



## **Statement as regards the presence of perchlorate in food agreed by the Standing Committee of the Food Chain and Animal Health on 16 July 2013**

### **Background information**

The perchlorate ion ( $\text{ClO}_4^-$ ) 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.

### **EFSA risk assessment**

EFSA has been requested by the European Commission to deliver a scientific opinion on the risk for public health as the consequence of the presence of perchlorate in food and in fruits and vegetables in particular.

The opinion should address the acute and chronic health effects and assess acute and chronic health risks for specific vulnerable groups of the population, following dietary exposure.

The opinion is expected to be available by December 2013.

### **Need for more monitoring data**

There is a need for having more data on the presence of perchlorate in food and in particular in fruits and vegetables across the EU. So therefore Member States, with the active involvement of food business operators, are requested to monitor the presence of perchlorate in food in particular in fruits and vegetables, especially leaf vegetables, fresh herbs and celery grown in glasshouse/under cover.

The following method 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 "

The method can be downloaded from:

[http://www.crl-pesticides.eu/library/docs/srm/meth\\_QuPPE.pdf](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://ejournal.cvuas.de/>.

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**

Furthermore it is important to continue the investigations on the cause of contamination of the increased levels of perchlorate. Certain fertilizers have already been identified as possible source but it is important to have a full overview of the possible causes and their relative importance as regards the findings of the increased levels of perchlorate in fruits and vegetables (and other foods). Also mitigation measures need to be identified.

## **A harmonised provisional enforcement approach for intra-Union trade for the period awaiting the availability of the EFSA opinion**

The provisional enforcement approach is based upon available scientific risk assessments (international and national) and available occurrence data. The provisional enforcement approach is provisional awaiting the EFSA scientific risk assessment as regards the risk for public health as the consequence of the presence of perchlorate in food, in particular fruits and vegetables.

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 is appropriate. This harmonised enforcement approach should provide a sufficient consumer health protection whilst taking into account what is feasible and achievable taking into account good practices and regional differences.

A particular problem was identified with the production of leaf vegetables/fresh herbs/celery in glasshouses where the use of certain fertilizers in the past (before the problem was known) has resulted in an accumulation of perchlorate in the soil which cannot not be leached out on the short term and which is resulting in higher levels in leaf vegetables grown in glasshouses. Appropriate risk management measures should be taken for this segment of vegetables to reduce the presence of perchlorate.

The provisional enforcement approach is to address existing problems and tensions in intra-Union trade and is considered to be sufficient health protective. Given the divergence of views as regards the possible risk for public health awaiting the EFSA opinion, competent authorities of Member States can determine to which extent they enforce the provisional enforcement levels 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.

However, in view of a possible Union legislation following the EFSA opinion, all Member States are requested to monitor the presence of perchlorate in food, in particular fruits and vegetables and to perform investigations as regards the sources of the presence of perchlorate in food (see above).

### **Levels of perchlorate as reference for intra-Union trade**

\* all food / fruits and vegetables 0.5 mg/kg

with the exception of:

\* citrus fruits, pome fruit, root and tuber vegetables, table grapes, spinach, melons and watermelons 0.2 mg/kg

\* leaf vegetables (except spinach), fresh herbs and celery – grown in glasshouses/under cover 1.0 mg/kg

These levels are valid until the availability of the EFSA opinion (December 2013) and the topic perchlorate will be on the agenda of every meeting of the Expert Committee "Industrial and Environmental Contaminants" to discuss the occurrence data, outcome of the investigations on the source of contamination and the applicable mitigation measures.