## **APPLICATION FOR ENLISTMENT OF VENDORS**

**MATERIALS DEPARTMENT** 

HINDUSTAN ORGANIC CHEMICALS LTD.

AMBALAMUGAL P.O.

KOCHI – 682 302

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#### **GENERAL INSTRUCTIONS TO VENDORS**

- Application shall be accompanied by Processing fee of Rs.1000/- (non-refundable) by way of DD in favour of M/s.HOCL payable at Ernakulam/ Ambalamedu. <u>MSME</u> <u>registered vendors</u> are exempted from submitting processing fee.
- 3) An applicant is not permitted to seek enlistment under more than one name including proprietorship/partnership firm.
- 4) HOCL reserves the right to cancel the enlistment of any vendors for any of the following reasons.
  - a) If the vendor is found blacklisted/put on holiday list by any Govt./PSUs/PSEs etc.
  - b) If the vendor has submitted false information in seeking enlistment.
  - c) If the performance of vendor so enlisted is observed to be poor.
  - d) Any other valid reason.
- 5) HOCL reserves the right to accept/reject any application received at its absolute discretion.
- 6) If the applicant require enlistment for more than one category of item (like Mechanical items, Instrumentation items, Electrical items etc), separate applications should be submitted for each category of items along with necessary documents. However for items falling under one Category of items as given in List B, one application will do. For each item, necessary supporting documents/ credentials to be enclosed.
- 7) The enlistment process may consist of a multiphase evaluation with verification of documents, factory/ site visit for inspection etc. After completion of evaluation and approval, the selected vendors will be shortlisted into vendor lists for each item. Further tenders will be sent to those shortlisted vendors from time to time.

#### 8) <u>PURCHASE/PRICE PREFERENCES for MSME registered vendors</u>:

- a) Any purchase/price preferences offered to PSUs/SSI/<u>MSME/NSIC</u> Units etc will be as per the Govt. of India Policies/guidelines existing from time to time. The vendor should make their claim in the offer itself for such preferences with documentary evidence.
- b) EMD shall be NIL for MSME registered vendors in all tenders.
- c) SECURITY DEPOSIT will be limited to the monetary limit shown in the NSIC certificate in this regard.
- d) PRICE PREFERENCE will be given to up to 15%. In tender, participating MSEs quoting price within price band of L1+15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than an MSE and such MSE shall be allowed to supply up to 20% of total tendered value. In case of more than one MSE, the supply shall be shared proportionately.
- e) Percentage of procurement from MSEs for items will be 25% of total procurement value other than Raw Materials.
- f) Percentage of procurement from MSE's owned by Women entrepreneurs will be 3%, out of 25% earmarked for MSE's for items other than Raw Materials
- g) Percentage of procurement from only MSEs owned by SC/ST entrepreneurs out of total procurement for items other than Raw Materials will be 4%.

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# 5 HINDUSTAN ORGANIC CHEMICALS LTD Ambalamugal, COCHIN 682 302

## FORM FOR ENLISTMENT OF VENDORS

ITEM :.....

1.	Name & Address of vendor:	
а	Head office	
b	Branch office, nearest to KOCHI	
	Phone no:	
2.	Fax NO:	
Ζ.	Email ID:	
	Website:	
3.	Products / Services provided: (Detailed catalogues to be furnished)	
4.	Present customers: (Detailed list to be provided with order values.)	
5.	Details of various certifications such as ISO – 9001, ISO-14001, BIS certification etc(copy of all relevant certificate must be enclosed )	

14.	Details of your sales / marketing set up.			
13.	Details of central public sector organizations who are your customers:			
12.	Details of manufacturing / service facilities and capacities: (Enclose details)			
		Trader	Private Limited	Private sector
11	(Strike off details not applicable)	Authorize d	Public Limited	Public sector
	Type of firm	Manufact urer	Proprietary	Partnership
10.	Technical collaborations if any:			
9.	Details of awards if any won in the last three years.			
8.	Sales turnover for the previous 3 years copy of Audited balance sheets for 3 years to be enclosed)			
7.	Details of purchase orders, work orders received from reputed customers so as to meet the eligibility criteria specified. Attach copies			
6.	Number of years of experience in manufacturing/ supplying the product or service.			

15.	Any other information which you would like to highlight for considering you for registration:	
16.	Excise & Sales tax registration number. (copy of Registration certificate to be enclosed)	ENCLOSED/ NOT ENCLOSED
17.	Solvency Certificate (recent) from bank to be enclosed	ENCLOSED/ NOT ENCLOSED
18	Enlistment Fee of Rs 1000/-	ENCLOSED/ NOT ENCLOSED
19	Details of contact person with email, Phone, fax	

Certified that all the details furnished above and in attached documents are true to the best of my knowledge .It is also certified that we were not blacklisted by any PSU/GOVT Organisations during the last 5 years.

SEAL:

SIGNATURE OF VENDOR

DATE:

## **ELIGIBILITY CRITERIA FOR ENLISTMENT OF VENDORS FOR ITEMS IN LIST-A.**

- 1) Vendor should have sufficient technical, manufacturing or operational capability to supply materials/services as per HOC's requirement.
- 2) Vendor must have executed orders of two times of the estimated annual contract value shown below, during the last three years period for similar items.
- 3) Vendor should have executed at least one order of 50% of the estimated contract value shown during the last three years for similar items.
- 4) The vendor shall submit a current Solvency Certificate from a scheduled bank worth minimum 25% of the estimated contract value.
- 5) Documentary evidence for all above parameters is to be furnished by the vendor along with their application. <u>MSME registered vendors</u> are exempted from furnishing the details against sl no 2, 3 and 4.

### ELIGIBILITY CRITERIA FOR ENLISTMENT OF VENDORS FOR SOLID PHOSPHORIC ACID ( SPA 1) CATALYST

- 1) The bidder should be a manufacturer or bonafide distributor of the manufacturer of the Catalysts.
- 2) The bidder should have supplied at least 160 MT of the SPA 1 catalyst during the past 3 year period to reputed manufacturers of Cumene using fixed bed reactors and having a minimum 1,00,000 TPA manufacturing capacity. Please enclose purchase order copies for the supply of the same from reputed manufacturers.
- 3) Please enclose performance evaluation certificate from the above manufacturers of Cumene indicating their manufacturing capacity and yield obtained for the Catalyst supplied by you for the last 3 year period.
- 4) You must guarantee a minimum yield of 1333 Kg. of Cumene per Kg of catalysts consumed. Corporate Guarantee valid for two years should be provided along with the technical bid documents.
- 5) You should be able to deliver the catalyst within 5 months of placement of the orders on you.
- 6) Bidders may confirm adherence to all the above points in your application with documentary evidence.

#### ELIGIBILITY CRITERIA FOR ENLISTMENT OF VENDORS FOR ITEMS IN LIST- B

Vendors desirous of enlistment for items given in LIST B should furnish details of their manufacturing/supply capabilities, Quality standards, List of reputed customers, Financial background, After sales service facilities, Performance certificates from reputed customers etc along with the Technical Bid format duly filled up.

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## LIST OF ITEMS FOR WHICH ENLISTMENT IS SOUGHT

		LIST A		
SI. No	Item description	Estimated Tender quantity	Estimated value	Technical specification/ requirements
1	M.S.Barrels	30,000 Nos/year.	4 .5 Crores	Annexure - I
2	HM-HDPE Carbouys 30 L / 50 L	20000 nos.	Rs.32 Lakhs	Annexure – II
3	Caustic Soda Lye	500 MT (100 % weight basis)/year.	Rs.1.3 crores	Annexure – III
4	Sulphuric Acid	540 MT.	Rs. 55 Lakhs.	Annexure – IV
5	2-Methylcyclohexylacetate (2 MCA).	18 MT/year.	Rs.35 Lakhs.	Annexure – V
6	2-Ethylanthrquinone (2 EAQ).	12 MT/year	Rs.50 Lakhs.	Annexure – VI
7	SPA1 Catalyst for Cumene Synthesis	80 MT/2 years	Rs 3.83 crores	Annexure-VII
8	Transportation of Hydrogen Peroxide in bulk in dedicated road tankers.	8000 MT/year	Rs. 42 Lakhs	Annexure-VIII
9	Transportation of Acetone in road tankers to Defence Factories at: Pune Bhandara Itarsi Aruvancadu.	140MT/year 800 MT/year 320 MT/year 1780 MT/year	Rs. 4 Lakhs Rs. 31 Lakhs Rs. 14 Lakhs Rs. 21 Lakhs.	Annexure - IX
10	Transportation of LSFO/FO from Irimpanam/ Willington Island	16500 MT/year	Rs. 31 Lakhs	Annexure - X

## LIST A

#### ANNEXURE I

#### SPECIFICATION OF M.S.DRUMS(M.S.BARRELS)

200/210 Ltrs. Nominal capacity M.S.Barrels fabricated out of 18G (1.25mm) nominal thickness CRCA sheets. Body seam electrically resistance welded. Both ends double seamed incorporating latex seaming compound. Top end fitted with one 50mm and one 20mm drum closures with gaskets. Body provided with 2 expanded rolling hoops. Externally finished with one coat of enamel paint. The barrels conform to BIS Specification No.IS-1783 (Part 1) 1993 Grade A with the following dimensions:

 Height
 : 843.0 +/- 3mm

 Internal dia
 : 572.0 +/- 2mm

 External dia
 : 592.0 +/- 2mm

Stenciling of HOCL emblem and Product details on the barrel to be done.

Phenol drums to be painted Olive Green and Acetone drums Cherry Red for easy identification.

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## ANNEXURE II (2 pages)

## <u>HM-HDPE CARBOUYS – 30 LTRS. CAPACITY</u> <u>SPECIFICAITON</u>

1) Type 2) Capacity	: Close headed rectangular stackable jerry cans
Brimful Useful 3) Dimensions	: 31.5 Ltrs. : 30 Ltrs.
Height (H) Width (W) Length(L) 4) Tare weights 5) Material	<ul> <li>: 430mm</li> <li>: 295mm</li> <li>: 335mm</li> <li>: 1.5 Kg.(Tested stack load 150 Kgs)</li> <li>: HM-HDPE (High Molecular Weight- High Density Polyethelene)</li> </ul>
6) Handles	: One, centre placed along the length of container embedded on top
7) Openings	
No. of openings	
Diameter (ID)	
Threads	: Buttress
Material of closu	re : HM-HDPE outer cap with LDPE/HDPE Inners (outer cap must be Red)
Sealing arranger 8) Colour 9) Standard	nent : Wire & lead seal/plastic seal (Red) : Blue with U.V.stabilizer : Tested as per IS 6312 & UNO/IMDG Code marked

10) Caps should be provided with venting with breather hole with GORTEX Membrane.

11) The colour of the can should be blue colour with red colour caps.

12) HOCL emblem, Product Name, UN No, Gross Weight, Nett Weight etc has to be screen printed on the can in yellow colour.

## <u>HM-HDPE CARBOUYS – 50 LTRS. CAPACITY</u> <u>SPECIFICAITON</u>

1) Type 2) Capacity	: Close headed elliptical jerry cans
Minimum Brimful	: 55 Ltrs.
Useful	: 50 Ltrs.
3) Dimensions	
5 ( )	: 560mm
	: 410mm
Length(L)	: 340mm
4) Tare weights	: 2.8 Kg.(Tested stack load 180 Kgs)
5) Material	: HM-HDPE (High Molecular Weight- High Density Polyethylene)
6) Handles	: Two at sides with Lugs & Rivets
7) Openings	_
No. of openings	: One
Diameter (ID)	: 46mm
Threads	: Buttress
Material of closure	: HM-HDPE outer cap with LDPE/HDPE Inserts (outer cap must be Red)
Sealing arrangemen	t: Wire & lead seal/plastic seal (Red)
8) Colour 9) Standard	<ul> <li>Blue with U.V.stabiliser</li> <li>Tested as per IS 6312 &amp; UNO/IMDG Code marked</li> </ul>

10) Caps should be provided with venting with breather hole with GORTEX Membrane.

11) The colour of the can should be blue colour with red colour caps.

12) HOCL emblem, Product Name, UN No, Gross Weight, Nett Weight etc has to be screen printed on the can in yellow colour.

## ANNEXURE III

## <u>Caustic soda lye</u>

Caustic soda lye rayon grade conforming to IS 252/1991(LATEST) with concentration 31% to 45% NaOH basis.

## **ANNEXURE IV**

## Sulphuric acid

Sulphuric acid purity (% W/W) minimum: 98%

## ANNEXURE V

## 2 METHYL CYCLOHEXYL-ACETATE(2MCA OR SEXTATE)

Appearance	: Clear colourless liquid
2MCA	: 98% (Min)
Alcohol as Methyl cyclohexanol	: 0.5%(Max)
Cyclohexyl Acetate	: 1.0%(Max)
Dimethyl Cyclohexyl Acetate	: 1% (Max)
Ketone as MCA	: 0.5% (Max)
Phenolics	: 0.05%(Max)
Unsaturated compounds as MCA	A : 0.1%(Max)
Waste	: Less than 0.1%
Residue on evaporation	: Less than 0.1%
Acid value	: 0.1 Mgs.KOH/gm.Max
Sulphur	: One ppm or less

Sample approval — Vendor to supply 2 kg free sample for approval on request.

#### ANNEXURE VI

#### **2 EHYL ANTHRA QUINONE (2-EAQ)**

- 1. Appearance : Solid Yellow Flakes
- 2. 2-EAQ contents : 98.5%(min)
- 3. Chloride : 40.0 ppm (max)
- 4. Iron : 5 ppm (max)
- 5. Sulphur : 10 ppm (max)
- 6. Toluene insoluble : 0.05% (max)
- 7. Melting point : 107.0-111.0C (Melting range 2.0C max)
- 8. Acidity, mg KOH/g : 0.05 (max)
- 9. Ash, % w/w : 0.05 (max)

Sample approval — Vendor to supply 2 kg free sample for approval on request.

## **ANNEXURE-VII**

## SOLID PHOSPHORIC ACID CATALYST (2 PAGES) FOR CUMENE SYNTHESIS

## BRIEF PROCESS DISCRIPTION / CUMENE REACTOR PARAMETERS

The reactor is an upflow reactor with four bed reactor with equal quantity of catalyst loaded in each bed.

SI.No.	Parameters	Specifications
1.	Colour (Pt-Co Scale), max.	15
2.	Relative Density at 15°C/15°C	0.8790-0.8860
3.	Solidification Point(°C) on dry basis, min.	5.40
4.	Distillation Range (°C) (including 80.1°C), max.	1.0
5.	Acid wash test, max.	No.1
6.	Purity by GC(wt %), min.	99.90
7.	Non-aromatics by GC(wt.ppm), max.	700
8.	Heavy Aromatics by GC (wt.ppm), max. (including Toluene 150 ppm max.) (Ref.ASTM D5871-07/IS:534-92 Specification)	300

## **SPECIFICATIONS OF BENZENE USED**

SI.No.	Parameters	Specifications
1	Appearance	Clear liquid, free of sediment or Haze @
		18.3 to 25.6 Deg.c
2	Colour (HU), max.	15
3	Purity by GC(Wt.%), min.	99.92
4	Other impurities by GC (Wt.%), max.	0.08
5	Bromine Index, max.	100
6	Phenols (ppm),max.	5
	(Ref.ASTM D-4077-07)	

## **REQUIRED CUMENE SPECIFICATION**

## PLEASE FURNISH THE FOLLOWING PARAMETERS OF THE CATALYST OFFERED BY YOU ALONG WITH THE APPLICATION..

Solid Phosphoric Acid Polymerisation catalysts for Cumene synthesis.

Technical specification of the catalyst should include the following :

- 1. Guaranteed Cumene yield per ton of catalyst per hour
- 2. -----full life
- 3. Required Liquid Hourly Space Velocity(LHSV)
- 4. Reactor operating pressure and temperature
- 5. Catalyst shape & size
- 6. Specified ratio of propylene to propane and propylene to Benzene
- 7. Feed stock specification
- 8. Hydration level
- 9. Propylene conversion
- 10. Selectivity to Cumene/ byproduct formation

## **ANNEXURE VIII**

## **REQUIREMENTS TO BE MET BY TRANSPORT CONTRACTORS INTERESTED IN CARRYING OUT TRANSPORTATION OF HYDROGEN PEROXIDE**

- 1. The transporter shall own minimum four road tankers of 10 MT capacity with tanks fabricated in SS-316L, pickled and passivated and ready in all respects to load and transport Hydrogen peroxide.
- 2. The tankers shall have valid Mechanical fitness certificates in Form-38 and 'Pollution under control' certificates.
- 3. At least two tankers shall have valid permits for transportation of product outside Kerala state.
- 4. The transport contractor shall have a local representative stationed at Cochin to coordinate the day to day transportation works with HOCL.
- 5. The road tankers shall be driven by drivers licensed to drive chemical tankers.
- 6. The transport contractor shall have a valid public liability insurance policy as per the Public liability insurance act to cover the public liability risks.
- 7. The tankers shall be dedicated for the Hydrogen peroxide transportation works of HOCL.
- 8. The road tankers shall be equipped with pumps and hoses for unloading of product at customer sites where pumps are not available.
- 9. The tankers shall be in a well maintained condition.
- **10.** The transport contractor shall have relevant work experience and financial capabilities as mentioned in the Eligibility Criteria.

11. The transport contractor shall not be blacklisted by any Government organization/ department.

## ANNEXURE-IX

## REQUIREMENTS TO BE MET BY TRANSPORT CONTRACTORS INTERESTED IN CARRYING OUT TRANSPORTATION OF ACETONE

- 1. The transport contractor shall own at least three road tankers with valid explosive license to transport Class A petroleum products defined under the Petroleum Act.
- 2. The tankers shall be of greater than 9 MT capacities.
- 3. The tankers shall have valid permits for transportation of product outside Kerala state.
- 4. The tankers shall be driven by drivers licensed to drive chemical tankers.
- 5. The transport contractor shall have a valid public liability insurance policy as per the Public liability Insurance Act to cover public liability risks. The tankers shall have valid Mechanical fitness certificates in Form-38 and 'Pollution under control certificates.
- 6. The tankers shall be in a well maintained condition.
- 7. The transporter shall have a local office in Ernakulam district for day to day coordination with HOCL.
- 8. The transport contractor shall have relevant work experience and financial capabilities as mentioned in the Eligibility Criteria
  - 9. The transport contractor shall not be blacklisted by any Government organization/ department.

## <u>ANNEXURE – X</u>

## REQUIREMENTS TO BE MET BY TRANSPORT CONTRACTORS INTERESTED IN CARRYING OUT TRANSPORTATION OF LSFO/FO FROM IRIMPANAM/ WILLINGTON ISLAND

- 1. The transporter should have adequate number of suitable road tankers at his disposal for the work.
- 2. The transport contractor shall have a local office in Ernakulam district to coordinate day to day transportation works with HOCL.
- 3. The transport contractor shall have relevant work experience and financial capabilities as mentioned in the Eligibility Criteria.
- 4. The transport contractor shall have a valid public liability insurance policy to cover any risks in transportation of hazardous product like Phenol.
- 5. The transport contractor shall not be blacklisted by any Government organization/ department.

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# LIST OF ITEMS FOR WHICH ENLISTMENT IS SOUGHT

## <u>LIST – `B'</u>

MAT101	OXYGEN ANALYSER
MAT102	ZIRCONIUM PROBE O2 ANALYSER
MAT103	HYDROGEN ANALYSER
MAT104	MOISTURE ANALYSER
MAT105	PH METER ANALYSERS
MAT106	ELECTRONIC TEST BENCH
MAT107	CONTROL VALVE
MAT108	MASS FLOW METER
MAT109	PANEL MOUNTED INSTRUMENTS
MAT110	ELECTROMAGNETIC FLOW METER
MAT111	MANOMETERS
MAT112	CONVERTERS
MAT113	ALARM ANNUNCIATOR
MAT114	CHLORINATORS
MAT115	PRESSURE SWITCHES
MAT116	GAS FLOW REGULATOR
MAT117	AIR FILTER REGULATOR
MAT118	UVDETECTOR
MAT119	ELECTRONIC D/P & PRE. TRANSMITTER
MAT120	PROCESS INST.SYSTEMS-DCS
MAT121	PROCESS SINGLE LOOP CONTROLLER
MAT122	FLAME PROOF JN BOXES
MAT123	LIMIT SWITCH
MAT124	THERMOMETERS
MAT125	TEMPERATURE INDICATOR
MAT126	RESISTANCE TEMP.DETECTOR
MAT127	THERMOCOUPLES & SPARES
MAT128	THERMOWELLS
MAT129	GLASS TUBE ROTAMETERS & SPARES
MAT130	METAL TUBE ROTAMETERS
MAT131	ORIFICE PLATE
MAT132	PRESSURE GAUGE TESTERS
MAT133	PRESSURE/RECEIVER GAUGE
MAT134	STANDARD PRESSURE GAUGE
MAT135	CAPACITANCE TYPE LEVEL SWITCHES
MAT136	FLOAT TYPE SERVO CONTROLLED LEVEL GAUGE
MAT137	DISPLACEMENT TYPE LEVEL TRANSMITTER

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Product Gr	* Product Group Description
MAT138	LEVEL SWITCHES
MAT139	INSTRUMENTATION FITTINGS
MAT140	THERMAL FUSES
MAT141	POWER CYLINDERS
MAT142	SOLENOID VALVES
MAT143	NEEDLE & BALL VALVE FOR INST.
MAT144	RELAYS, ELECTRICAL SWITCH GEAR
MAT145	CONTACTORS
MAT146	TIMERS
MAT147	MICRO SWITCHES
MAT148	FILTERS-INST
MAT149	FLOWMETERS
MAT150	SS & COPPER TUBE FOR INST.
MAT151	SIGNAL CABLES
MAT152	CALIBRATION GASES
MAT153	PENCIL TYPE PRE TRANSMITTER
MAT154	CONDUCTIVITY ANALYSERS
MAT155	INFRA RED ANALYSERS
MAT156	RECORDING CHARTS
MAT157	WATER METER
MAT158	PANELMOUNTED LOOP POWERED INDICATOR
MAT159	HIGH PURITY GAS
MAT160	ULTRASONIC LEVEL TRANSMITTER
MAT161	ADD ON CARDS
MAT162	ON/OFF BALL VALVE
MAT163	POLYURETHENE TUBE
MAT164	HEAD MOUNTED TEMP.TRANSMITTER
MAT165	SELF REGULATING VALVE
VAT166	TEST INSTRUMENTS
MAT167	ULTRASONIC FLOW METER
AT168	THERMAL MASSFLOW METER
/AT169	WEIGH SCALE/WEIGH BRIDGE
/AT170	FRP CABLE TRAY
/AT171	SOLENOID VALVE.STANDARDISED
/AT172	SAFETY BARRIER/SURGE PROTECTION DEVICE
IAT173	QUICK EXHAUST VALVE
1AT174	NUCLEONIC GAUGES
1AT175	CRITICAL CONTROL VALVE
IAT176	MAGNETIC LEVEL GAUGE
1AT177	RADAR TYPE LEVEL TRANSMITTER
1AT178	PNEUMATIC ACTUATORS
IAT179	POWER SUPPLY UNITS
IAT201	HOSES METALLIC
AT202	BEARINGS

Product Gr	Product Group Description	_	
MAT203	CAF GASKETS	_	
MAT204	SPIRAL WOUND GASKETS		
MAT205	WELDING ELECTRODES	_	
MAT206	GI, MS & SS WIRE MESH		
MAT207	SS, EN-8, ALLOY STEEL, BRONZE, BRASS		
MAT208	STUD BOLTS	_	
MAT209	TEFLON/VITON MATERIALS		
MAT210	TOOLS	_	
MAT211	REFRACTORY MATERIALS	_	
MAT212	STEAM TRAPS	_	
MAT213	VALVES (CS)	_	
MAT214	PIPE FITTINGS (CS & SS)		
MAT215	SEALANTS		
MAT216	HOSES RUBBER & PVC	_	
MAT217	GI PIPES & FITTINGS		
MAT218	MECHANICAL SEALS	_	
MAT219	HARDWARE ITEMS	_	
MAT220	PUMPS		
MAT2201	GASKET CAF - STYLE 59		
MAT2202	SPARES FOR IAC IV		
MAT2203	SEAL RING		
MAT2204	ANION & CATION RESINS	_	
MAT2205	COMPRESSOR SPARES - K.G.KHOSLA	_	
MAT2206	COMPRESSOR SPARES - CHICAGO PNEUMATIC	_	
MAT2207	COMPRESSOR SPARES - COMPAIR REAVELL		
MAT2208	COMPRESSOR SPARES - DRESSER RAND		
MAT2209	V-BELT	_	
MAT221	SULPHURIC ACID FILTER	-	
MAT2210	WATER TREATMENT MATERIALS	_	
MAT2211	SPARES FOR MECHANICAL SEAL-FLOWSERVE	_	
MAT2212	ANEMOMETER	_	
MAT2213	DIAPHRAGM FOR DIAPHRAGM VALVE	_	
MAT2214	LYE COOLER GASKET	_	
MAT2215	CPP ENGINE SPARES	_	
MAT2216	KOYO TORRINGTON BEARINGS	-	
MAT2217	PRESSURE SAFETY VALVES	_	
/AT2218	ACTIVATED ALUMINA	-	
/AT2219	CRANK SHAFT DEFLECTION GAUGE	_	
/AT222	TRAY SPARES	_	
/AT223	G.I.WIRE ROPE	-	
/AT224	FILTERS - MECH	_	
/AT225	STRAINERS	_	
IAT226	METALLIC/NON METAL GASKETS	_	
/AT227	CS & SS PIPES		

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1	Product Group Description
	MINERAL WOOL MATTRESS
	DEMISTER PAD
1	BUTTERFLY & WAFER CHECK VALVES
1	COUPLING SHIMS
	DISHED ENDS FOR VESSELS
ļ	GEAR PUMP
	NEOPRENE RUBBER GASKET SHEETS
	PVC/FRP CAD TANK
	SPARES FOR PLASMA CUTTING MACHINE
	ALUMINIUM SHEET
	MOISTURE TRAP FOR AIR
	S.S.TUBES FOR EXCHANGERS
ļ	CPCV PIPES
	FRP ITMES
1	POLYESTER DUPLEX WEBBING SLINGS
	CIVALVES
	GEAR COUPLING
ļ	SCAFFOLDING MATERIALS
ļ	GEAR BOXES/GEARED MOTORS
ļ	ECONOMISER COILS
ļ	SS BELLOWS
ļ	SCREW AIR COMPRESSOR
۰.	LOADING ARM
ļ	BOILER SUIT
ļ	CPP DIGITAL GOVERNOR
٠	GRINDING MACHINE
	PLASTIC PALLETS
	CI PIPE FITTINGS
	AMAFILTER OR EQVT
ſ	ERW PIPE

14141200	PVC/FRP CAD TANK	
MAT236	SPARES FOR PLASMA CUTTING MACHINE	
MAT237	ALUMINIUM SHEET	_
MAT238	MOISTURE TRAP FOR AIR	_
MAT239	S.S.TUBES FOR EXCHANGERS	
MAT240	CPCV PIPES	
MAT241	FRP ITMES	
MAT242	POLYESTER DUPLEX WEBBING SLINGS	
MAT243	CI VALVES	
MAT244	GEAR COUPLING	
MAT245	SCAFFOLDING MATERIALS	
MAT246	GEAR BOXES/GEARED MOTORS	
MAT247	ECONOMISER COILS	
MAT248	SS BELLOWS	_
MAT249	SCREW AIR COMPRESSOR	_
MAT250	LOADING ARM	
MAT251	BOILER SUIT	
MAT252	CPP DIGITAL GOVERNOR	
MAT253	GRINDING MACHINE	
MAT254	PLASTIC PALLETS	
MAT255	CI PIPE FITTINGS	
MAT256	AMAFILTER OR EQVT	_
MAT257	ERW PIPE	_
MAT258	PUMP SPARES (DEVELOPED)	_
MAT259	INSULATING FIRE BRICK & AIR SETTING(EIL)	
MAT260	REFRACTIRY FIRE BRICK(EIL)	_
MAT261	INSULATING CASTABLE(EIL)	
MAT262	CALCIUM SILICATE BLOCKS(EIL)	_
MAT263	HARDWARE ITEMS FOR HOT OIL(EIL)	_
MAT264	CERAMIC FIBRE BLANKET	_
MAT265	BANIAN WASTE	
MAT266	WD40/RUSTLICK	_
MAT267	ANTI CORROSION TAPE	_
MAT268	BELZONA METALS	-
MAT269	HEAVY DUTY INDL TOOLS/MACHINE TOOLS	
MAT270	MINOR FABRICATION WORKS	_

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TUBE BUNDLE ASSEMBLY

MAT271

Product Gr

**MAT228** 

MAT229

MAT230 MAT231 MAT232

MAT233

**MAT234** 

MAT235

Product Gr	Product Group Description
MAT272	METERING PUMP
MAT273	CAMERA, LCD PROJECTOR, DIGITAL PHOTOGRAPHY
MAT274	LOVEJOY COUPLING & SPIDERS
MAT275	ACTIVATED ALUMINA BALLS
MAT276	DELUGE VALVES
MAT277	PORTABLE THICKNESS GAUGE
MAT278	HIGH PRESSURE CLEANING JET PUMP/EQP
MAT279	WEBBING SLINGS
MAT280	THIRD PARTY INSPECTION
MAT281	ALUMINIUM BOARDS
MAT282	GATE, GLOBE & CHECK VALVES(SS)
MAT283	BALL VALVES
MAT284	NEEDLE VALVES
MAT285	DIAPHRAM VALVES
MAT286	MOTORISED HYDRAULIC PRESS
MAT287	AIR COMPRESSOR
MAT288	THERMAL IMAGING CAMERA
MAT289	RELATIVE HUMIDITY, MOISTURE ANALYSER
MAT290	EDUCTOR
MAT291	ELLIOT COMPRESSOR SPARES
MAT292	100% EXPANDABLE PTFE TAPE
MAT293	SPARES FOR IAC III
MAT294	PRESSURE/VACUUM VENT VALVES
MAT295	ZMMOBILGARD
MAT296	HDPE PIPES AND FITTINGS
MAT297	SPARES FOR ROLLER IN DRUM FILLING STATION
MAT298	GLAND PACKINGS
MAT299	'U' TUBE FOR EXCHANGERS
MAT300	GAUGE GLASS
MAT301	HRCFUSE,STARTER,TIMER,CONTACTOR
MAT302	LIGHT FITTINGS
MAT303	FLAMEPROOF EQUIPMENT
MAT304	TELEPHONE CABLE
MAT305	TELEPHONE(PUSH BUTTON)
/AT306	MOTOROLA SPARES
/AT307	CABLES
/AT308	ELECTRICAL MEASURING INST.
/AT309	CEILING FAN, EXHAUST FAN
/AT310	BCH DEALERS
/AT311	L & T DEALERS
/AT312	SIEMENS DEALERS
/AT313	ENGLISH ELECTRIC DEALER
/AT314	TELEPHONESPARES/ACCESSORIES
/AT315	SILICAGEL,TSP,CITRIC ACID

Product Gr	Product Group Description
MAT316	ELECTRIC MOTORS & SPARES
MAT317	TRANSFORMER OIL
MAT318	BHARAT BIJLEE DEALERS
MAT319	HEAT TRACING COIL
MAT320	STAY WIRE
MAT321	CURRENT TRANSFORMER
MAT322	CONTROL TRANSFORMER
MAT323	EXIDE BATTERY DEALERS
MAT324	POWER & ENERGY METER
MAT325	VARIABLE FREQUENCY DRIVE(VFD)
MAT326	HRC FUSES-GENERAL
MAT327	LED INDICATION LAMP
MAT328	UPS
MAT329	UPS UPTO 500KVA
MAT330	ENERGY EFFL.LIGHTING SYS.
MAT331	VOLTAGE STABILIZER
MAT332	HEATING ELEMENT
MAT333	FLAMEPROOF TELEPHONE
MAT334	AIR CONDITIONERS
MAT335	EPABX SYSTEM
MAT336	BATTERY CHARGER
MAT337	H.T CABLE
MAT338	COPPER STRIP, BUSBAR, WIRE ETC
MAT339	SAFETY RUBBER MAT
MAT340	KRONE CONNECTORS
MAT341	SPARE TRANSFORMER BUSH
MAT342	BOCB SPARES
MAT343	SILICAGEL BREATHER
MAT344	TURBO VENTILATOR
MAT345	LOUD SPEAKER UNIT
WAT346	ABB SPARES
VAT347	HIGH VOLTAGE CURRENT TRANSFORMER
MAT348	INDUSTRIAL GAS
MAT349	OIL & WINDING TEMP INDICATOR
MAT350	EPABX BATTERY
MAT351	HEAT SHRINKABLE CABLE JOINTING KIT
MAT352	LED LAMP
/AT353	VCB
/AT354	TUBULAR LEAD ACID BATTERY
/AT355	PLUGS
/AT356	COOLING FAN
/AT357	SMF BATTERY
/AT358	BUCHHOLTZ RELAY
/AT359	HT LIGHTNING ARRESTOR

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Product Gr	Product Group Description	
MAT360	CAPACITOR	
MAT361	ISOLATOR-66KV	
MAT362	MOTOR STARTER	
MAT363	TRANSFORMER RADIATOR	
MAT364	LT DOUBLE DOOR FEEDER PILLAR PANEL	
MAT365	ACRYLIC SHEET	
MAT401	FOAM COMPOUND(AFFF&ATC)	
MAT402	PERSONAL PROTECTIVE EQPT	
MAT403	FIRE HOSE & FITTINGS	
MAT404	DRY CHEMICAL POWDER	
MAT405	FIRE FIGHTING EQUIPMENTS	
MAT406	SAFETY SHOES	
MAT407	SAFETY HELMET	
MAT408	FIRE FIGHTING EQPT SPARES	
MAT409	SAFETY BA SET, FIRE ENTRY SUIT	
MAT410	PVC SUIT, CANISTER MASK, WATER JEL	
MAT411	HYDROCARBON DETECTOR/PORTABLE GAS	
MAT412	TYRES & TUBES	
MAT413	FIRE WATER PUMP	
MAT414	PRESSURE TESTING	
MAT415	FIRE DETECTION & CONTROL SYSTEMS	
MAT416	PORTABLE PUMP SET	
MAT417	FIRE EXTINGUISHERS	
MAT418	FULL BODY SAFETY HARNESS WITH LANYARD	
MAT419	COTTON/WORK GLOVES	
MAT420	GAS TIGHT CHEMICAL PROTECTIVE SUIT	
MAT421	BOD,COD & TSS ANALYZER	
MAT501	MATL.HANDLING EQPT.	
MAT502	SLOTTED ANGLE RACKS	
MAT503	GLASS WARES	
MAT504	STRUCTURAL STEEL DEALERS	
MAT505	PHMETER	
MAT506	SYRINGES FOR HPLC	
MAT507	HEAT MANTLE/HOT PLATE/WATER BATH	
MAT508	STATIONERY	
MAT509	PREPRINTED COMPUTER STATIONARY	
MAT510	CEMENT	
MAT511	BICYCLE	
MAT512	HPLC COLUMN	
MAT513	CONSUMABLE FOR COMPUTER	
MAT514	UREA	
MAT515	MOULDED CHAIRS	
MAT516	TARPAULIN	
/IAT517	MODERATE QUALITY PRINTING	

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Product Gr	Product Group Description
MAT518	GC GAS FILTER
MAT519	CHEMICALS
MAT520	GAS REGULATOR
MAT521	VACUUM PUMP
MAT522	ANALYTICAL BALANCE
MAT523	GAS SAMPLING BOMB
MAT524	ALUMINIUM CAPS
MAT525	BREATH ANALYSER
MAT526	OVEN
MAT527	SANITARY ITEMS
MAT528	STANDARD TEST WEIGHT
MAT529	ACTIVATED ALUMINA
MAT530	COFFEE/TEA VENDING MACHINE
MAT531	UNIFORM SAREES
MAT532	SOAP SOLUTION
MAT533	MODEM
MAT534	WOOD SCANDLINGS
MAT535	AMMONIA
MAT536	SHRINK PACKINGS & LABELS
MAT537	AUTOMOBILE SPARES
MAT538	UNIFORM SHIRTING & SUITING
MAT539	SGE SYRINGE
MAT540	PERSONAL COMPUTER
MAT541	PRINTER
MAT542	M.S OFFICE
MAT543	DELL COMPUTERS
MAT544	PHOTO/FAX MACHINE
MAT545	HIGH QUALITY PRINTING
MAT546	VACUUM CLEANER
MAT547	HDPE SAMPLE BOTTLE
MAT548	REFRIGERATOR
MAT549	WHITE BOARD
MAT550	LCD PROJECTORS
MAT551	LAPTOP
/AT552	PLYWOODS
/AT553	PAPER SHREDDERS/SPIRAL BINDING
/AT554	WATER PURIFIER
/AT555	CONSUMABLES FOR COFFEE VENDING M/C
/AT556	CAP SEALING MACHINE
/AT557	FUME HOOD
/AT558	MEDICINES
AT559	RAIN COAT
/AT560	WET GRINDER
AT561	COMPUTER SYSTEM

Product Gr	Product Group Description
MAT562	PHOTOCOPYING PAPER
MAT563	SPECTROPHOTOMETER
MAT564	STANDARDISED LIST FOR PH/CONDUCTIVITY/TURBIDITY METER
MAT565	CONDUCTIVITY METER
MAT566	FILE COVER
MAT567	FIREWALL DEVICE
MAT568	AMBER COLOURED BOTTLE
MAT569	WOOD CUTTING CHAIN SAW.
MAT601	M.S.BARRELS
MAT602	MONOSODIUM PHOSPHATE
MAT603	CAUSTIC SODA LYE
MAT604	SULPHURIC ACID
MAT605	SPA-1 CATALYST
MAT606	PF-4 CATALYST
MAT607	HEAT TRANSFER FLUID
MAT608	CATALYST SUPPORT MATERIAL
MAT609	CAP SEALS
MAT610	ACTIVATED CARBON
MAT611	CAUSTIC SODA FLAKES
MAT612	TRISODIUM PHOSPHATE
MAT613	HM-HDPE CANS
MAT614	POTASSIUM HYDROXIDE PELLETS
MAT615	NITRIC ACID
MAT616	LIME
MAT617	BENZENE
MAT618	PLASTIC SEAL
MAT619	LSFO
MAT620	IMPORT CUMENE
MAT621	IMPORT BENZENE
MAT622	2-MCA
MAT623	2EAQ
MAT624	CAP SEALING PLIER
/AT625	SC150 OR EQVT
/AT626	SURVEYORS
/AT627	TPT OF LSFO
/AT628	TPT OF BENZENE FROM W.I. TO HOCL
/AT629	COOLING WATER CHEMICALS
/AT630	TPT OF BENZENE FROM BPCL MUMBAI
IAT631	LOCAL TPT OF VARIOUS ITEMS
1AT632	TYRE RETREADING
IAT633	DISPOSAL OF CPP SLUDGE/WASTE OIL
IAT634	STORAGE TANKS AT W.ISLAND
1AT635	PALL RINGS
1AT636	TPT OF SULPHURIC ACID

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Product Gr	Product Group Description	
MAT637	SEALING WIRE	
MAT638	CHLORINE	
MAT639	EMPTY CHLORINE CYLINDER	