

## INFO SHEET

### Patulin

Patulin can be formed on several products with fruit (especially the brown rotting spots on apples and pears), dairy products and bostel as the most important ones.

Taking in consideration the way of producing foods, the way of consuming etc. one can say, with exception of some products, that patulin is not a very big problem for the human health.

#### Method description

##### Extraction

###### i) Products and plants

The patulin is set free with the aid of an enzyme (pectinase) and extracted with water.( SMT-CT96-2045).

##### Analysis

The obtained extract is analysed by means of a liquid chromatograph with double in-line mass spectrometers (LC-MSMS).

##### Quality control of method of analyzing.

The extraction is checked with an analyt-containing reference sample and by spiking samples.

Round Robin tests : FAPAS

#### Scope of Accreditation

Matrices : Appleproducts

#### Performance characteristics TLR

##### Reporting limits

Products	<10 ppb
Concentrates	<50 ppb

##### Repeatability and reproducibility

	RSDr	RSDR
10 -100 ppb	<15%	<20%
>100 ppb	<10%	<10%

##### Recovery:

Apple,apple-sauce	65 - 100%
Clear applejuice and concentrate	80 - 110%

**Literature**

1. ISO 8128-1:1993 Apple juice, apple juice concentrates and drinks containing apple juice – determination of Patulin content Part 1
2. Project SMT-CT96-2045: Validation of analytical methods to determine the content of Aflatoxine, Ochratoxin and Patulin in foodstuffs of vegetable origin
3. Liquid chromatographic method for determination of Patulin in clear and cloudy apple juices and apple puree: collaborative study, Journal of AOAC International, Vol. 83, No. 6, 2000, pages 1387-1394

