

Amount of substance, organic solutions, Russian Federation, VNIIM (All-Russian D.I. Mendeleyev Research Institute for Metrology, Rosstandart)

Uncertainty convention 1: the expanded uncertainty range spans from the smallest numerical value of the uncertainty to the largest numerical value of the uncertainty found within the quantity range.

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NMI Service Identifier	Measurement Service Sub-Category	Matrix	Measurand		Dissemination Range of Measurement Capability			Range of Expanded Uncertainties as Disseminated				Range of Certified Values in Reference Materials			Range of Expanded Uncertainties for Certified Value				Mechanism(s) for Measurement Service Delivery	Comments	
			Analyte or Component	Quantity	From	To	Unit	From	To	Unit	Is the expanded uncertainty a relative one?	From	To	Unit	From	To	Unit	Is the expanded uncertainty a relative one?			
3.1-org01	PAHs	multicomponent organic solution	phenanthrene	Mass fraction	1	10	µg/g	2	1	%	Yes								calibration	Uncertainty convention 2	Approved on 11 September 2006
3.1-org02	PAHs	multicomponent organic solution	benz(a)anthracene	Mass fraction	1	10	µg/g	3	2	%	Yes								calibration	Uncertainty convention 2	Approved on 11 September 2006
3.1-org03	PAHs	multicomponent organic solution	benz(a)pyrene	Mass fraction	1	10	µg/g	3	2	%	Yes								calibration	Uncertainty convention 2	Approved on 11 September 2006
3.1-org04	PAHs	multicomponent organic solution	benz(g,h,i)perylene	Mass fraction	1	10	µg/g	4	2	%	Yes								calibration	Uncertainty convention 2	Approved on 11 September 2006
3.1-org05	PAHs	multicomponent organic solution	fluoranthene	Mass fraction	1	10	µg/g	3	2	%	Yes								calibration	Uncertainty convention 2	Approved on 11 September 2006
3.3-org01	Pesticides	solvent	alpha-HCH	Mass concentration	0.05	100	µg/cm ³	3	12	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.002 (GSO 7686-99)	Uncertainty convention 1	
3.3-org02	Pesticides	solvent	beta-HCH	Mass concentration	0.05	100	µg/cm ³	3	10	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.003 (GSO 7687-99)	Uncertainty convention 1	
3.3-org03	Pesticides	solvent	gamma-HCH	Mass concentration	0.05	100	µg/cm ³	3	12	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.004 (GSO 7688-99)	Uncertainty convention 1	
3.3-org04	Pesticides	solvent	aldrin	Mass concentration	0.05	100	µg/cm ³	3	10	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.001 (GSO 7685-99)	Uncertainty convention 1	
3.3-org05	Pesticides	solvent	heptachlor	Mass concentration	0.05	100	µg/cm ³	3	10	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.005 (GSO 7689-99)	Uncertainty convention 1	
3.3-org06	Pesticides	solvent	p,p'-DDE	Mass concentration	0.05	100	µg/cm ³	3	12	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.008 (GSO 7692-99)	Uncertainty convention 1	
3.3-org07	Pesticides	solvent	p,p'-DDT	Mass concentration	0.05	100	µg/cm ³	3	10	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.009 (GSO 7693-99)	Uncertainty convention 1	
3.3-org08	Pesticides	solvent	o,p'-DDD	Mass concentration	0.05	100	µg/cm ³	3	10	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.006 (GSO 7690-99)	Uncertainty convention 1	

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			Analyte or Component	Quantity	From	To	Unit	From	To	Unit	Is the expanded uncertainty a relative one?	From	To	Unit	From	To	Unit	Is the expanded uncertainty a relative one?			
3.3-org09	Pesticides	solvent	p,p'-DDD	Mass concentration	0.05	100	µg/cm ³	3	10	%	Yes	95	105	µg/cm ³	3	3	%	Yes	PRM SM 08.01.007 (GSO 7691-99)	Uncertainty convention 1	
3.3-org10	Pesticides	multicomponent organic solution	4,4-DDE	Mass fraction	10	500	ng/g	2	1	%	Yes									Uncertainty convention 2	Approved on 11 September 2006
3.3-org11	Pesticides	multicomponent organic solution	4,4-DDT	Mass fraction	10	500	ng/g	2	1	%	Yes									Uncertainty convention 2	Approved on 11 September 2006
3.3-org12	Pesticides	multicomponent organic solution	lindane	Mass fraction	10	500	ng/g	3	1	%	Yes									Uncertainty convention 2	Approved on 11 September 2006
3.3-org13	Pesticides	multicomponent organic solution	trans-nonachlor	Mass fraction	10	500	ng/g	6	2	%	Yes									Uncertainty convention 2	Approved on 11 September 2006
3.4-org01	Organic solutions. Other	aqueous solutions	ethanol	Mass concentration	0.1	60	mg/cm ³	0.5	0.5	%	Yes	0.1	6	mg/cm ³	0.5	0.5	%	Yes	PRM SM 07.22.001	Uncertainty convention 2	Approved on 12 June 2013

 The expanded uncertainties correspond to $k = 2$ (level of confidence 95%)

Amount of substance, organic solutions, Russian Federation, UNIIM (Ural Scientific and Research Institute for Metrology, Rosstandart)

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			Analyte or Component	Quantity	From	To	Unit	From	To	Unit	Is the expanded uncertainty a relative one?	From	To	Unit	From	To	Unit	Is the expanded uncertainty a relative one?		
3.2-01	PCBs	multi-components	PCB 52	Mass concentration	0.01	1.00	mg/ml	10	5	%	Yes	0.02	0.1	mg/ml	5	7	%	Yes	GSO (RF) 7821-2000	Uncertainty convention 2
			PCB 101		0.01	1.00	mg/ml	10	5	%	Yes	0.02	0.1	mg/ml	5	7	%	Yes		
			PCB 138		0.01	1.00	mg/ml	10	5	%	Yes	0.02	0.1	mg/ml	5	7	%	Yes		
			PCB 152		0.01	1.00	mg/ml	10	5	%	Yes	0.02	0.1	mg/ml	5	7	%	Yes		
			total of tetra-, penta-, hexa-chlorinated		0.01	1.00	mg/ml	10	5	%	Yes	0.02	0.1	mg/ml	5	7	%	Yes		

The expanded uncertainties correspond to $k = 2$ (level of confidence 95%)

Note: The work has been done in cooperation with IOS Uro RAN (Organic Synthesis Institute of the Ural Branch of the Russian Academy of Sciences)