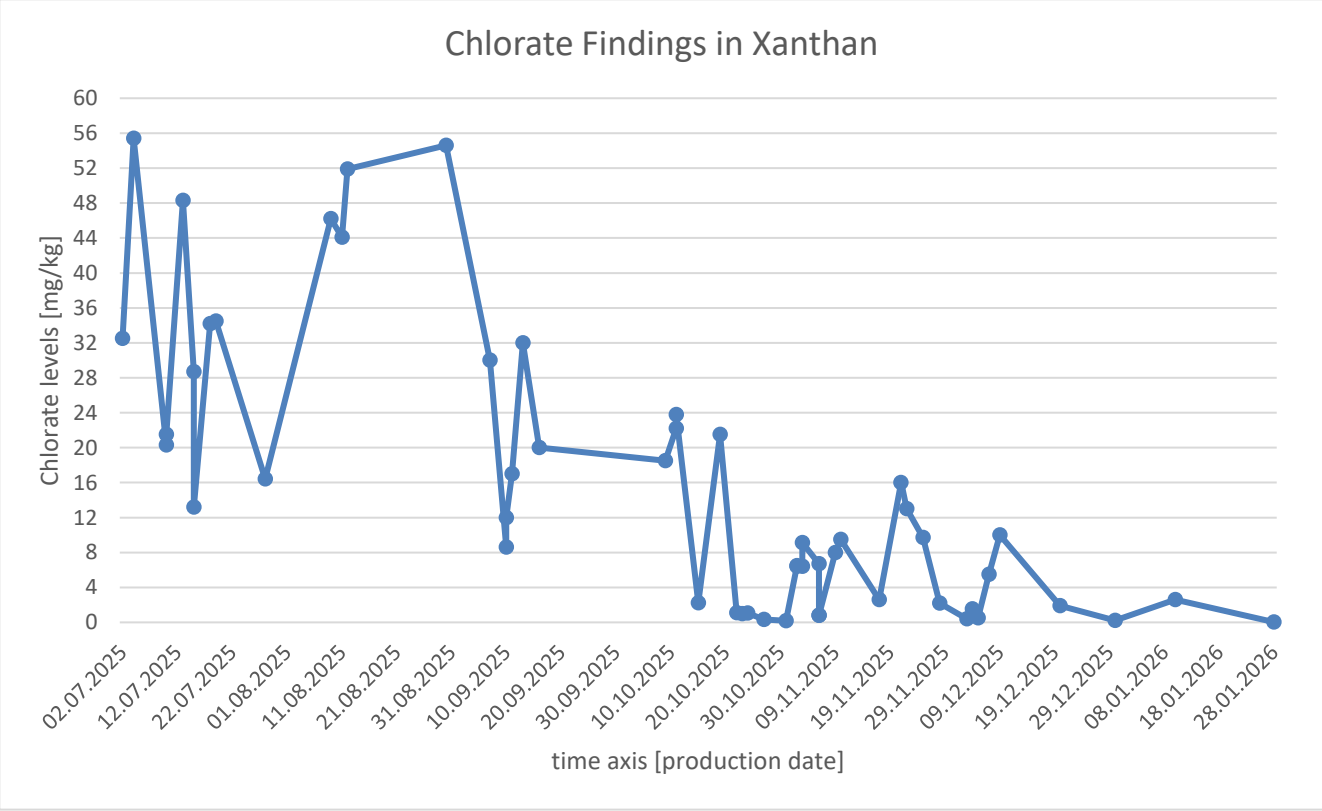

Figure 1: Chlorate levels in xanthan from 29 June 2025 to 28 January 2026.

The available analytical data on chlorate levels in xanthan clearly show that process modifications have enabled a continuous reduction in chlorate findings. The measured values decreased from a **maximum of 55.4 mg/kg chlorate** in the production batch of 4 July 2025 to a minimum of **0.03 mg/kg** in the batch of **28 January 2026**. This trend indicates a clear move toward lower chlorate levels.

In addition, Chinese manufacturers state that newly produced batches comply with the SCoPAFF-proposed limit of 0.1 mg/kg. The relevant newly produced batches are currently either in production or in export storage, and analyses are still pending. However, based on the submitted measurement data, it can be inferred that the most recently analysed batch, with a measured chlorate level of 0.03 mg/kg, is compliant with the proposed SCoPAFF maximum level.

Conclusions and recommendations

- EFSA should conduct a **targeted scientific assessment** of xanthan manufacture in order to clarify the formation of chlorate, the process steps concerned, and the question of risk-based maximum levels.
- Chlorate exposure from xanthan should be reassessed on the basis of realistic use levels and in relation to **toxicological reference values**.
- Manufacturing improvements already implemented have **significantly reduced chlorate formation**, as shown in Figure 1.
- Batches already imported or currently in transit should not be subject to recall or rejection, but should instead be evaluated on a **case-by-case toxicological basis**.
- Chlorate residues in xanthan are highly likely to be attributable to process-related side reactions and therefore fall under the Union-law definitions of **processing aids and process contaminants**, and should be assessed as such.

Vereinigung der am Drogen- und Chemikalien-
Groß- und Außenhandel beteiligten Firmen e.V. (VDC)

Association of Firms engaged in Wholesale and Foreign Trade in Drugs and Chemicals

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