

Dried Mixed Vegetables - Control Material

Art. ID	IC-CS-V-1
Unit	20 g
Deliverydetails	No Dangerous Good /not restricted

Description

Description of material: As the raw material, the vegetables from the east of Poland has been chosen. Four types of vegetables were selected: garlic, sweet pepper, spinach and celery root (1:1:1:1). Vegetables were cleaned, cut to smaller parts and dried according to standard procedure used by food concentrate producers. Dried vegetables were milled in a mill made of stainless steel and sieved through a stainless sieves. The fraction of particles with diameter $d \leq 1,0$ mm was collected. The obtained material was further homogenized by mixing in a plastic drum rotated in three directions, distributed into amber glass bottles in portion of ca. 20 g and firmly covered. Care was taken to avoid contamination. The material was then sterilized by electron beam radiation from linear accelerator with dose of 28 kGy. Homogeneity was examined for the sample size of 250 mg for each of element certified i.e. As, Cr, Cd, Cu, Hg, Pb, Se and Zn. Statistical evaluation has been performed following ISO 13528:2015 standard recommendations. Good homogeneity of the material was confirmed for sample masses ≥ 250 mg.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
reference value, dry ma ss	Arsenic (As)	[7440-38-2]	0,112 ± 0,005	mg/kg		
reference value, dry ma ss	Cadmium (Cd)	[7440-43-9]	0,51 ± 0,03	mg/kg		
reference value, dry ma ss	Chromium (Cr)	[7440-47-3]	1,54 ± 0,16	mg/kg		
reference value, dry ma ss	Copper (Cu)	[7440-50-8]	8,29 ± 0,39	mg/kg		
reference value, dry ma ss	Mercury (Hg)	[7439-97-6]	<0,03	mg/kg		
reference value, dry ma ss	Lead (Pb)	[7439-92-1]	0,25 ± 0,08	mg/kg		
reference value, dry ma ss	Selenium (Se)	[7782-49-2]	0,06 ± 0,006	mg/kg		
reference value, dry ma ss	Zinc (Zn)	[7440-66-6]	37,6 ± 1,5	mg/kg		