



## Determination of opium alkaloids in foodstuffs

Poppy seeds are obtained from the opium poppy (*Papaver somniferum L.*). The opium poppy plant contains opium alkaloids such as morphine and codeine. Poppy seeds do not contain the opium alkaloids, or contain only very low levels, but can become contaminated with alkaloids as a result of insect damage, or through external contamination of the seeds during harvesting.<sup>1</sup>

Opium alkaloids have critical effects on the central nervous system.

In December 2021 the European Commission published the **Commission Regulation (EU) 2021/2142 of 3 December 2021** amending Regulation (EC) No 1881/2006 as regards maximum levels of opium alkaloids in certain foodstuffs.<sup>1</sup>

**Foodstuffs listed in the Annex, lawfully placed on the market before 1 July 2022, may remain on the market until their date of minimum durability or use-by-date.**<sup>1</sup>

Here following the new MRLs for opium alkaloids in certain foodstuffs (**Figure 1**):

	Foodstuffs	Maximum level (mg/kg)
8.5.	<b>Opium alkaloids (*)</b>	
8.5.1.	Whole, ground or milled poppy seeds placed on the market for the final consumer.	20
8.5.2.	Bakery products (**) containing poppy seeds and/or derived products thereof (***)	1,50

**Figure 1:** New MRLs for opium alkaloids in certain foodstuffs.<sup>1</sup>

(\*) The maximum level refers to the sum of morphine and codeine, for which a factor of 0,2 is applied to the level of codeine. Therefore, the maximum level refers to the sum of morphine + 0,2 codeine.

(\*\*) Bakery products include also flour-based ready-to-eat savouries and snacks.

(\*\*\*) The food business operator supplying the poppy seeds to the food business operator manufacturing the bakery products shall provide the necessary information to enable the manufacturer of the bakery products to place products on the market that comply with the maximum level. This information shall include analytical data, where appropriate.

### Neotron proposal

Neotron performs the analysis of opium alkaloids by LC-MS/MS technique, permitting to detect the residues with an accredited method in compliance with Commission Regulation (EC) 2021/2142 of 3 December 2021, that shall apply from 1 July 2022.

### References:

1. Commission Regulation (EU) 2021/2142 of 3 December 2021 amending Regulation (EC) No 1881/2006 as regards maximum levels of opium alkaloids in certain foodstuffs.
2. Update of the Scientific Opinion on opium alkaloids in poppy seeds, EFSA Panel on Contaminants in the Food Chain, EFSA Journal 2018; 16(5):5243.

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