

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
SEMI-CONDUCTOR LABORATORY (SCL)
CHANDIGARH**

Tender for ALD Precursors

Bids to be submitted online

Tender No.: SCL/PurUnit-2/SC202200008501 dated 02-06-2022

A. Tender Details

Tender No : **SCL/PurUnit-2/SC202200008501**

Tender Date : **02-06-2022**

Tender Classification: **GOODS**

Purchase Entity : **PurUnit-2**

Centre : **SEMI-CONDUCTOR LABORATORY (SCL)**

Procurement of ALD Precursors

Tender for Procurement of ALD Precursors is published herewith. Interested vendors may submit their bids as per schedule mentioned in the tender.

A.1 Tender Schedule

Bid Submission Start Date : **02-06-2022 12:30**

Bid Clarification Due Date : **23-06-2022 15:00**

Bid Submission Due Date : **30-06-2022 14:30**

Bid Opening Date : **30-06-2022 15:00**

Price Bid Opening Date : **14-07-2022 14:30**

B. Tender Attachments

Technical Write-up/Drawings

Document : ALD Precursor Cp2Mg

Document : ALD Precursor TBTEM

Document : ALD Precursor TDMASn

Document : ALD Precursor InCp

Document : ALD Precursor TiCl4

Document : ALD Precursor TMAI

Document : ALD Precursor BDEASi

Document : ALD Precursor TEMAHf

Instructions To Vendors

9. INSTRUCTIONS TO TENDERERS AND TERMS CONDITIONS OF TENDER

1. (a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
- (b) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
- (c) Specifications: Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

2. ACCEPTANCE OF STORES:

- (a) The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expense and cost.
- (b) It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval

by the purchaser, whose decision shall be final.

(c) If, in the opinion of the purchaser, all or any of the stores do not meet the performance or quality requirements specified in the Purchase Order, they shall be rejected.

(d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. 6 (c) above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

3. (a) Your quotation should be valid for 90 days (single part tender) and 120 days (two part tender) from the date of opening of the tender.

(b) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.

4. Bid shall be submitted on-line only complying specified schedule.

5. COUNTER TERMS AND CONDITION OF SUPPLIERS: Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

6. DEFINITIONS:

(a) The term PURCHASER shall mean Semi-Conductor Laboratory, Sector-72, Mohali, Punjab-160071, under the administrative control of DOS, Government of India.

(b) The term CONTRACTOR shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's successors, representative, heirs, executors and administrators unless excluded by the Contract.

(c) The term STORES shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order. (d) The term PURCHASE ORDER shall mean the communication signed on behalf of the Purchaser by an Officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

7. DELIVERY:

(a) The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed on or before the specified dates.

(b) Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either.

(i) to purchase from elsewhere, without notice to the Contractor on the account and at the risk of the

Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars, are not, in the opinion of the purchaser, readily procurable, such opinion being final) without cancelling the Contract in respect of the consignment (s) not yet due for delivery, or (ii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly if complying with the particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor. In the event of action being taken under sub-clause (iii) of clause 10 (b) above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the re-purchase or if there is an agreement to repurchase then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such re-purchase made against default. The manner and method of such re purchase shall be at the discretion of the purchaser, whose decision shall be final. It shall not be necessary for the purchaser to serve a notice of such re purchase on the defaulting Contractor. This right shall be without prejudice to the right of the purchaser to recover damages for breach of Contract by the Contractor.

8. DESPATCH: The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods dispatched. The consignment should be dispatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on said to contain basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract. Any dispatch action shall start only after receipt of purchase order signed by competent authority and as per terms and conditions.

9. EXTENSION OF TIME: As soon as it is apparent that the Contract dates cannot be adhered to, an application shall be sent by the Contractor to the purchaser. If failure, on the part of the Contractor, to deliver the stores in proper time shall have arisen from any cause which the purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final) he may allow such additional time as he considers it to be justified by circumstances, of the case without prejudice to the purchaser's right to recover liquidated damages under clause 09 thereof.

10. GST and/or other duties/levies legally leviable and intended to be claimed should be distinctly shown separately in the tender.

11. INDEMNITY: The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of infringement of any Patent, Copyright or Trademark, and shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfilment of the contract.

12. Late tenders and delayed tenders will not be considered.

13. **MODE OF PAYMENT:** Normally payment will be made for the accepted stores within 30 days from the date of receipt of the materials.

14. **PACKING FORWARDING INSURANCE:** The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract

15. **PAYMENT:** Contractor's bill will be passed for payment only after the stores have been received, inspected and accepted by the Purchaser.

16. **PRICES:** Tenderer offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variation/s.

17. **RECOVERY OF SUM DUE:** Whenever any claim for the payment of, whether liquidated or not, money arising out of or under this Contract against the Contractor, the purchaser shall be entitled to recover such sum by appropriating in part or whole, the security deposited by the Contractor, if a security is taken against the Contract. In the event of the security being insufficient or if no security has been taken from the Contractor, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor under this or any other Contract with the purchaser. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the purchaser on demand the remaining balance due. Similarly, if the purchaser has or makes any claim, whether liquidated or not, against the Contractor under any other Contract with the purchaser, the payment of all moneys payable under the Contract to the Contractor including the security deposit shall be withheld till such claims of the purchaser are finally adjudicated upon and paid by the Contractor.

18. **REJECTED STORES:** Rejected stores will remain at destination at the Contractor's risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractor's address at the Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

19. **SECURITY FOR PURCHASE OF MATERIALS:** Successful tenderer will have to furnish in the form of a bank guarantee or any other form as called for by the purchaser towards adequate security for the

materials and properties provided by the Purchaser for the due execution of the Contract.

20. TERMS CONDITIONS OF TENDER

21. TEST CERTIFICATE: Wherever required, test certificates shall be uploaded in EGPS.

22. The authority of the person signing the tender, if called for, should be produced.

23. The Purchaser reserves the right to place order on the successful tenderer for additional quantity up to 25% of the quantity offered by them at the rates quoted.

24. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderers shall supply the same at the rates quoted.

25. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.

10. Instruction to Tenderer

1. ADDRESS OF INDIAN AGENTS

2. a) Part shipment is not allowed unless specifically agreed to by us.

b) As far as possible stores should be despatched by Indian Flag Vessels / Air India through any Agency nominated by us.

3. APPLICABLE LAW:

The Contract shall be interpreted, construed and governed by the laws of India.

4. ARBITRATION: In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in New Delhi in the Arbitration and Conciliation Centre New Delhi (Domestic and International) as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by

the Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be English only.

Work under the Contract shall be continued by the CONTRACTOR during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the Purchaser or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained.

5. Bid shall be submitted online only complying specified schedule and complete in all respects with technical specifications, including pamphlets and catalogues.

6. Bid should contain the following information:

- a) The earliest delivery period and country of origin of the Stores.
- b) Bankers name, address, telephone/fax Nos. and e-Mail ID of the Contractor.
- c) The approximate net and gross weight and dimensions of packages /cases.
- d) Recommended spares for satisfactory operation for a minimum period of one year, wherever applicable.
- e) Details of any technical service, if required for erection, assembly, commissioning and demonstration.

7. CONSIGNEE:

Purchase and Stores Officer, SCL Stores
Semi-Conductor Laboratory
Sector 71, Mohali
Punjab-160071
India.

8. CONTRACTORS DEFAULT LIABILITY:

The purchaser may upon written notice of default to the Contractor terminate the Contract in whole or in part in circumstances detailed here under:

- a) If in the judgement of the Purchaser the Contractor fails to make delivery of Stores within the time specified in the Contract/ agreement or within the period for which extension has been granted by the Purchaser to the Contractor.
- b) If in the judgment of the Purchaser the Contractor fails to comply with any of the other provisions of this Contract.

9. COUNTER TERMS AND CONDITIONS OF SUPPLIERS:

Where counter terms and conditions/printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the purchaser unless specific written acceptance thereof is obtained.

10. DEMURRAGE:

Supplier shall bear demurrage charges, if any, incurred by the purchaser due to delayed presentation of shipping documents as prescribed in the bankers within a reasonable time (say within 10 to 12 days) from the date of bill of lading for sea consignments and within 3 to 4 days from the date of Air Way Bill for air consignments.

11. Force Majeure:

If the completion of supply of stores is delayed due to reason of force majeure such as acts of god, acts of public enemy, acts of Government, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, etc., the Contractor shall give notice within 15 days to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice after verification, if necessary, may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the Contract.

12. IMPORT LICENCE:

Reference to Import License No. and date and Contract number and date shall be prominently indicated in all the documents

13. In case of any difference between General Terms & Conditions enclosed and Terms & Conditions specific to this tender i.e. technical specifications & Vendor Specified Terms, terms and conditions specific to this tender will prevail.

14. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all Stores supplied against this Contract are free and clean of infringement of any patent, copyright or trade mark and shall at all times indemnify the purchaser against all claims which may be made in respect of stores for infringement of any right protected by Patent, Registration of design or Trade Mark, and shall take all risk of accident or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfillment of the Contract.

15. INSPECTION AND ACCEPTANCE TEST:

16. Instructions / Operation Manual containing all assembly details including wiring diagrams should be sent wherever necessary in duplicate. All documents / correspondence should be in English language only.

17. INSURANCE OF THE STORES:

The necessity or otherwise of insurance will be as indicated in the Purchase Order.

18. In the event the Purchaser terminates the Contract in whole or in part as provided in Clause 9, the Purchaser reserves the right to Purchase, upon such terms and in such a manner as he may deem appropriate, stores similar to that terminated and the Contractor shall be liable to the Purchaser for any

additional costs for such similar stores and/or for liquidated damages for delay as defined in Liquidated Damages clause until such reasonable time as may be required for the final supply of stores.

If this Contract is terminated as provided in Clause 9 the Purchaser in addition to any other rights provided in this Article, may require the Contractor to transfer title and deliver to the Purchaser under any of the following clauses in the manner and as directed by the Purchaser:

a) Any completed stores.

b) Such partially completed stores, drawing, information and Contract rights (hereinafter called manufacturing material) as the Contractor has specifically produced or acquired for the performance of the Contract as terminated. The Purchaser shall pay to the Contractor the Contract price for completed stores delivered to and accepted, by the purchaser and for manufacturing material delivered and accepted.

In the event the Purchaser does not terminate the Contract as provided in Clause 9, the Contractor shall continue the performance of the Contract in which case he shall be liable to the purchaser for liquidated damages for delay as set out in Clause for DELAY IN COMPLETION / LIQUIDATED DAMAGES until the stores are accepted.

19. It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser.

20. LANGUAGE AND MEASURES:

All documents pertaining to the Contract including specification, schedule, notice, correspondence, operating and maintenance instructions, drawings or any other writings shall be written in English language. The metric system of measurement shall be used exclusively in the Contract.

21. PACKING:

a) The Contractor wherever applicable shall pack and crate all stores for sea /air shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail or sea for space qualified stores. The Contractors shall be held responsible for all damages due to improper packing.

b) The Contractor shall ensure that each box / unit of shipment is legible and properly marked for correct identification. The failure to comply with this requirement shall make the Contractor liable for additional expenses involved.

c) The Contractor shall notify the purchaser of the date of shipment from the port of embarkation as well as the expected date of arrival of such shipment at the designated port of arrival.

d) The Contractor shall give complete shipment information concerning the weight, size, content of each packages, etc.

e) Transshipment of equipment shall not be permitted except with the written permission of the purchaser.

f) Apart from the despatch documents negotiated through Bank, the following documents shall also be airmailed to the purchaser within 7 days from the date of shipment by sea and within 3 days in case of

air consignments:

- a) Commercial Bill of Lading / Air Way Bill / Post parcel Receipt. (Two nonnegotiable copies)
- b) Invoice (3 copies)
- c) Packing List (3 copies)
- d) Test Certificate (3 copies)
- e) Certificate of Origin.

The Contractor shall also ensure that one copy of the packing list is enclosed in each case.

22. REJECTION:

In the event that any of the stores supplied by the Contractor is found defective in material or workmanship or otherwise not in conformity with the requirements of the Contract specifications, the purchaser shall either reject the stores or request the Contractor, in writing, to rectify the same. The Contractor, on receipt of such notification, shall either rectify or replace the defective stores free of cost to the purchaser. If the Contractor fails to do so, the purchaser may at his option either:

- a) replace or rectify such defective stores and recover the extra cost so involved from the Contractor, or
- b) terminate the Contract for default as provided under clause 9 above, or
- c) acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the Purchasers rights under Liquidated Damages clause.

23. REQUIREMENT OF ADDITIONAL NUMBERS OF THE STORES/SPARE PARTS ORDERED:

The Contractor shall also undertake the supply of additional number of items covered by the order as considered necessary by the purchaser at a later date, the actual price to be paid shall be mutually agreed to after negotiations.

24. Samples, if called for, should be sent free of all charges.

25. SECURITY INTEREST:

On each item to be delivered under this Contract, including an item of work in progress in respect of which payments have been made in accordance with the terms of the Contract, purchaser shall have a security interest in such items which shall be deemed to be released only at the time when the applicable deliverable item is finally accepted and delivered to the purchaser in accordance with the terms of the Contract. Such security interest of the purchaser shall constitute a prior charge as against any other charge or interest created in respect of such items by any entity.

26. SHIPPING MARKS.

The mark on the shipping documents such as invoice, bill of lading and on the packages should be as follow:

PURCHASE ORDER NO.

DATED

GOVERNMENT OF INDIA

DEPARTMENT OF SPACE

Semi-Conductor Laboratory

Destination:

Port of Entry:

27. TERMS AND CONDITIONS

28. TERMS OF PAYMENT:

The Sight Draft / Letter of Credit will be operative on presentation of the under mentioned documents:

a) Original Bill of Lading / Airway Bill

b) Commercially certified invoices describing the stores delivered, quantity, unit rate and their total value, in triplicate. The invoice should indicate the discounts, if any, and Agency Commission separately.

c) Packing List showing individual dimensions and weight of packages.

d) Country of Origin Certificate in duplicate.

e) Test Certificate as applicable.

f) Declaration by the Seller that the contents in each case are not less than those entered in the invoices and the quality of the Stores are guaranteed as per the specifications asked for by the Purchaser.

g) Warrantee and guarantee Certificate/s as applicable.

29. The authority of person signing the tender, if called for, shall be produced.

30. The offer should be valid for a minimum period of 90 days (single part tender) and 120 days (Two-part tender) from the due date of opening of the tender.

31. The Purchaser representatives shall also be entitled at all reasonable times during manufacture to inspect, examine and test on the Contractors premises the material and workmanship of all stores to be supplied under this Contract and if part of the said stores is being manufactured on other premises, the Contractor shall obtain for the purchasers representative permission to inspect, examine and test as if the equipment were being manufactured on the Contractors premises. Such inspection, examination and testing shall not release the Contractor from the obligations under this Contract.

For tests on the premises of the Contractor or of any of his sub Contractors, the Contractor shall provide free of cost assistance, labour, material, electricity, fuel and instruments as may be required or as may be reasonably needed by the purchasers representative to carry out the tests efficiently.

When the stores have passed the specified test, the purchasers representative shall furnish a certificate to the effect in writing to the Contractor. The Contractor shall provide copies of the test/s certificates to the purchaser as may be required.

32. The Purchaser reserves the right to accept or reject the lowest or any offer in whole or part.

33. Where erection or assembly or commissioning is a part of the Contract, it should be done immediately on notification. The Contractor shall be responsible for any loss/damage sustained due to delay in fulfilling this responsibility.

C. Bid Templates

C.1 Technical Bid - ALD Precursors

1. Tetrakis (ethylmethylamino) Hafnium (TEMAHf) chemical for ALD

Item specifications for Tetrakis (ethylmethylamino) Hafnium (TEMAHf) chemical for ALD

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	PROPERTY CAS Number Assay Purity (excluding Zirconium)	SPECIFICATION 352535-01-4 >99 >99.999 %	Yes / No / Explain		
2	TRACE METAL IMPURITIES Total Metal Impurities (excluding Zirconium) Zirconium	SPECIFICATION <10 ppm <200 ppm	Yes / No / Explain		
3	Certification (COA- Certificate of Analysis) required	Batch analysis	Yes / No / Explain		
4	Shelf Life	5 years (from the date of filling)	Yes / No / Explain		
5	Fill Quantity	300 grams	Yes / No / Explain		
6	Packing Details Container Model: Container Material Min Temperature Vapour Pressure Total Capacity Max. Filling Volume Max. Temperature	as will be supplied by SCL: Picosun make Picohot 300 AISI 316 SS (Electropolished) 40 deg C >1 hPa (i.e., >1mbar) 570 mL 400 mL 300 degC	Yes / No / Explain		
7	Safety Requirement	Vendor to specify	Yes / No / Explain		
8	Storage Conditions	Ambient	Yes / No / Explain		
9	Test Specifications	Vendor to provide complete analytical data vis - a -vis SCL's Specifications	Yes / No / Explain		

Document : Item Doc Tetrakis (ethylmethylamino) Hafnium (TEMAHf) chemical for ALD_1_05

2. Bis(diethylamino) Silane (BDEASi) chemical for ALD**Item specifications for Bis(diethylamino) Silane (BDEASi) chemical for ALD**

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	PROPERTY CAS Number Assay Element purity, Silicon	SPECIFICATION 27804-64-4 >99 % >99.999 %	Yes / No / Explain		
2	TRACE METAL IMPURITIES Total Metal Impurities	SPECIFICATIONS <10 ppm	Yes / No / Explain		
3	Certification (COA- Certificate of Analysis) required	Batch analysis.	Yes / No / Explain		
4	Shelf Life	5 years (from the date of filling)	Yes / No / Explain		
5	Fill Quantity	300 mL	Yes / No / Explain		
6	Packing Details Container Model: Container Material Min Temperature Vapour Pressure Total Capacity Max. Filling Volume Max. Temperature	as will be supplied by SCL Picosun make Picohot 300 AISI 316 SS (Electropolished) 40 deg C >1 hPa (i.e., >1mbar) 570 mL 400 mL 300 degC	Yes / No / Explain		
7	Safety Requirement	Vendor to specify	Yes / No / Explain		
8	Storage Conditions	Ambient	Yes / No / Explain		
9	Test Specifications	Vendor to provide complete analytical data vis - a -vis SCL's Specifications.	Yes / No / Explain		

Document : Item Doc Bis(diethylamino) Silane (BDEASi) chemical for ALD_1_03 ALD BDEASi Spec 2022.pdf

3. Trimethylaluminium (TMAI) chemical for ALD

Item specifications for Trimethylaluminium (TMAI) chemical for ALD

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	PROPERTY CAS Number Metal purity, Aluminium Oxygen	SPECIFICATION 75-24-1 >99.999 % <10 ppm	Yes / No / Explain		
2	TRACE METAL IMPURITIES Total Metal Impurities	SPECIFICATION <10 ppm	Yes / No / Explain		
3	Certification (COA – Certificate of Analysis)	to be provided by vendor – Batch analysis.	Yes / No / Explain		
4	Shelf Life	5 years (from the date of filling)	Yes / No / Explain		
5	Fill Quantity	600 grams.	Yes / No / Explain		
6	Packing Details Container Model: Container Material Container Code Vapour Pressure Total Capacity Max. Filling Volume Temperature Set point	as will be supplied by SCL: Picosun make Picosolution600 AISI 316 SS (Electropolished) B07004 container R22042 >10 hPa (i.e., >10mbar) 915 mL 685 mL 5 deg C below ambient	Yes / No / Explain		
7	Safety Requirement	Vendor to specify	Yes / No / Explain		
8	Storage Conditions	Ambient	Yes / No / Explain		
9	Test Specifications	Vendor to provide complete analytical data vis - a -vis SCL's Specifications	Yes / No / Explain		

[Document : Item Doc Trimethylaluminium \(TMAI\) chemical for ALD_1_01 ALD TMAI Spec 2022.pdf](#)

4. Titanium tetrachloride (TiCl₄) chemical for ALD

Item specifications for Titanium tetrachloride (TiCl₄) chemical for ALD

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	PROPERTY CAS Number Metal purity, Titanium	SPECIFICATION 7550-45-0 >99.999 %	Yes / No / Explain		
2	TRACE METAL IMPURITIES Total Metal Impurities	Specifications <10 ppm	Yes / No / Explain		
3	Certification (COA- Certificate of Analysis) required	Batch analysis.	Yes / No / Explain		
4	Shelf Life	5 years (from the date of filling)	Yes / No / Explain		
5	Fill Quantity	600 mL	Yes / No / Explain		
6	Packing Details Container Model: Container Material Container Code Vapour Pressure Total Capacity Max. Filling Volume Temperature Set point	as will be supplied by SCL: Picosun make Picosolution600 AISI 316 SS (Electropolished) B07004 container R22042 >10 hPa (i.e., >10mbar) 915 mL 685 mL 5 deg C below ambient	Yes / No / Explain		
7	Safety Requirement	Vendor to specify	Yes / No / Explain		
8	Storage Conditions	Ambient	Yes / No / Explain		
9	Test Specifications	Vendor to provide complete analytical data vis - a -vis SCL's Specifications	Yes / No / Explain		

[Document : Item Doc Titanium tetrachloride \(TiCl4\) chemical for ALD_1_02 ALD TiCl4 Spec 2022.pdf](#)

5. Cyclopentadienyl indium (I) (InCp, C5H5In) chemical for ALD

Item specifications for Cyclopentadienyl indium (I) (InCp, C5H5In) chemical for ALD

SI No	Specification	Value	Compliance	Offered Specification	Remark
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1	PROPERTY CAS Number Metal purity, Indium	SPECIFICATION 34822-89-4 >99.999 %	Yes / No / Explain		
2	TRACE METAL IMPURITIES Total Metal Impurities	SPECIFICATION <10 ppm	Yes / No / Explain		
3	Certification (COA- Certificate of Analysis) required	Batch analysis.	Yes / No / Explain		
4	Shelf Life	5 years (from the date of filling)	Yes / No / Explain		
5	Fill Quantity	300 mL	Yes / No / Explain		
6	Packing Details Container Model: Container Material Min Temperature Vapour Pressure Total Capacity Max. Filling Volume Max. Temperature	as will be supplied by SCL: Picosun make Picohot 300 AISI 316 SS (Electropolished) 40 deg C >1 hPa (i.e., >1mbar) 570 mL 400 mL 300 deg C	Yes / No / Explain		
7	Safety Requirement	Vendor to specify	Yes / No / Explain		
8	Storage Conditions	Ambient	Yes / No / Explain		
9	Test Specifications	Vendor to provide complete analytical data vis - a -vis SCL's Specifications	Yes / No / Explain		

[Document : Item Doc Cyclopentadienyl indium \(I\) \(InCp, C5H5In\) chemical for ALD_1_04 ALD InCp Spec 2022.pdf](#)

6. Tetrakis(dimethylamino)tin (TDMASn,C8H24N4Sn) chemical for ALD

Item specifications for Tetrakis(dimethylamino)tin (TDMASn,C8H24N4Sn) chemical for ALD

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	PROPERTY CAS Number Assay Metal purity, Tin	SPECIFICATION 1066-77-9 99 % >99.999 %	Yes / No / Explain		
2	TRACE METAL IMPURITIES Total Metal Impurities	SPECIFICATIONS <10 ppm	Yes / No / Explain		

3	Certification (COA-Certificate of Analysis) required	Batch analysis.	Yes / No / Explain		
4	Shelf Life	5 years (from the date of filling)	Yes / No / Explain		
5	Fill Quantity	300 mL	Yes / No / Explain		
6	Packing Details Container Model: Container Material Min Temperature Vapour Pressure Total Capacity Max. Filling Volume Max. Temperature	as will be supplied by SCL: Picosun make Picohot 300 AISI 316 SS (Electropolished) 40 deg C >1 hPa (i.e., >1mbar) 570 mL 400 mL 300 deg C	Yes / No / Explain		
7	Safety Requirement	Vendor to specify	Yes / No / Explain		
8	Storage Conditions	Ambient	Yes / No / Explain		
9	Test Specifications	Vendor to provide complete analytical data vis - a -vis SCL's Specifications.	Yes / No / Explain		

[Document : Item Doc Tetrakis\(dimethylamino\)tin \(TDMASn,C8H24N4Sn\) chemical for ALD_1_06 ALD TDMASn Spec 2022.pdf](#)

7. Tris(ethylmethylamido)(tert-butylimino)tantalum(V) (TBTEMT) chemical for ALD

Item specifications for Tris(ethylmethylamido)(tert-butylimino)tantalum(V) (TBTEMT) chemical for ALD

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	PROPERTY CAS Number Metal purity, Tantalum (Min)	SPECIFICATION 511292-99-2 >99.999 %	Yes / No / Explain		
2	TRACE METAL IMPURITIES Total Metal Impurities	SPECIFICATION <10 ppm	Yes / No / Explain		
3	Certification (COA-Certificate of Analysis) required	Batch analysis.	Yes / No / Explain		

4	Shelf Life	5 years (from the date of filling)	Yes / No / Explain		
5	Fill Quantity	300 mL	Yes / No / Explain		
6	Packing Details Container Model: Container Material Min Temperature Vapour Pressure Total Capacity Max. Filling Volume Max. Temperature	as will be supplied by SCL: Picosun make Picohot 300 AISI 316 SS (Electropolished) 40 deg C >1 hPa (i.e., >1mbar) 570 mL 400 mL 300 degC	Yes / No / Explain		
7	Safety Requirement	Vendor to specify	Yes / No / Explain		
8	Storage Conditions	Ambient	Yes / No / Explain		
9	Test Specifications	Vendor to provide complete analytical data vis - a -vis SCL's Specifications.	Yes / No / Explain		

Document : [Item Doc Tris\(ethylmethylamido\)\(tert-butylimino\)tantalum\(V\) \(TBTEMT\) chemical for ALD_1_07 ALD TBTEMT Spec 2022.pdf](#)

8. Bis(cyclopentadienyl)magnesium(Cp2Mg) chemical for ALD

Item specifications for Bis(cyclopentadienyl)magnesium(Cp2Mg) chemical for ALD

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	PROPERTY CAS Number Assay Purity (excluding Aluminium)	SPECIFICATION 1248-72-6-- >98% >99.999%	Yes / No / Explain		
2	TRACE METAL IMPURITIES Total Metal Impurities (excluding Aluminium) Aluminium	SPECIFICATION <10 ppm <30 ppm	Yes / No / Explain		
3	Certification (COA- Certificate of Analysis) required	Batch analysis.	Yes / No / Explain		
4	Shelf Life	5 years (from the date of filling)	Yes / No / Explain		

5	Fill Quantity	300 mL	Yes / No / Explain		
6	Container Model: Container Material Min Temperature Vapour Pressure	Picosun make Picohot 300 AISI 316 SS (Electropolished) 40 deg C >1 hPa (i.e., >1mbar)	Yes / No / Explain		
7	Total Capacity Max. Filling Volume Max. Temperature	570 mL 400 mL 300 degC	Yes / No / Explain		
8	Safety Requirement	Vendor to specify	Yes / No / Explain		
9	Storage Conditions	Ambient	Yes / No / Explain		

[Document : Item Doc Bis\(cyclopentadienyl\)magnesium\(Cp2Mg\) chemical for ALD_1_08 ALD Cp2Mg Spec 2022.pdf](#)

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	As Mentioned in Item Specification		-		

Supporting Documents required from Vendor

1. 1) Vendor to provide COA before shipment 2) As per item specification

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	As Per Item Specification	Yes / No / Explain	
2	All Precursors shall be refilled and supplied in the containers provided by SCL.	Yes / No / Explain	
3	This being a two-part tender- Technical and Commercial part separate, the Technical part should not contain Pricing information. The tenders containing Price details in Technical part will be summarily rejected. The prices should only be quoted in Price Bid template.	Yes / No / Explain	
4	Delivery Term (For indigenous vendor): 1.) Empty Precursor containers shall be picked up by vendor from SCL for filling the tendered chemicals and shall be delivered back to SCL after filling. 2.) To and Fro charges (i.e.) picking up Empty Precursor Containers from SCL and delivering them back after filling the chemicals back to SCL shall be to Contractor s account.	Yes / No / Explain	
5	Delivery Term (For Foreign vendor): 1.) Empty Precursor containers shall delivered to vendor works on door delivery basis for filling. 2.) After filling of chemicals, cylinders shall be picked up by SCL s designated Freight Forwarder on FCA nearest International/Gateway airport basis inclusive of all taxes, levies, duties arising in the tenderer country.	Yes / No / Explain	
6	GST (For indigenous vendor): Purchaser is eligible to issue concessional IGST of 5 percent as per Ministry of Finance, Department of Revenue, Notification No. 47/2017 Integrated Tax (Rate) dated 14th November, 2017 and would accordingly issue Exemption Certificate in favour of the contractor quoting. The bidder should take note of the same while quoting the prices.	Yes / No / Explain	

7	<p>For imported materials, Purchaser is eligible to issue Customs duty exemption certificate (CDEC) to the contractor under customs notification no.51/96 dated 23.07.1996 and subsequent amendments to enable the contractor to avail off the benefit of concessional rate of customs duty under this notification. CVD under this notification is nil. In addition to the above CDEC, any documentary support requested by the contractor from the purchaser for customs clearance of goods against the above CDEC shall be provided by the purchaser. (Purchaser will provide Customs Duty Exemption Certificate in case of Import Orders/ imported supplies/ High Sea Sales).</p>	Yes / No / Explain	
8	<p>Delivery Period: Vendor shall indicate their minimum delivery period considering to and fro transportation.</p>	Yes / No / Explain	

9	<p>Security Deposit: On acceptance of the tender, the Contractor shall submit security deposit for three percent (03 percent) value of the Purchase Order (PO) within 15 days from the date of PO towards successful execution of the PO. Security Deposit shall be submitted through Demand Draft / Bankers Cheque/ fixed deposit receipt or Bank Guarantee from any of the Scheduled Banks executed on non-judicial stamp paper of appropriate value, and shall be valid for a period of sixty (60) days beyond the date for completion of the Purchase Order.</p> <p>(This will be returned by SCL immediately on execution of the PO satisfactorily as per order terms. If not, the amount will be forfeited).</p> <p>In case Security Deposit is submitted in the form of Bank Guarantee (BG), after the issue of BG, the issuing bank shall communicate the genuineness of BG through e-mail from banks domain to njain at scl.gov.in and copy to harjeet at scl.gov.in followed by a hard copy to Shri Naveen Jain, Sr. Accounts Officer, Semi-Conductor Laboratory, Sector - 72, Mohali - 160071 and copy to Shri Harjeet Singh, Sr. Purchase and Stores Officer, Semi-Conductor Laboratory, Sector -72, Mohali-160071.</p>	Yes / No / Explain	
10	<p>Liquidated Damages (LD): If the Contractor fails to deliver the stores within the time specified in the contract or any extension thereof, the purchaser shall recover from the Contractor as liquidated damages a sum of one-half of one percent (0.5 percent) of the Contract price of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10 percent) of the Contract price.</p>	Yes / No / Explain	

11	<p>Terms of Payment in case of overseas supplier(s): 100% Payment shall be made through Sight Draft within 30 days upon shipment against presentation of shipping documents to Purchaser bank routed through contractor bank.</p> <p>All bank charges outside India related to the payment shall be borne by the Contractor and all bank charges in India shall be borne by the purchaser.</p>	Yes / No / Explain	
12	<p>Terms of payment in case of indigenous supplier(S): 100 percent payment within 30 days after receipt and acceptance of material at SCL.</p>	Yes / No / Explain	
13	<p>Validity of Offer: The offer should be valid for a minimum period of 120 days from the date of opening of Techno-Commercial bid and 90 days after opening of price bid.</p>	Yes / No / Explain	
14	<p>Mode of Dispatch: (a.)In case of indigenous orders, stores shall be dispatched by Road transport by the vendor. (b.)In case of foreign orders, stores should be dispatched through Purchaser s designated freight forwarder whose name & address shall be mentioned in the Purchase Order.</p>	Yes / No / Explain	
15	<p>Insurance of Stores: The necessity or otherwise of insurance will be as indicated in the Purchase Order/Contract.</p>	Yes / No / Explain	
16	<p>Packing and Forwarding: The Contractor shall pack and crate all stores for air/sea/road shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail, air or sea. The Contractors shall be responsible for all damages due to improper packing.</p>	Yes / No / Explain	

17	<p>REJECTION: In the event that any of the stores supplied by the Contractor is found defective in material or workmanship or otherwise not in conformity with the requirements of the Contract specifications, the purchaser shall either reject the stores or request the Contractor, in writing, to rectify the same. The Contractor, on receipt of such notification, shall either rectify or replace the defective stores free of cost to the purchaser.</p>	Yes / No / Explain	
18	<p>ARBITRATION: In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in New Delhi in the Arbitration and Conciliation Centre New Delhi (Domestic and International) as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be English only. Work under the Contract shall be continued by the CONTRACTOR during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the Purchaser or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained</p>	Yes / No / Explain	

19	Applicable Law: The Contract shall be interpreted, construed and governed by the laws of India.	Yes / No / Explain	
20	Conditions in respect to Bidder from a country which shares land border with India: i) Whether the vendor/Supplier is from any country sharing land borders with India or whether the vendor/Supplier is representing any principal vendor/supplier sharing land borders with India. ii) If the vendor/supplier is from any country which shares land borders with India, or if the vendor/supplier is an Indian Agent representing principal vendor/supplier of a country which shares land borders with India, they shall submit photocopy documentary proof of Registration with Registration Committee constituted by Department of promotion of Internal Industry and Trade [DPIIT]. The provisions of following Orders issued by Department Of Expenditure, Ministry of Finance are applicable in this regard: (a) Order (Public Procurement No.1) Nos.6/182019-PPD dt July 23, 2020. (b) Order (Public Procurement No.2) Nos.6/182019-PPD dt July 23, 2020 (c) Order (Public Procurement No.3) Nos.6/182019-PPD dt July 24, 2020 on clarification to Order (Public Procurement No.1) dt July 23, 2020. iii) Offer received from vendor who fall in this category but does not submit copy of documentary proof of Registration shall be rejected.	Yes / No / Explain	
21	The participating vendors/suppliers/service providers shall indicate specifically whether they fall in the category of Class-I Local supplier or Class-II Local supplier or Non- Local supplier for evaluation as per Ministry of Commerce and Industry Office Order No :-P-45021/2/2017-PP (BE-II) dt 16th September 2020. The vendor/supplier/service provider shall submit documentary proof in this regard. The provisions of above referred OM shall apply for this procurement.	Yes / No / Explain	

22	Indicate the name and address of the vendor for placing Purchase Order along with their e-mail ID, contact person and designation, Telephone No. and fax no.	Yes / No / Explain	
23	Special Instructions: 1. Vendor to provide COA (Certificate of Analysis) prior to shipment of material. 2. Precursor containers for each chemical will be provided by SCL for filling.	Yes / No / Explain	
24	Shelf Life: Vendor to ensure shelf life of minimum 5 years for the material.	Yes / No / Explain	
25	P.O. shall be awarded to Consolidated L-1 vendor instead of individual L-1 vendor for each item.	Yes / No / Explain	
26	Any Other Term:	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	Tetrakis (ethylmethylo) Hafnium (TEMAHf) chemical for ALD	300.00 Grams		-		
2	Bis(diethylamino) Silane (BDEASi) chemical for ALD	300.00 Grams		-		
3	Trimethylaluminum (TMAI) chemical for ALD	600.00 Grams		-		
4	Titanium tetrachloride (TiCl4) chemical for ALD	600.00 Grams		-		
5	Cyclopentadienyl indium (I) (InCp, C5H5In) chemical for ALD	300.00 Grams		-		

6	Tetrakis(dimethylamino)tin (TDMASn, C ₈ H ₂₄ N ₄ Sn) chemical for ALD	300.00 Grams		-		
7	Tris(ethylmethylamido)(tert-butylimino)tantalum(V) (TBTEMT) chemical for ALD	300.00 Grams		-		
8	Bis(cyclopentadienyl)magnesium(Cp ₂ Mg) chemical for ALD	300.00 Grams		-		