**Section II: Schedule of Requirements**

**eSourcing reference:** RFQ/2020/15906

The subject of the tender is supply of chemicals, lab ware and consumables for the institute for Chemistry in Skopje.

The requirements are grouped in 3 Lots:

1. LOT 1 - Proficiency testing, CRM
2. LOT 2 - Reagents
3. LOT 3 - Apparatus

Detailed list of required chemicals, lab ware and consumables for each lot is as described below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LOT 1** | **Proficiency testing, CRM** | **UNOPS minimum**  **technical requirements** | **unit** | **qty** |
| 1 | Chlorinated Pesticides in Soil,  proficiency Testing Material | Produced in accordance with ISO/IEC 17043:2010 | g | 50 |
| 2 | Pesticides on PUF,  proficiency Testing Material | Produced in accordance with ISO/IEC 17043:2010 | pk | 1 |
| 3 | Chlorinated Pesticides in Soil,  Certified reference material | CRM produced and certified in accordance with ISO 17034 and ISO/IEC 17025 | g | 50 |
| 4 | EPA 8081 Pesticide Standard Mix,  Certified reference material | 200 μg/mL in hexane: toluene (1:1), CRM produced and certified in accordance with ISO 17034 and ISO/IEC 17025 | 1 Ml, amp. | 3 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LOT 2** | **Reagents** | **UNOPS minimum**  **technical requirements** | **unit** | **qty** |
| 1 | Petroleum ether | bp 40-60 C | L | 60 |
| 2 | Acetone | p.a. | L | 40 |
| 3 | Acetone | Pesticide quality OR environmental grade | L | 1 |
| 4 | n-Hexane | Pesticide quality OR environmental grade | L | 60 |
| 5 | Diethyl ether | 99%, preserved with 2% ethanol | L | 12 |
| 6 | n-Heptane | Environmental | L | 1 |
| 7 | Alumina , Activity grade IV, 100-200 mesh | basic or neutral, 200 m2/g, activity Super I acc. Brockmann. | g | 1000 |
| 8 | Sodium Sulfate Anhydrous | analytical grade | g | 2000 |
| 9 | Silica gel | particle size 60 μm to 200 μm | g | 1000 |
| 10 | Silicic Acid | Pesticide grade, particle size 60 μm to 200 μm | g | 500 |
| 11 | Florisil | Pesticide grade | g | 500 |
| 12 | α-Hexachlorocyclohexane (α-HCH) | CAS number: 319-84-6, analytical standard | mg | 50 |
| 13 | β-Hexachlorocyclohexane (β-HCH) | CAS number: 319-85-7, analytical standard | mg | 100 |
| 14 | γ-Hexachlorocyclohexane (γ-HCH) | CAS number: 58-89-9, analytical standard | mg | 250 |
| 15 | d-Hexachlorocyclohexane (d-HCH) | CAS number: 319-86-8, analytical standard | mg | 50 |
| 16 | Mixture of isomers (α:β:γ:δ=1:1:1:1) | analytical standard | mg | 250 |
| 17 | Pesticide-Mix 8 (α,β,γ,δ,e) | 10 µg/mL in Cyclohexane | mL | 1 |
| 18 | e-Hexachlorocyclohexane (e-HCH) | CAS number: 6108-10-7, 100 µg/mL in Cyclohexane | mL | 1 |
| 19 | Hexachlorobenzene (HCB) | CAS number: 118-74-1, analytical standard | mg | 500 |
| 20 | chlorobenzene | CAS 108-90-7, 99% | mL | 500 |
| 21 | 1,2-dichlorobenzene | CAS 95-50-1, 99% | mL | 100 |
| 22 | 1,3-dichlorobenzene | CAS 541-73-1, 98% | g | 100 |
| 23 | 1,4-dichlorobenzene | CAS 106-46-7, 99% | g | 100 |
| 24 | 1,2,3-trichlorobenzene | CAS 87-61-6, 99% | g | 100 |
| 25 | 1,2,4-trichlorobenzene | CAS 120-82-1, 99% | mL | 100 |
| 26 | 1,3,5-trichlorobenzene | CAS 108-70-3, 99% | g | 100 |
| 27 | 1,2,3,4-tetrachlorobenzene (98%) | CAS 634-66-2, 98% | g | 1 |
| 28 | 1,2,4,5-tetrachlorobenzene (98%) | CAS 95-94-3, 98% | g | 5 |
| 29 | 1,2,3,5-tetrachlorobenzene (pestanal) | CAS 634-90-2, analytical standard for pesticides analysis | mg | 250 |
| 30 | pentachlorobenzene | CAS 608-93-5, 96% min | g | 5 |
| 31 | pentachloronitrobenzene (PCNB, Quintozen) | CAS 82-68-8, analytical standard | g | 100 |
| 32 | pentachlorophenol | CAS 87-86-5, analytical standard | g | 5 |
| 33 | OCs/PCBs/ACs Std Sol 24 components (ISO 10382) | 100 µg/mL in iso-octane, 1 mL | mL | 2 |
| 34 | OCs/PCBs/ACs Std Sol 36 components (ISO 6468) | 10 µg/mL in iso-octane, 1 mL | mL | 2 |
| 35 | Aroclor 1242/1254/1260, PCBs in air | 10 µg/mL in Cyclohexane, 10 mL | mL | 2 |
| 36 | 8 comp PCB 28; 52; 101; 118; 138; 153; 180; 194 | 100 µg/l each in n-hexane, 1 mL | mL | 2 |
| 37 | PCB-155: 2,2',4,4',6,6'-hexachlorobiphenyl | CAS number: 33979-03-2, analytical standard | mg | 10 |
| 38 | PCB-207: 2,3,4,6,2',3',4',5',6'-Nonachlorobiphenyl | CAS Number: 52663-79-3, analytical standard | mg | 5 |
| 39 | Mirex: 1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-, dimer | CAS Number: 2385-85-5, analytical standard | mg | 100 |
| 40 | Octachloronaphthalene (OCN) | CAS Number: 2234-13-1, research grade | mg | 30 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LOT 3** | **Apparatus** | **UNOPS minimum**  **technical requirements** | **unit** | **qty** |
| 1 | Temperature and rel. humidity logger | -40 to 70 C; 1-100% humidity; USB interface; battery operated | piece | 2 |
| 2 | Continuous-Flow Sampling Pump | continuous flow 1-5 L/min, provide constant air flow (<±5%) | piece | 1 |
| 3 | Shaking device with horizontal movement | min 50 rpm, aluminum platform (approx. 300x300 mm) | piece | 1 |
| 4 | Heating Mantles | 500 mL | piece | 2 |
| 5 | Kuderna-Danish Concentrator with Snyder columns | Concentrator Assembly, 500 mL, ground joint | piece | 2 |
| 6 | Flask for Kuderna-Danish | 500 mL, ground joint | piece | 4 |
| 7 | Graduated Concentrator Tubes | 10 mL for Kuderna-Danish concentrator | piece | 12 |
| 8 | Graduated Concentrator Tubes | 1 mL for Kuderna-Danish concentrator | piece | 6 |
| 9 | Sampling Cartridge, PUF Glass Holder Fits 22 mm OD | 20 mm x 10 cm borosilicate glass tube drawn down to 7 mm OD open connection for attachment to the pump by flexible tubing | piece | 15 |
| 10 | Sorbent, Polyurethane Foam (PUF) 1 | Small PUF Plug, Unwashed, 22 mm OD x 7.6 cm length, 10pk | piece | 100 |
| 11 | Separatory shaking funnels | capacity of 2 L | piece | 5 |
| 12 | Conical flasks, glass | 500 ml, 29/32 | piece | 20 |
| 13 | Round Bottom Flasks | 500 mL, 29/32 | piece | 10 |
| 14 | Volumetric flask, 10 mL, TFE cap | A or AS class | piece | 30 |
| 15 | Volumetric flask, 25 mL, TFE cap | A or AS class | piece | 30 |
| 16 | Pasteur Pipettes, glass | 9 in./230 mm | piece | 1000 |
| 17 | Automatic pipette, fixed volume 10 µL | Accuracy ±1% | piece | 2 |
| 18 | Automatic pipette, fixed volume 100 µL | Accuracy ±0.6% | piece | 2 |
| 19 | Tips for automatic pipettor, 10 µL | universal fit | piece | 1000 |
| 20 | Tips for automatic pipettor, 100 µL | universal fit | piece | 1000 |
| 21 | Quartz wool or silanized glass wool | rinsed with petroleum ether or hexane, Fired at 500 C | g | 100 |
| 22 | Boiling chips (glass or porcelain beads) | rinsed with petroleum ether or hexane, Fired at 500 C | g | 500 |
| 23 | TFE Fluorocarbon Tape | 1/2 in. | piece | 10 |
| 24 | Forceps, general use | Stainless steel, 12 in. (300 mm) | piece | 2 |

**Delivery requirements –– Comparative Data Table**

Delivery requirements are as described in the following table:

|  |  |
| --- | --- |
| **ELEMENT** | **UNOPS Requirements** |
| **Delivery time** | LOT1:  Ordering: at the beginning of 2021  Delivery: during February/March 2021  LOT2:  Ordering: in September 2020  Delivery: as soon as possible, maximum 30 days from order  LOT3:  Ordering: in September 2020  Delivery: as soon as possible, maximum 30 days from order |
| **Delivery place and Incoterms rules** | DAP (Delivered at Place, as per Incoterms 2010) to one Consignee (Beneficiary) in Skopje, North Macedonia, net of any direct taxes, customs duties, indirect taxes and VAT.    All costs including provision, transportation, delivery and offload (3rd floor without elevator), installation and training on the Beneficiary’s premises, of the equipment, must be included in the price. Supplier will also cover the costs of forwarder and the custom clearance agency, if needed.  Bidder shall facilitate all the necessary logistical arrangements related to provision of goods/services. |
| **Consignee details** | Address of the delivery:  Institute of chemistry, Arhimedova 5, 1000 Skopje, Republic of North Macedonia |
| **UNOPS Right**  **to vary requirements** | At the time the Contract is awarded, UNOPS reserves the right to vary the quantity of the goods and associated services specified above, without any change in the unit prices or other terms and conditions of the RFQ. |

**Important considerations**

1. Partial quotations of individual items from one lot shall not be allowed. Bidders are required to quote prices for one or more lots in their entirety. Evaluation will be done for the total requirement for each lot.
2. UNOPS reserves the right to conclude separate agreements for each lot.
3. Expenses of transportation, delivery and offload of the goods on the beneficiaries’ premises must be included in the quoted price.
4. The offered equipment/material must comply with requirements laid down in the Technical specifications (Form C: Technical Quotation Form - Technical specifications for goods – Comparative Data Table). The required specifications present minimum requirements. Bidders may offer items with more advanced specs and such offers are accepted as appropriate.
5. Manufacturer's technical literature submitted with the offer must comply with the written specifications of the Bidder. In the event that there are differences between the submitted manufacturers’ literature and written Bidder specification reasons for that must be explained in the Bidder specifications. Manufacturer's technical literature (brochures, booklets, instructions, etc.) should be submitted. The manufacturers’ technical literature should be marked in an appropriate manner (i.e. model number).
6. Bidder warrants that offered equipment is new and unused. Bidder shall further warrant that none of the supplies have any defect arising from design, materials or workmanship.
7. The Contractor will be responsible for providing after sales support through the standard manufacturer’s warranty.
8. *The Contractor will be responsible for ensuring that the treatment of the delivered equipment/material, including all import and trading procedures, complies with the mandatory legal requirements applicable in Republic of North Macedonia.*