neotron
Part of the Cotecna Group

Determination of glycoalkaloids residues in potatoes and potato-derived products

Many plants in the Solanaceae family contain glycoalkaloids and they are considered to be natural toxins.[3] The plant glycoalkaloids are toxic steroidal glycosides and the most relevant to food safety are those occurring in the potato: α-solanine and α-chaconine, consisting of the aglycone solanidine and chacotriose and solatriose as oligosaccharide side chains, respectively.[2, 3]

In humans, α-chaconine and α-solanine are systemically absorbed following ingestion and they can produce gastrointestinal side effects such as nausea, vomiting and diarrhoea.[2]

In April 2022 the European Commission published the **Commission Recommendation (EU) 2022/561 of 6 April 2022** on monitoring the presence of glycoalkaloids in potatoes and potato-derived products.[1]

Pay specific attention to the following extract of the Recommendation (EU) 2022/561:
Member States, with the active involvement of food business operators, should carry out investigations to identify the factors leading to levels above the indicative level of 100 mg/kg as sum of α-solanine and α-chaconine in potatoes and processed potato products.[1]

Neotron proposal

Neotron performs the analysis of glycoalkaloids by LC-MS/MS technique, permitting to detect the residues of α-solanine and α-chaconine in potatoes and processed potato products with a limit of quantification of 1,0 mg/kg.

This method is in compliance with Commission Recommendation (EU) 2022/561 of 6 April 2022.

For more information please contact us @www.neotron.it

References:

1. Commission Recommendation (EU) 2022/561 of 6 April 2022 on monitoring the presence of glycoalkaloids in potatoes and potato-derived products.
2. Risk assessment of glycoalkaloids in feed and food, in particular in potatoes and potato-derived products, EFSA Panel on Contaminants in the Food Chain, EFSA Journal **2020**; 18(8):6222.
3. Outcome of a public consultation on the draft risk assessment of glycoalkaloids in feed and food, in particular in potatoes and potato-derived products, EFSA Supporting publication **2020**: EN-1905.