

Chlorate / Perchlorate

Introduction

In 2020, there was a change in legislation for Chlorate and Perchlorate in milk, water, dairy products and infant formula, among other products. The controlling authorities such as the NVWA will increasingly monitor these parameters. You will be asked to show that you comply with this legislation.

Qlip can perform these tests for you. As a specialised and accredited dairy laboratory, we are at your service! Through this info sheet you will receive more information on this analysis.

Risk

Chlorate and Perchlorate are contaminants. Contaminants can occur in food and beverages and pose a risk to public health (thyroid problems). The European Food Safety Authority (EFSA) states that consumer exposure to these contaminants can impair iodine absorption, especially for infants and toddlers.

Contamination

Use of cleaning and disinfection agents with chlorine-containing components with insufficient rinsing constitutes the main contamination route for chlorate. Contamination of (raw) milk and dairy products can occur both on the dairy farm and in the dairy plant. It can possibly also occur via used ingredients and additives.

Perchlorate is present in soil and groundwater, mainly through the use of fertilisers and industrial emissions. They reach the cow via roughage and livestock drinking water and are also transferred to the (raw) milk via that route to a small extent.

Laws and regulations

For **Chlorate**, Maximum Residue Limits (MRLs) have been in force since 28 June 2020. According to EC Regulation 2020/749, a maximum residue level of 0.1 mg/kg applies to milk (all animal species).

As of 1 July 2020, maximum levels for **Perchlorate** are specified in Annex 9 of EC Regulation 2020/685. From 25 May 2023 this is included in EU Regulation 2023/915.

For reconstituted dairy products such as infant formulae, follow-on formulae, food for special medical purposes intended for infants and young children and young child formulae, a maximum residue level of 0,01 mg/kg applies. For reconstituted baby food, it is 0,02 mg/kg.

Chloraat en Perchloraat onderzoek

Qlip can perform these accredited analysis in its own, accredited laboratory for you in (raw) milk and dairy products. With this test, we can help you to prove whether your products meet the set limits. With the results, you can assess whether the right cleaning and disinfecting agent has been used and the rinsing of equipment and hoses has been done properly.

We can perform these Chlorate and Perchlorate tests for you both at the beginning of the production process (in the raw milk) and in the final product.

Any further questions?

Do you still have any questions, please do not hesitate to contact our sales department at sales@qlip.nl or +31 88-7547199.

Your benefits:

- Monitoring Chlorate and Perchlorate in accordance with EC regulations 2020/749 and 2023/915
- Demonstrating food safety
- Monitoring of cleaning and disinfection methods
- Monitoring Raw Material
- Reliable analysis results through validated techniques
- Use of Qlip's specialized knowledge

Testspecifications

Article code: CE3220e (under accreditation)

Matrices and detectionlimits:

raw cowmilk and raw goatmilk:
Chlorate: 0,002 mg/kg
Perchlorate: 0,002 mg/kg

wheypowder, concentrated whey milkpowder, goatmilkpowder, cream, lactose and infant formula:

Chlorate: 0,01mg/kg
Perchlorate: 0,01 mg/kg

water:
Chlorate: 2µg/l
Perchlorate: 2µg/l

Method:

quantitative analysismethod LC-MS/MS

Turnaround time analysis:

10 workdays after receiving samples

Sample quantity:

50 gram or 50 ml

Qlip

The analyses performed under ISO 17025:2017 accreditation at Qlip are listed on the RVA site.