

Microelements In Dried Mixed Spices

Art. ID	IC-CS-S-1
Unit	25 g
Deliverydetails	No Dangerous Good /not restricted

Description

Description of material: As the raw material, the spices and herb spices were bought at the food market in Poland. Four types of spices were selected: bay leaves, ginger, cumin and chili (1:1:1:1). The spices 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. 25 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, Fe, Hg, Mn, Mo, 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]	$0,148 \pm 0,03$	mg/kg		
reference value, dry ma ss	Cadmium (Cd)	[7440-43-9]	$0,116 \pm 0,013$	mg/kg		
reference value, dry ma ss	Chromium (Cr)	[7440-47-3]	$2,03 \pm 0,22$	mg/kg		
reference value, dry ma ss	Copper (Cu)	[7440-50-8]	$7,94 \pm 0,39$	mg/kg		
reference value, dry ma ss	Iron (Fe)	[7439-89-6]	264 ± 28	mg/kg		
reference value, dry ma ss	Mercury (Hg)	[7439-97-6]	$8,1 \pm 1,5$	mg/kg		
reference value, dry ma ss	Manganese (Mn)	[7439-96-5]	$86,7 \pm 8,7$	mg/kg		
reference value, dry ma ss	Molybdenum (Mo)	[7439-98-7]	$0,475 \pm 0,025$	mg/kg		
reference value, dry ma ss	Lead (Pb)	[7439-92-1]	$0,515 \pm 0,088$	mg/kg		
reference value, dry ma ss	Selenium (Se)	[7782-49-2]	$58,2 \pm 9,6$	mg/kg		
reference value, dry ma ss	Zinc (Zn)	[7440-66-6]	$31,2 \pm 2,4$	mg/kg		