Technical Datasheet

Analysis Name: Chlorate and Perchlorate by LC-MS/MS

Method Number: LI-00.043

Scope of Application: This method has been validated for mango puree, baby apple puree, broccoli, vegetable and fruit baby food, liquid whey (high water content), infant formula, milk powder, yoghurt (milk based product), chemical salts (high salt contents), chicken (meat), dried beetroot and eggs (high starch and/or protein content and low water and fat content), dried plum, honey and concentrated apple juice (high sugar and low water content), rice based cereals, wheat flour, pasta (high starch and low water content), canola oil (high fat content), turmeric and cocoa (difficult or unique commodities), and gummy matrices.

Additionally, the method was tested in matrices belonging to several commodity groups to check its performance, such as orange crunchiest (high acid content), wheat flour (high starch content), maltodextrin, apricot flakes, apple crunchiest (high sugar and low water content) palm oil (high fat content), chicken meat powder (meat), milo powder (high starch and/or protein content and low water and fat content), turmeric, clove, chili, cumin and green tea (difficult or unique commodities).

Description: An in-house method for the quantitative determination of chlorate and perchlorate in food by liquid-chromatography tandem mass-spectrometry (LC-MS/MS)

Sample Weight Required: 100 g

Analytical Platform: LC-MS/MS

Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
Chlorate		mg/kg	0.010 mg/kg	< 55%
Perchlorate		mg/kg	0.010 mg/kg	< 30%