

Reference material for hydroalcoholic solutions

Having Reference Materials (RM) allows you to validate and control your breathalyser production. LNE can provide you with a reference material of hydroalcoholic solutions.

WHAT A RM BRINGS YOU:

- The various constituents introduced are determined by means of measuring devices traceable to the international system.
- This reference material can be used for the production control of breathalysers.
- Shelf life of the material is 4 months after the date of manufacture (closed bottle).
- This material should be stored at a temperature of $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$.
- The concentration and associated uncertainty of the RM is given in a calibration certificate.
- The concentration is expressed in g/L (concentration of ethanol in water). As an indication, the concentration in mg/L (concentration of ethanol in air at 34°C) is indicated on the labels.

DESCRIPTION

The solutions are produced gravimetrically by mixing a mass of ethanol in permuted water. The gravimetric concentration of the reference material is validated by comparison with a reference solution.

Materials / Matrix	Concentration of ethanol in water	Expanded uncertainty * (k=2)	Packaging	Shelf life
Hydroalcoholic solutions: Ethanol/Water	$0,1930 \text{ g/L} \leq \gamma_{\text{H}_2\text{O}} \leq 5,146 \text{ g/L}$	$(0,78\% * \gamma_{\text{H}_2\text{O}} + 0,0011) \text{ g/L}$	1L or 5L bottle	4 months (closed bottle)

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

* 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 RM.

A specialised and dedicated sales team is at your service

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