

Perchlorate – Questions and Answers

Perchlorate occurs naturally in the environment in deposits of nitrate and potash and also as a result of anthropogenic activities such as 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.

What is the problem?

Perchlorate is very stable in water and its salts are highly soluble in water, as a result of which, perchlorate can be found in a wide range of foods. Fruit and vegetable crops including those grown in glasshouses/under cover are particularly susceptible to contamination due to the uptake of perchlorate from soil and water during growth and deposition of perchlorate from the atmosphere onto leafy surfaces and fruits.

This is not a new risk and it is possible people have been exposed to perchlorate in their diet for many years.

What do we know about perchlorate and its health risks?

Perchlorate can occur in a wide range of foods, including fruits, vegetables, spices, teas, milk and dairy products. Perchlorate can inhibit the uptake of iodine in the thyroid gland. Sustained exposure can lead to a condition known as hypothyroidism and possible development of goitre normally associated with severe iodine deficiency as a result of insufficient iodine intake.

What is the Agency doing about perchlorate levels in food?

In addition to discussing the issue of perchlorate in food at EU level and consulting with a wide range of stakeholders from industry, the Agency funded a two year research study on the levels of perchlorate in a wide range of UK consumed foods.

Should I stop eating foods that are likely to contain perchlorate?

The Agency does not advise people to stop eating foods likely to contain perchlorate, rather you should follow Department of Health advice from the NHS Choices website on eating a healthy, balanced diet.

What about the food industry?

The Agency is working with stakeholders, including the food industry, to increase awareness, knowledge and understanding of perchlorate in food. The food industry is also carrying out their own research and monitoring to obtain further data on the levels of perchlorate in food.

What's being done internationally?

Member states across Europe are working with food business operators to monitor for the presence of perchlorate in food and send their results to the European Food Safety Authority (EFSA).

EFSA's scientific opinion on perchlorate in food concluded that while chronic dietary exposure to perchlorate is of potential concern, a single acute exposure to perchlorate at levels found in food is unlikely to cause adverse effects on human health.

Are there any limits set for perchlorate in food?

There are currently no regulatory maximum limits for perchlorate in food. However, the European Commission (EC) has introduced 'reference' or provisional enforcement levels of perchlorate for those food groups considered to contribute the most to dietary exposure. Where the level of perchlorate for a product is found to exceed its reference or provisional enforcement level, local authority investigating officers will gather information and data from the food business operator and inform the Agency accordingly who will carry out a risk assessment.

It is possible that maximum limits for perchlorate in food may be proposed sometime in the future.