

Certified reference material for hydroalcoholic solutions

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Having a certified reference material (CRM) allows you to calibrate and verify your calibration and verification systems or to control and validate your breathalyser production. LNE can now provide you with a certified reference material for hydroalcoholic solutions.

Cofrac accreditation (accreditation no. 2-2031, scope available on www.cofrac.fr) according to the international standard NF EN ISO 17034 - General requirements for the competence of reference material producers.



Accreditation
N°2-2031
Scope available
on www.cofrac.fr

WHAT A CRM BRINGS YOU:

- The various constituents introduced are determined by means of measuring devices traceable to the international system
- This certified reference material can be used for the calibration, verification or production control of breathalysers
- Shelf life of the material is 4 months after the date of manufacture (closed bottle)
- The validity period of the material is 30 days after the date of opening the bottle (not repackaged)
- The certified reference material must be stored at a temperature of $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$
- The certified reference material can be transported (in its original packaging) at temperatures between -50°C and 50°C
- The concentration and associated uncertainty of the CRM is given in a reference material certificate
- The concentration is expressed in g/L (concentration of ethanol in water)

DESCRIPTION

The solutions are produced by volumetric method by mixing a mass of ethanol in permuted water. The gravimetric concentration of the reference material is validated by means of a suitable analytical method (by chromatography).

Materials / Matrix	Concentration of ethanol in water	Expanded uncertainty * (k=2)	Packaging	Shelf life
Hydroalcoholic solutions: Ethanol/Water	$0,1286 \text{ g/L} \leq \gamma\text{H}_2\text{O} \leq 0,2573 \text{ g/L}$	$(0,78\% * \gamma\text{H}_2\text{O} + 0,0011) \text{ g/L}$	1L or 5L bottle	4 months (closed bottle) 30 days after opening (not repackaged)
	$0,2573 \text{ g/L} < \gamma\text{H}_2\text{O} \leq 1,0292 \text{ g/L}$	$(0,74\% * \gamma\text{H}_2\text{O} + 0,0002) \text{ g/L}$		
	$1,0292 \text{ g/L} < \gamma\text{H}_2\text{O} \leq 3,088 \text{ g/L}$	$(0,61\% * \gamma\text{H}_2\text{O} + 0,0023) \text{ g/L}$	1L bottle	
	$3,088 \text{ g/L} < \gamma\text{H}_2\text{O} \leq 7,719 \text{ g/L}$	$(0,62\% * \gamma\text{H}_2\text{O} + 0,004) \text{ g/L}$		

$$\gamma\text{H}_2\text{O} = \text{Concentration of the hydroalcoholic solution (g/L)}$$

* The expanded uncertainties are twice the combined standard uncertainty. The standard uncertainties were calculated taking into account the different sources of uncertainty such as those related to the production, homogeneity and stability of the CRM.

A specialised and dedicated sales team is at your service

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