



agriculture

Department:
Agriculture
REPUBLIC OF SOUTH AFRICA

CONTRACT NO.: 5/2/2/1(022)2025/2026

THE APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

ADDENDUM NO 1:

THIS DOCUMENT IS COMPILED BY:

**Department of Agriculture
Director Demand and Acquisition Management
600 Lilian Ngoyi Street,
Berea Park,
Pretoria
0001**

TEL: (012) 312 8375 / 8382 / 8395

FORM FOR RECEIPT OF ADDENDUM NO 1

NB This form for the receipt of Addendum No 1 must be completed by the Tenderer and returned immediately and separately to:

BenC@Nda.gov.za or mbulahenima@Nda.gov.za or Rashidag@Nda.gov.za alternatively can be hand delivered to:

**Department of Agriculture
600 Lilian Ngoyi Street,
Berea Park,
Pretoria
0001**

For attention: B Coetzer / F Maseli / R Goolam tel. +27 (0) 12 312 8375 / 8382 / 8395

**DEPARTMENT OF AGRICULTURE
5/2/2/1(022)2025/2026**

FOR

THE APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

I/We acknowledge receipt of Addendum No 1 and have noted its contents.

SIGNED ON BEHALF OF TENDERER

NAME OF SIGNATORY :

NAME AND ADDRESS OF TENDERER

.....

.....

.....

TEL NO :

FAX NO :

DATE :

DEPARTMENT OF AGRICULTURE

**5/2/2/1(022)2025/2026
FOR**

THE APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY-MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

ADDENDUM NO 1

FEBRUARY 2025

ISSUED BY:

**Department of Agriculture
Director Demand and Acquisition Management
600 Lilian Ngoyi Street,
Berea Park,
Pretoria
0001**

NAME OF TENDERER:

.....

5/2/2/1(022)2025/2026

FOR

THE APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

This Addendum forms part of the Tender Documents.

Each Tenderer for this Contract shall incorporate the following amendments and additions in his Tender.

Each Tenderer is required to acknowledge receipt and acceptance of the amendments and additions contained in this Addendum and to submit the completed and signed addendum with his Tender.

No pages may be removed from the Addendum.

ADDENDUM NO 1

- 1) Kindly note that the Annexure A column for comments included.
- 2) Paragraph 6.2 Uninterrupted Power Supply (UPS)
Suitable UPS system with battery backup time (minimum of 2 hours)

Replace by (minimum of 20 – 45 minutes).

3) Evaluation for Functionality Criteria

Replaced by wording below:

The service provider must provide at least two service/application technicians (one as a back-up) with at least five (5) years experience in installation, commissioning, servicing and maintenance of the LC-MS instrument and personnel training on the operation, maintenance and troubleshooting of the required instrument. (Failure to provide the Detailed CVs and Training Certificate/s of the Technician that include specific details of the individual experience in installation, commission, Servicing, and maintenance of LC-MS will not be considered)

- I. *Two technicians without experience in installation, commissioning, servicing, maintenance and training. – **Poor (1)***
- II. *Two technicians with less than three (3) years' experience – **Average (2)***
- III. *Two technicians with three (3) years' experience but less than five years' experience. – **Average (3)***
- IV. *Two technicians with five (5) years' experience installation, commissioning, servicing, maintenance and training – **Very Good (4)***
- V. *Two technicians with more than five (5) years' experience in installation, commissioning, servicing, maintenance and training – **Excellent (5)***

The service provider must have successfully supplied, installed, commissioned, serviced, maintained and trained personnel on the LC-MS. At least three reference letters with contactable clients/references should be attached to serve as proof for such supply, installation, commission, service, maintenance and training. **The reference letter/s must be signed, stamped and must be in the client's letterhead indicating the name of company and type of the instrument (LC-MS) where the service/s were provided, include, the company's contact details (Contact Name, Email address, Telephone/Mobile number).**

- I. No reference letter on supply, installation, commission, service, maintenance and training – Poor (1)*
- II. One (1) reference letter on supply, installation, commission, service, maintenance and training – Average (2)*
- III. Two (2) reference letters on supply, installation, commission, service, maintenance and training – Good (3)*
- IV. Three (3) reference letters on supply, installation, commission, service, maintenance and training – Very Good (4)*
- V. Four (4) or more reference letters on supply, installation, commission, service, maintenance and training –Excellent (5)*

Failure to comply with the above requirements will result to an automatic disqualification.

SIGNED ON BEHALF OF THE TENDERER:

**DEPARTMENT OF AGRICULTURE,
TENDER NO. 5/2/2/1(011)2025/2026**

FOR: THE APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

ACCEPTANCE AND INCORPORATION OF ADDENDUM

I/We accept that Addendum No 1 forms part of the Tender Documents. I/We confirm that I/we -

- (a) have noted the contents of this Addendum
- (b) have fully considered this Addendum
- (c) have incorporated the amendments and additions contained in this Addendum in my/our bid for **Tender No. 5/2/2/1(022)2025/2026**

SIGNED ON BEHALF OF THE TENDERER: ..

NAME OF SIGNATORY (BLOCK LETTERS):

NAME OF TENDERER (BLOCK LETTERS):

TENDERER'S ADDRESS:
.....

TENDERER'S TEL NO:

TENDERER'S FAX NO:

SIGNATURE OF WITNESS (1):
.....

SIGNATURE OF WITNESS (2):
.....

NAME OF WITNESSES
BLOCK LETTERS:
.....

NAME OF WITNESSES
BLOCK LETTERS:
.....



agriculture

Department:
Agriculture
REPUBLIC OF SOUTH AFRICA



TERMS OF REFERENCE FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

1. INTRODUCTION

- 1.1. The Liquor Products Laboratories (LPL) in the Directorate: Food Safety and Quality Assurance (FSQA) has Additives sub-section dedicated for the analysis of liquor products for a range of regulated and illegal additives in accordance with the stipulations of the Liquor Products Act (Act 60, 1989).
The analysis includes adulteration of liquor products, determination of artificial sweeteners, Ochratoxin A in local and export wines, etc.
- 1.2. This bid represents the requirements of the Department of Agriculture (DoA) for the appointment of a service provider/supplier for the supply, delivery, installation, commissioning, servicing, maintenance and training of the Liquid Chromatography- Mass Spectrometer (LC-MS) for the Liquor Products Laboratories (LPL) in the Directorate: FSQA.
- 1.3. The submitted bid should indicate by responding to the terms of reference outlined in this document and giving details of how the services offered will achieve the objectives of the project towards supply, delivery, installation, commissioning, service and maintenance of the LC-MS and personnel training in DoA within the stipulated time frames and contractual obligations of this project.
- 1.4. The project for procurement of LC-MS at the LPL at DoA aims to achieve the stated objectives and build capacities within the laboratory for effective analytical testing services thereafter.
- 1.5. The successful supplier will be responsible for the supply, delivery, installation, commissioning, service and maintenance of the LC-MS and personnel training in the LPL at DoA as per specifications and conditions stipulated in this document.

TERMS OF REFERENCE FOR THE APPOINTMENT OF SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

2. SCOPE OF WORK

- 2.1. The service provider must supply, deliver, install, commission, service and maintain the LC-MS on-site and train laboratory personnel on the operation, maintenance, and troubleshooting.
- 2.2. Must have five (5) years maintenance plan.
- 2.3. Price must include delivery to customer site at Department of Agriculture, Liquor Products Laboratories (LPL), Food Safety & Quality Assurance, Polkadraai Road, Stellenbosch, installation, commissioning, maintenance plan and comprehensive training of laboratory personnel.
- 2.4. The training shall be in three spaced out stages, stage 1- covering basic operation and maintenance, stage 2- covering intermediate operation and maintenance and stage 3- covering advanced operation and maintenance.
- 2.5. Training shall be spaced out at least three months apart with trainees declared competent at the end of each training. Training should be provided to at least 5 users.
- 2.6. The service provider should be able to comply to the technical specifications as stipulated in Annexure A

3. SERVICE DELIVERABLES REQUIREMENTS

- 3.1. The prospective service provider must be able to supply, deliver, install, commission, service and maintain the LC-MS and train laboratory personnel on the operation, maintenance and troubleshooting.

4. MANDATORY REQUIREMENTS

NB: Failure to submit/attach/ proof of the following requirements with the proposal will disqualify the bidder's proposal.

TERMS OF REFERENCE FOR THE APPOINTMENT OF SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

- 4.1. The service provider must be an authorised distributor of LC-MS. (**Attach distribution letter as proof**)
- 4.2. Fully completed pricing schedule (SBD 3.3). A fully completed pricing schedule on the prescribed template must be submitted.
- 4.3 Fully completed **Annexure A**.
- A fully completed Specification attached as Annexure A on the prescribed template must be submitted together with your bid.
 - **NB:** Refer to paragraph 2.6 of the Terms of Reference:(The service provider must comply to the technical specifications as stipulated in Annexure A). Failure to comply to the technical specifications as stipulated in Annexure A will lead to the disqualification of the bidder's proposal.
- 4.4 The service provider must provide brochures and or technical reports as published by the manufactures regarding all specifications of the LC-MS.
- 4.5. Service provider must attend compulsory briefing session (physically) at Department of Agriculture, Liquor Products Laboratories (LPL), Food Safety & Quality Assurance, Polkadraai Road, Stellenbosch

Note: The dimension of the instrument will be discussed and concluded during the compulsory briefing session.

5. DELIVERY:

- 5.1 Services specified in this document must be provided at the below-mentioned addresses:

Liquor Products Laboratories (LPL)
Food Safety and Quality Assurance

Polkadraai Road
Stellenbosch, 7599
Western Cape

TERMS OF REFERENCE FOR THE APPOINTMENT OF SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

6. DIRECTIVES:

6.1. Bidders must be able to supply, deliver, install, commission, service and maintain the required instrument as specified in annexure A as well as training personnel on the operation, maintenance and troubleshooting of the required instrument.

6.2 All documents (training materials, presentations), and all correspondence must be in English.

7. EVALUATION OF THE BID

This bid shall be evaluated on the basis of functionality and in accordance with 80/20 preference point system as prescribed in the Preferential Procurement Regulations, 2022 as stipulated below.

7.1 First Stage -Evaluation of Functionality

This bid shall be evaluated on functionality as stipulated below. The evaluation of the functionality will be evaluated individually by Members of Bid Evaluation Committee in accordance with the below functionality criteria and values. The applicable values that will be utilized when scoring each criterion ranges from **1 being poor, 2 being average, 3 being good, 4 being very good and 5 being excellent.**

CRITERIA	GUIDELINES FOR CRITERIA APPLICATION	WEIGHTS
RESOURCES	The service provider must provide at least two service/application technicians (one as a back-up) with at least five (5) years experience in installation, commissioning, servicing and maintenance of the LC-MS instrument and personnel training on the operation, maintenance and troubleshooting of the required instrument. (Failure to provide the Detailed CVs and Training Certificate/s of the Technician that include specific details of the individual experience in installation, commission, Servicing, and maintenance of LC-MS will not be considered)	50

TERMS OF REFERENCE FOR THE APPOINTMENT OF SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

CRITERIA	GUIDELINES FOR CRITERIA APPLICATION	WEIGHTS
	<ol style="list-style-type: none"> I. Two technicians without experience in installation, commissioning, servicing, maintenance and training. – Poor (1) II. Two technicians with less than three (3) years' experience – Average (2) III. Two technicians with three (3) years' experience but less than five years' experience. – Average (3) IV. Two technicians with five (5) years' experience installation, commissioning, servicing, maintenance and training – Very Good (4) V. Two technicians with more than five (5) years' experience in installation, commissioning, servicing, maintenance and training – Excellent (5) 	
<p>2. CAPABILITY</p> <p>(Proof of experience must be clearly and distinctly indicated)</p>	<p>The service provider must have successfully supplied, installed, commissioned, serviced, maintained and trained personnel on the LC-MS. At least three reference letters with contactable clients/references should be attached to serve as proof for such supply, installation, commission, service, maintenance and training. The reference letter/s must be signed, stamped and must be in the client's letterhead indicating the name of company and type of the instrument (LC-MS) where the service/s were provided, include, the company's contact details (Contact Name, Email address, Telephone/Mobile number).</p> <ol style="list-style-type: none"> I. No reference letter on supply, installation, commission, service, maintenance and training – Poor (1) II. One (1) reference letter on supply, installation, commission, service, maintenance and training – Average (2) III. Two (2) reference letters on supply, installation, commission, service, maintenance and training – Good (3) IV. Three (3) reference letters on supply, installation, commission, service, maintenance and training – Very Good (4) V. Four (4) or more reference letters on supply, installation, commission, service, maintenance and training – Excellent (5) 	50

TERMS OF REFERENCE FOR THE APPOINTMENT OF SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

CRITERIA	GUIDELINES FOR CRITERIA APPLICATION	WEIGHTS
	<i>NB: The department reserves the right to verify the authenticity of reference letters, in case of negative authenticity, the reference letters will not be considered.</i>	
TOTAL POINTS		100

The Bids that fail to achieve a minimum of **70** points for functionality will be disqualified and will not be invited for the second stage of evaluations in accordance with specific goals and price as stipulated below.

7.2 Second Stage — Evaluation in terms of 80/20 preference point system as prescribed in the Preferential Procurement Regulations, 2022

(a) The following formula must be used to calculate the points out of 80 for price in respect of an invitation for a tender with a Rand value equal to or below R50 million, inclusive of all applicable taxes

$$Ps = 80 (1 - Pt - P \text{ min } / P \text{ min })$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price value of offer tender consideration
- Pmin = Price value of lowest acceptable tender

(b) A maximum of 20 points may be awarded to a tenderer for being an Historically Disadvantaged Individuals (HDI) and/or subcontracting with as HDI and/or achieving any of the specified goals stipulated in Regulation 4.

(c) The points scored by tenderer in respect of the goals contemplated in sub-regulation (2) must be added to the points scored for price.

(d) Only the tender with the highest number of points scored may be selected.

7.3 Stipulation of preference point system to be used.

TERMS OF REFERENCE FOR THE APPOINTMENT OF SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

The department hereby stipulate the preference point system which will be applied in the adjudication of price quotations:

Historically disadvantaged individuals:

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system)
I. A person historically disadvantages by unfair distrimination on the basis of race: provided that a person historically disadvantaged on the basis of race refers to Africans, Coloureds, Indians and people of Chinese descent who are South African citizen by birth or descent; who become citizen of the Republic of South Africa by Naturalisation- a) Before 27 April 1994 b) On or before 27 April 1994 and who would be entitled to acquire citizenship by naturalisation prior to the date	8
II. Who is female	5
III. Who is disabled	2
IV. Specific goal: Youth	2
V. Specific goal: Promotion of South African owned enterprises	3

Total point of price and HDIs must not exceed

100

8 ENQUIRIES.

Query	Name	Contact Details
Technical	Ms Xoliswa Tlali /	021 8091643 XoliswaT@nda.gov.za
	Mr Silumko Nzube	021 8091673 SilumkoN@nda.gov.za
Bid related		

TERMS OF REFERENCE FOR THE APPOINTMENT OF SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, SERVICING AND MAINTENANCE OF THE LIQUID CHROMATOGRAPHY- MASS SPECTROMETER (LC-MS) AND PERSONNEL TRAINING FOR THE LIQUOR PRODUCTS LABORATORIES (LPL) DIRECTORATE: FOOD SAFETY AND QUALITY ASSURANCE.

9 PUBLICATION

- Departmental website
- National Treasury's E-portal
- Twenty-one (21) days.

ANNEXTURE A

Introduction

The specification for the supply, delivery, installation, commissioning, servicing and maintenance of the Liquid Chromatography – Mass Spectrometer (LC-MS) and personnel training for the Liquor Products Laboratories (LPL), Directorate: Food Safety and Quality Assurance

Minimum requirements		Comply to Specifications		
		YES	NO	COMMENTS
	Description			
1	General specification and requirements			
1.1	The Liquid Chromatography with a Triple Quadrupole Mass Spectrometer system must be controlled through a single data acquisition process.			
1.2	Five-year parts and service warranty for the major components of the system (Electronics, Hardware, and Mechanical). Please indicate the parts that will be included in your proposal. See the warranty & guarantee section (Section 9).			
1.3	The successful bidder shall be responsible for the supply of all necessary plugs, connecting cables and gas regulators required for the installation and operation of the instrument.			
1.4	A complete and comprehensive list of components and accessories (including consumables/reagents) required to enable the successful operation of the instrument shall be included with the offer. The cost of these shall be reflected in the price offered by the bidder. A clear indication shall be given of the components, accessories and consumables/reagents not included in the offer.			
1.5	The complete system , as well as service, maintenance, training, and support, must be provided by a single vendor who has been successful.			
1.6	The supplier must be able to respond to the service and maintenance calls in less than 48 hours from the time of logging a call.			
1.7a	The successful bidder must provide a comprehensive training on system and software for 5 people. The training plan must be submitted for compliance. A Service Level Agreement (SLA) will be signed with the successful bidder.			
1.7b	Comprehensive training shall be in three spaced out stages. Stage 1: covering basic operation (Running the instrument, creating methods, processing data and generating test reports, etc.). Stage 2: Covering intermediate operations (Method optimization, statistical data processing, data generation, setting conformity parameters), and basic maintenance. Stage 3: Advanced operations, maintenance, and replacement of minor and intermediate parts.			
1.8	The full software package for the control of the system must be included. Software must be specific for use with the mass spectrometer and include a comprehensive reference database with MS data for organic acids, sweeteners, additives, aflatoxins, and multi-residue analysis (veterinary drugs and pesticide).			

Minimum requirements		Comply to Specifications		
		YES	NO	COMMENTS
	Description			
2	LC Pump – specifications			
2.1	The solvent delivery system shall be capable of delivering a quaternary gradient.			
2.2	The solvent delivery system shall incorporate a four-channel vacuum degasser for continuous mobile phase conditioning.			
2.3	The solvent delivery system shall provide mobile phase compressibility compensation automatically and on a continuous basis.			
2.4	The solvent delivery system shall produce a pressure pulsation of less than 1% of the operating pressure.			
2.5	The solvent delivery system shall incorporate an automated plunger seal wash system.			
2.6	The solvent delivery system shall have a flow rate range of 0.010 to 2.000 mL/minute, settable in 0.001 mL/minute increments.			
2.7	The flow rate accuracy must be +/- 0.1%.			
2.8	Flow precision must be +/- 0.010 ml/min SD.			
2.9	Compositional accuracy must be +/- 0.2%.			
2.10	Compositional precision must be <0.15% RSD.			
2.11	The solvent delivery system shall have a flow path tolerant to a mobile phase pH of 1.0 -13.0			
2.12	The solvent delivery system shall have leak detection sensors, and the design shall enable the entire system to be shut down via the controlling software in the case of a leak. No-flow shutdown feature.			
2.13	The solvent delivery system shall have the following software-controlled functions: detecting pressure instability, error detection, setting of cut-off pressures, and time-programmable setting of the flow rate and composition of the mobile phase.			
2.14	The software shall provide information for diagnostic purposes, such as counters for litres of pumped mobile phase, seal wear, and error detection.			
3	Auto sampler			
3.1	The auto sampler must be able to make use of 2ml sample vials.			
3.2	The auto sampler shall have an injection volume range of 0.1 to 10 µL settable in 0.1 µL increments.			
3.3	The sample manager shall be able to accommodate a minimum of 90 sample vials.			
3.4	The sample manager must have integral, active, and programmable injection needle wash.			
3.5	The sample compartment temperature range must be between 4°C- 40°C settable in 0.1 °C increments.			
3.6	A sample manager must be able to carry out auto-dilutions and auto-additions.			
3.7	The auto sampler shall have extensive error detection capabilities and store error messages in a status logbook.			

Minimum requirements		Comply to Specifications		
		YES	NO	COMMENTS
	Description			
3.8	The auto sampler shall provide information for diagnostic and early maintenance purposes, such as counters for the number of injections and the number of valve cycles.			
3.9	The injection volume range must be 0.1 - 10.0 µL as the default, with the ability to extend to up to 1000.0 µL with optional extension loops.			
3.10	The sample manager precision must be ≤ 0.25% RSD for the 5.0 to 100.0 µL range.			
3.11	The sample manager carryover must be ≤ 0.002%, sample to sample, with Sulfadimethoxine (MS) and other MS acceptable standards			
4	Column compartment – specifications			
4.1	The column heater must have a temperature range of 20 - 90 °C settable in 0.1 °C increments.			
4.2	The column heater must have a temperature accuracy of +/- 0.5°C. The column heater must have a temperature stability of +/- 0.3°C.			
4.3	The system must be able to easily link to columns electronically by means of an electronic tag for column history and tracking.			
4.4	A system must have a column selection valve to change between two columns.			
4.5	The column temperature compartment shall have two independently controlled temperature zones.			
4.6	The column temperature compartment shall have a column selection valve for selecting between two columns of 30cm length with a guard column.			
4.7	The column temperature compartment shall provide safe leak handling, leak sensors for system shutdown in case of a leak, as well as error detection and display of diagnostic information.			
4.8	Fittings with reusable column inlet fittings.			
5	MS detector – specification			
5.1	The mass spectrometer must be a benchtop tandem quadrupole mass spectrometer.			
5.2	The mass spectrometer should have a mass range of 20-1500 m/z			
5.3	Polarity switching - one full cycle in <5 seconds.			
5.4	Ion source transfer optics should be off-axis to ensure active removal of neutral contaminants and gas.			
5.5	Source elements of the mass spectrometer must be easily removed for cleaning without breaking the vacuum of the instrument.			
5.6	A mass spectrometer must have a dynamic range of at least 4-6 orders of magnitude from the limit of detection without being saturated.			
5.7	Gas flows and heating elements of the Mass spectrometer must be able to be controlled by the software			
5.8	Software must include a searchable database for quantitative LC/MS method information for organic acids, sweeteners,			

Minimum requirements		Comply to Specifications		
		YES	NO	COMMENTS
	Description			
	additives, aflatoxins and multi-residue analysis (pesticides and veterinary drugs) and a library with training.			
5.9	Acquisition modes must include: <ul style="list-style-type: none"> Enhanced MS Scan. Enhanced resolution scan. Product ion scan. Precursor ion scan. Constant neutral loss scan and gain scan. Selected ion monitoring/recording. Multiple reaction monitoring (MRM). Full scan MS-triggered product ion scan. 			
5.10	The option of a divertor valve to direct all unwanted solvents and matrix to decrease contamination.			
5.11	The MS detector must make use of an off-axis photomultiplier detector or a dynode-type electron multiplier detector.			
5.12	The ion source must be easily detachable and replaceable, which allows the user to change between different ionization techniques for use with, e.g., nano-ESI			
6 Nitrogen generator, UPS and Gas Lines				
6.1	Nitrogen Generator <ul style="list-style-type: none"> The nitrogen generator with internal compressor/s with a maximum outlet gas flow of 35 L/min. High purity (99.5%) internal drying and filtration, operating reliably 24/7 for nebulization, curtain gas, and drying, ensuring stable MS performance. Noise ≤60 Db Dew point less 40 Integrated oil compressor 			
6.2	Uninterrupted Power Supply (UPS) <ul style="list-style-type: none"> Suitable UPS system with battery backup time (minimum of 20 – 45 minutes). 			
6.3	Installation of gas lines.			
7 System controller				
7.1	The system controller software shall be capable of a full and unattended start-up procedure, including conditioning of the column and switching on of the detector lamps at a pre-selected date and time.			
7.2	The system controller software shall be capable of carrying out an unattended, full shutdown procedure, including washing of the column and switching off of the detector lamps at the end of a series of sequences.			
7.3	The system controller software shall be able to execute multi-method sample sequences and allow changes to sample sequences while the instrument is running.			

Minimum requirements		Comply to Specifications		
		YES	NO	COMMENTS
	Description			
7.4	The system controller software shall allow pausing of sample sequences to run priority samples by another method, and then restart without disrupting the automated sequence.			
7.5	The system controller software shall include an integrated tutorial, task-oriented graphical user interface and/ e-leaning feature.			
7.6	The system controller software shall have an integrated, context-sensitive help function.			
7.7	The system controller software shall be capable of monitoring the instrument during acquisition and recording instrument performance parameters.			
7.8	The system controller software shall be able to determine peak purity both interactively by graphical selection from the chromatogram and automatically at the end of a run.			
7.9	The system controller software shall allow the user to graphically select spectra from a chromatogram and display them for visual comparison, as well as overlay spectra.			
7.10	The system controller software shall have a login mechanism that prevents routine operators from modifying methods.			
7.11	The system controller software shall keep a logbook record of modifications to methods.			
7.12	<p>Laser Jet Printer:</p> <p>Printer: Print Speed: Letter: Up to 22 ppm (paper per minute) black; Up to 22 ppm Colour (or equivalent)</p> <p>Print Resolution: Black (best): Up to 600 x 600 dpi; Colour (best): Up to 600 x 600 dpi (or equivalent)</p> <p>Standard Connectivity: Hi-Speed USB 2.0 port, built-in Fast Ethernet 10/100Base-TX network port, 802.11n 2.4/5GHz wireless, and walk-up host USB port (or equivalent)</p> <p>Paper Handling: 250-sheet input tray; 100-sheet output bin</p> <p>The printer should be compatible with the system control software.</p>			
8	Desktop specifications			
8.1	<p>CPU: Intel® Core™ Ultra 7 165U (Up to 3.8 GHz E-core Max Turbo frequency, up to 4.9 GHz P-core Max Turbo frequency, 12 MB L3 cache, 2 P-cores and 8 E-cores, 14 threads), supports Intel® vPro® Technology or latest equivalent Core 7 Processor (or equivalent)</p> <p>Memory: 32GB DDR4-3200 SDRAM (or equivalent)</p> <p>Disk: 1TB SATA SSD or PCIe NVMe SSD (or equivalent)</p> <p>Graphic display: VGA, DVI, HDMI, DisplayPort, if ports are not available, Supply adapter. (or equivalent)</p> <p>Screen size: 27 inch (or equivalent)</p> <p>Warranties: 5-year onsite support with retain your hard drive warrantee.</p> <p>NB: Please provide Warranty certificate from the OEM.</p>			

Minimum requirements		Comply to Specifications		
	Description	YES	NO	COMMENTS
	<p>Operating system: Windows 11 64 bit.</p> <p>The software update should be included.</p> <p>The PC should be compatible with the system control software.</p> <p>The PC should have software such as TeamViewer, MS teams, etc.</p>			
9	Warranties and guaranties			
9.1	<p>The bidder must specify the duration of the applicable guarantee and warranty that will be provided for the Instrument and its components. The following items should be included. The bidder must provide a warranty exclusion list.</p> <p>a) Nitrogen generator. b) LC components. c) MS components. d) Rotary pump. e) Computer f) UPS. g) Printer</p> <ul style="list-style-type: none"> • 5-year warranty to include all components listed, commencing after installation. 			