



Statement as regards the presence of perchlorate in food endorsed by the Standing Committee on Plants, Animals, Food and Feed on 10 March 2015, updated on 23 June 2015

Background information

The perchlorate ion (ClO_4^-) is very stable in water, and its salts are highly soluble in water. Perchlorate occurs naturally in the environment, in deposits of nitrate and potash, and can be formed in the atmosphere and precipitate into soil and groundwater. It also occurs as an environmental contaminant arising from the use of nitrate fertilizers and from the manufacture, use and disposal of ammonium perchlorate used in rocket propellants, explosives, fireworks, flares and air-bag inflators and in other industrial processes. Perchlorate can also be formed during the degradation of sodium hypochlorite used to disinfect water and can contaminate the water supply. Water, soil and fertilizers are considered to be potential sources of perchlorate contamination in food.

Need for more monitoring data

There is a need for having more data on the presence of perchlorate in food. In particular, there are not sufficient occurrence data on the presence of perchlorate in food sampled after 1 September 2013 as it is considered that then mitigation measures were from then onwards put in place and these data might reflect the principle “as low as reasonable achievable” following good practices. More occurrence data on the presence of perchlorate are also needed to enable a more accurate exposure assessment.

So therefore Member States, with the active involvement of food business operators, are requested to monitor the presence of perchlorate in food and this in accordance with Commission Recommendation (EU) 2015/682 of 29 April 2015 on the monitoring of the presence of perchlorate in food (<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1434527808532&uri=CELEX:32015H0682>)

The following method of analysis has been identified to provide reliable results:

"Quick Method for the Analysis of Residues of numerous Highly Polar Pesticides in Foods of Plant Origin involving Simultaneous Extraction with Methanol and LC-MS/MS Determination (QuPPE-Method) - Version 7.1" The method can be downloaded from: http://www.crl-pesticides.eu/library/docs/srm/meth_QuPPE.pdf

In addition the article "Analysis of Perchlorate in Food Samples of Plant Origin Applying the QuPPE-Method and LC-MS/MS" has to be consulted in which it is reported how to integrate the environmental contaminant perchlorate into the abovementioned QuPPE multiresidue method. The article can be downloaded from <http://www.analytic-news.com/papers/pdf/cvuase2.pdf>

The Limit of Quantification (LOQ) should be targeted not be higher than 2 µg/kg for the analysis of perchlorate in foods for infants and young children, 10 µg/kg in other foods and 20 µg/kg in dried herbs and spices and dried herbs and tea for infusion.

Sampling is to be performed in accordance with current sampling procedures in place to control the level of nitrates in leafy vegetables and pesticide residues in food.

Investigations on the sources of contamination and related mitigation measures

Member States, with the active involvement of the food business operators, should perform investigations to identify the factors resulting in the presence of perchlorate in food. In particular, the analysis of the presence of perchlorate in fertilizer, soil, irrigation and processing water is appropriate in situations where these factors are relevant.

A harmonised provisional enforcement approach for intra-Union trade

Divergent approaches as regards the issue of perchlorate in fruits and vegetables have resulted in problems/tensions in intra-Union trade and therefore a harmonised enforcement approach was appropriate. This harmonised enforcement approach should take into account the consumer health protection and what is feasible and achievable taking also into account good practices and regional differences.

The provisional enforcement approach is to address problems and possible tensions in intra-Union trade. Competent authorities of Member States can determine to which extent they enforce the levels of perchlorate as reference for intra-Union trade for their domestic production / products placed on their domestic market. The competent authorities of the Member States agreed not to take action below these levels. For taking action, measurement uncertainty has to be taken into account and the level as reference has to be beyond reasonable doubt exceeded, taking into account the correction for recovery and measurement uncertainty.

The revised levels as reference for intra-Union trade, provided in the table hereafter, are based upon available occurrence data obtained after September 2013. The provisional enforcement approach is provisional awaiting the availability of more data on the occurrence of perchlorate in food, following the recommendation to monitor the presence of perchlorate in food (see above)

These revised levels as reference for intra-Union trade are of application as from 16 March 2015, except for herbal and fruit infusions which are of application as from 1 July 2015, and the levels agreed at the Committee on 16 July 2013 are no longer valid.

Levels of perchlorate as reference for intra-Union trade

FOOD (*)	level (mg/kg) (*)
Fruits and vegetables	0,1
with the exception of	
- <i>Cucurbitaceae</i> and leafy vegetables except	0.2
- - celery and spinach grown in glasshouse/undercover	0.5
- - herbs, lettuce and salad plants, including rucola, grown in glasshouse/under cover	1.0
Dried spices (except dried herbs and paprika), dried hops	0,5
Tea (<i>Camellia sinensis</i>), dried	0,75
Herbal and fruit infusions, dried	0.75
Foods for infants and young children - ready-to-eat	0,02
Other food	0,05

(*) - The levels as reference values for intra-Union trade applies, insofar not specified, to the unprocessed food. For dried, diluted, processed and compound foodstuffs, Article 2 of Regulation (EC) 1881/2006 is of application.

- The levels as reference values shall apply to the edible part of the food concerned.

- The leafy vegetables grown in glasshouse/under cover have to be labelled as such (or be reasonably demonstrated as being from such production in case of non-compliance with the specific level for open air production) for the application of the specific level as reference value established for the leafy vegetables grown in glasshouse/ under cover. In the absence of such a labelling (or subsequent proof of origin), the levels as reference values for intra-Union trade established for leafy vegetables grown in the open air shall apply.