



0423

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ISO/IEC 17025:2005

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Measured quantity	Range	Expanded uncertainty (k = 2)	Method principle
Forensic alcohol standards	20 mg/100ml to 600 mg/100ml	0.6 mg/100ml	Dichromate titration
Purity of organic materials	90% to 100%	0.2 to 1.1 % m/m	QNMR
	98.5% to 100%	0.4 % m/m	GC-FID
	98.5% to 100%	0.4 % m/m	HPLC-DAD
	97% to 100%	0.3 % m/m	DSC
Purity of organic standards	% m/m water	0.12 %	TGA-MS
	% m/m volatile organics	0.28 %	
	% m/m inorganic residue	0.22 % m/m	
Water content	0.03 mg H <sub>2</sub> O to 0.10 mg H <sub>2</sub> O	1.2 relative	Oven coulometric Karl Fischer titration
	0.1 mg H <sub>2</sub> O to 5.0 mg H <sub>2</sub> O	0.8 relative	
	5.0 mg H <sub>2</sub> O to 11.0 mg H <sub>2</sub> O	0.6 relative	
Apparent density in air at 20 °C of alcohol/water mixtures	788 kg/m <sup>3</sup> to 997.15 kg/m <sup>3</sup>	0.06 kg/m <sup>3</sup>	Piknometry
	Corresponding to		
	100 % to 0% alcohol by volume		
Pure substance melting point	40 °C to 250 °C	0.17 °C to 0.27 °C	Oil bath