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# Forensic alcohol analysis Proficiency testing schemes 2020-21

## NMISA-PT-60

# Determination of ethanol in aqueous medium

Issue date: 21 July 2020

## 1 FORWARD

Not only is it essential for laboratories and their customers to have ongoing confidence in their competence, but also for stakeholders such as regulators, laboratory accreditation bodies and other organisations. Proficiency testing schemes (PTS) may also be useful for laboratories wishing to internationally benchmark their measurement capabilities.

This scheme is operated by the National Metrology Institute of South Africa (NMISA) in accordance with ISO/IEC 17043: Conformity assessment – general requirements for proficiency testing.

The primary aim of the scheme is to enable laboratories which routinely determine ethanol in fluids to monitor and improve the quality of their measurements. The scheme also enables laboratories to demonstrate to the appropriate authorities the quality of their measurements.

## 2 THE SCHEME

The scheme will consist of three rounds. Three different concentration levels (between 0.01 g/ 100 g and 0.5 g/ 100 g) of aqueous ethanol in 25 ml bottles will be distributed approximately every three months.

From the data of previous schemes, the expected performance of the participating laboratories can be calculated. The expected performance levels are a guideline to assist the participants with quality control.

## 3 PARTICIPATION FEES AND ADDITIONAL CHARGES

The cost of participation in all three rounds of the PTS is 18 020.00 ZAR (0% VAT). The cost for participation in only one or two rounds is 6 300.00 ZAR (0% VAT) per round. This fee includes three bottles of three different ethanol concentrations per round. The materials are certified by an accredited titrimetric method. Up to four different participants per laboratory may submit results. The fee also includes one full report and one summary report (electronic) per round.

For delivery within the Republic of South Africa (RSA) the fee includes delivery.

***International laboratories will have test samples sent by courier and appropriately packaged to maintain sample integrity. International participants must provide NMISA with any import or quarantine permits that might be required to complete sample delivery well in advance of the shipment date and are liable for any customs or import duties charged.***

Upon registration for participation an official quotation will be provided.

#### 4 PROPOSED SCHEME DATES

No.	Sample distribution date	Deadline for result submission	Report date
1	25 August 2020	29 September 2020	14 October 2020
2	21 October 2020	25 November 2020	15 December 2020
3	22 January 2021	26 February 2021	17 March 2021

#### 5 OTHER IMPORTANT INFORMATION

It is very important that no special treatment be given to these samples and that the usual laboratory procedures must be used to analyse them. Up to four sets of results are to be submitted by each participating laboratory within approximately five weeks of receipt of the samples.

The large sample size will allow different analysts the opportunity to analyse the same solution and compare results.

Following the result deadline, the data will be processed according to ISO 13528:2015 (Statistical methods for use in proficiency testing by interlaboratory comparisons). A report will be issued to each participating laboratory. Reports will be provided in electronically format only as Adobe Acrobat (pdf) files.

The scheme is fully confidential. Each participating laboratory will be issued with a unique laboratory identification number, which will change for every round. Each laboratory is required to identify its analysts by a code known only to the laboratory. The participating laboratory will be required to put in place its own documentation pertaining to its numbering system and handling of the proficiency testing scheme.



Dominique Marajh  
Metrologist



Dr Maria Fernandes-Whaley  
Section Head: Organic Analysis

NMISA-PT-ORG60 AQUEOUS ETHANOL

## REGISTRATION FORM

 PLEASE COMPLETE AND RETURN BY E-MAIL TO [Dmarajh@nmisa.org](mailto:Dmarajh@nmisa.org)
**DEADLINE FOR REGISTRATION IS 18 August 2020**

Send Test Materials to:	Send PTS Report(s) to:	
Contact name:	Contact name:	
Department:		
Company:	E-mail:	
Address:	Select registration options: (mark with an ✓)	
Town/City:		
Postal code:	Round 1 only	<b>R 6 300.00</b>
	Round 2 only	<b>R 6 300.00</b>
Country:	Round 3 only	<b>R 6 300.00</b>
	Rounds 1, 2 and 3	<b>R 18 020.00</b>
FAX:	Delivery outside RSA	<i>Price determined by location</i>
E-mail:	Self-collection	

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 hereby confirm that a NMISA Customer Registration Information Form has been completed and submitted to NMISA for official quotation and invoicing. It is understood that registration for the proficiency testing scheme will only be confirmed upon receipt of a purchase order.

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 Signature

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 Date