

# HINDUSTHAN CHEMICALS COMPANY

(An enterprise of THE HINDUSTHAN GROUP)

CIN: U93000WB1998PLC086303

G.I.D.C. Industrial Estate, Olpad - 394540, DIST SURAT, GUJARAT (INDIA) Email: hccolp@hcc-cyanides.com TELEPHONE: 02621-221681 to 221683, M: 9978444894, 9978444895 Telefax: 02621-221235

F: HCC:TECH: 17: RPS/55

5th July, 2021

To,
The Additional Director,
Ministry of Environment & Forest,
Regional Office (Western Region),
Kendriya Paryavaran Bhavan, E-5, Ravishankar Nagar,

Bhopal- 462 016

Sub: Submission of Six Monthly Environmental Clearance Compliance Report for M/s. Hindusthan Chemicals Company (Formerly known as Cyanides & Chemicals Company).

Ref: Environmental Clearance No. J-11011/466/2011-IA II (I) dated 13/03/2020

Respected Sir,

With reference to above Environmental Clearance order, we are submitting herewith point wise compliance report of said Environmental Clearance for the period of **December 2020 to May 2021** We hope to have satisfied from us & do needful at your end & oblige us.

Thanking You,

Yours faithfully,

For, Hindusthan Chemicals Company

R P Sharma

**Asst. Vice President (Plant)** 

Encl: As below

C.C to

1) The Chairman, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector – 10A, Gandhinagar – 382 010

2) The Chairman,

Central Pollution Control Board Parivesh Bhavan,

Opp. VMC Ward Office no. 10, Subhanpura Road, Vadodara - 390 023

3) The Regional Officer

**Gujarat Pollution Control Board** 

388, Belgium Square, Typical First Floor, Silver Plaza Complex,

Near Linear Bus Stand, Ring Road, Surat - 395003

G.P.C. Board

SURAT.

RECHICOPY

Sign 12/07/21



EG606439627IN IVR:6971606439627 SPP SURAT RMS COUNTER <395003> Counter No:1,12/07/2021,18:29 To:THE CHAIRMAN,CENTRAL POLLUTIO PIN:390023, Subhanpura SO From:M/S HINDUST,ASNABAD OLPAD Wt:950gms

Amt:76.70(Cash)Tax:11.70

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### HINDUSTHAN CHEMICALS COMPANY

GIDC OLPAD, TALUKA: OLPAD, DIST: SURAT, GUJARAT

# Six Monthly Environmental Compliance Report (From December 2020 to May 2021)

## Prepared by:

# M/s. EARTHCARE ENVIRO SOLUTIONS PVT. LTD.

Moradia House, Plot No.: 31-32, Shiv Ashish Industrial Estate Co.Op.Society-II, Opp. SMC Community Hall, B/h. Raj Carrying Cargo Pvt. Ltd. Near Chosath Jogni Mata Mandir, South Zone Road, Udhna, Surat-394210 E-mail: office@earthcare.org.in / info@earthcare.org.in

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17.	List of Hazardous chemicals stored & use.
18.	CSR Activities
19.	EC intimation to Panchayat

### MEMBERS ASSOCIATED WITH REPORT

**Project Proponent** 

Mr. A. K. Singh (Executive Director Technical)

Team leader

Mr. Suresh Moradia (Director - Earthcare Enviro Solutions Pvt. Ltd.)

Team Member (EESPL):

Environmental Monitoring & Data Collection : Team Leader – Mr. Chirag Dhaduk

Team Member –1. Mr. Kenu Tailor

2. Mr. Rahul Vankar

Sample Analysis : Lab. Incharge – Ms. Kinjal Nariya Chemist – 1. Ms. Riddhi

Report Preparation By: Mr. Nikit Jain Report Checked By: Mr. Hardik Moradiya Report Approved By: Mr. Suresh Moradia

#### INTRODUCTION

Hindusthan Engineering & Industries Ltd. (HEIL) (previously Hindusthan Development Corporation) was set up in 1944 with track materials plant at Tiljala. In the year 1964, Sri R. P. Mody acquired the company which had only one plant at Tiljala producing fabricated points, switches and turnouts, steel sleepers andother railway track components. The company witnessed aggressive and all round growth in 1970's whenthe expansion in the Indian Railways took place for industrialization in the country. HEIL became the majorsupplier of railway track materials and enjoyed a major market share with Indian Railways. In tune with thedemand of economic growth, HEIL continued its thrust on further diversification and in the process eitheracquired existing projects in the Core Sector or set up Greenfield Projects in a wide spectrum of industrialactivities. HEIL acquired a Wagon Building Plant at Santragachi while a Green field Project formanufacture of Cyanide and Calcined Petroleum Coke was established in Olpad in the state of Gujarat & Haldia in the state of West Bengal, respectively.

The company was also in the forefront for bringing state of the art technology from global leaders for thebenefit of the Indian Economy. It has brought to India CMS Crossings tie-up with Bethlehem Steel Corporation, USA, Steel Wire tie-up with Kokon Company, Japan, Electro Porcelain tie-up with ReinsinchWerke, Germany, Calcium Coke Calcination from Alcom International, Canada. During this period, HEILwas instrumental in providing a vision for globalization in the areas of its operation. HEIL made rapidinroads in the International Market with its products. HEIL products viz. Steel Castings Cyanides, Trackmaterials found ready acceptance all over the world. HEIL developed a parallel export market for many ofits products.

With the spread of globalization and emergence of fierce competition, HEIL realized the need to restructureand is in the process of reorienting its priorities to become a cost effective, customer friendly industrialconglomerate with focus on Research & Development. The Govt. of India has recognized its Research and Development Cell in the Steel foundry as an accredited Research and Development Center for carrying outall the research in the areas of Steel Castings. In the domestic market, HEIL primarily caters to Indian Railways, Ministry of Defence and other Public Sector undertakings. HEIL is the market leader in the area it operates. HEIL is the sole supplier of special containers to CONCOR for the last ten years and no otherIndian Company can claim this unique distinction.

#### **Quality Policy:**

"It is the quality policy of HEIL's Points & Crossing, Steel Sleeper and wagon division to provide products that satisfy the customer quality requirements. It strives to achieve and maintain excellence through development and absorption of appropriate technologies." - Mr. A. K. Singh (Executive Director Technical)

#### **Achievements:**

HEIL has received prestigious export order worth \$18 Crores from a USA based company for supply of Steel Castings. The company has also been receiving Export Excellence Awards given by the Ministry of Commerce, Government of India for the last 8 years in a row. We have received the Export Excellence Award for the year 2001-02 from Shri Arun Jaitley, Honorable Minister of Commerce in New Delhi on 26th September 2003. In India very few companies can claim the distinction of receiving Export Excellence Awards for 8 years in a row.

#### Hindusthan Chemicals Company (HCC) - Project Proponent Unit

Hindusthan Chemical Company, formerly known as Cyanides & Chemicals Company, is a unit of HEIL. The unit was set up in the year 1982 in GIDC Industrial Estate at Olpad Taluka of Surat District in GujaratState. The unit is engaged in manufacture of Hydrogen Cyanide (HCN) and Cyanide based products. Theunique feature of the HCN manufacturing technology is that the whole system of manufacturing process isworking under vacuum hence in any case hazardous gas is not released-out into the atmosphere from theproduction system. The unit manufactured Sodium Cyanide and Potassium Cyanide for the first time in ourcountry. Thus the unit is pioneer in manufacture of HCN and its derivatives in India. The unit is primarily engaged in the manufacturing of Hydrogen cyanide, Sodium Cyanide, PotassiumCyanide, Sodium/Potassium Ferro Cyanide, Diphenyl Guanidine, Heat Treatment Salt, Sodium Dicyanamide, Cyanohydrins, Nitriles, Cyanide based products, Mandelonitrile and Natural Gas basedCaptive Power Plant. The present sales turnover of HCC is approximately Rs. 80.49 Crore. We are currently exporting different types of cyanide derivatives to countries like Zimbabwe, Thailand, Indonesia, Morocco etc. Exports account for around Rs. is NIL (from December 2020 to May-2021) of the total turnover of the Unit.

#### **DATASHEET**

1.	Project Type: River-	Industry
	valley/Mining/Industry/Thermal/Nuclear /Other (Specify)	Project category – 5 (b) "A"
2.	Name of the Project	M/s. Hindusthan Chemicals Company
3.	Clearance letter (s)/OM No. and date	EC order No. J-11011/466/2011-IA II (I) Dated 13/03/2020
4.	Location: a)District(s) b) State(s) c) Location Latitude/Longitude	Plot No. 26-37, 54-57, 122, 143, Village: Asnabad, Tehsil: Olpad, Dist: Surat, State: Gujarat.  Latitude: 21 <sup>0</sup> 19'8.40" N Longitude: 72 <sup>0</sup> 45'3.73" E
5.	Address for correspondence a) Address of the Concerned Project chief Engineer(with pin code & telephone/telex/fax numbers)	Mr. A. K. Singh (Executive Director Technical) Hindusthan Chemicals Company, GIDC Industrial Estate, Olpad – 394 540 District: Surat, Gujarat. Phone: 02621 221681-83, 324222 Fax: 02621-221235 E-mail: aks@hcc-cyanides.com
	b) Address of the ExecutiveProject Engineer /Manager (with pin code & telephone/telex/fax numbers)	As Above
6.	Salient features a) Of the project	Salient feature of the project and EMP is enclosed at <b>Annexure-1</b> .
	b) Of the Environmental management plans	<ul> <li>The whole plant is working under vacuum and all vents are connected to the incinerator.</li> <li>We have full-fledged Effluent Treatment Plants (2 Nos.) for the treatment of cyanide contaminated effluent and high TDS effluent with adequate capacity.</li> <li>We have implemented Zero Liquid Discharge scheme from 1st April, 2016 with waste minimization for the existing ETP plants.</li> <li>We have a valid membership of TSDF site — NECL, Nandesari and BEIL, Ankleshwar/Dahej for incineration,</li> </ul>



		treatment and disposal of hazardous
7.	Breakup of the project area	<ul> <li>waste&amp; landfill waste.</li> <li>We have developed greenbelt area which is approx. 45% of the total plot area.</li> <li>We have facility for in-house monitoring and analysis of effluent and air pollutant parameters.</li> <li>Environmental Audit and Environment Monitoring through third party are being conducted regularly.</li> <li>Total Land: 2,04,995 m²</li> </ul>
		Green Belt Area: 92,247 m <sup>2</sup>
	a) Submergence area: forest & non- Forest	Not Applicable (NA)
	b) Others	NA
8.	Breakup of the project affected population with enumeration of those losing houses/dwelling units (only agricultural land, both dwelling units & agricultural land) SC/ST/Adivasi a) Others (Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out give details & year of survey)	Not Applicable.
9.	Financial details: Project cost as originally planned and subsequent revised estimates and the year of price reference a) Allocation made for environmental management plans with item wise and year wise break-up b) Benefit cost ratio/Internal rate of return and the year of assessment c) Whether it includes the cost of environmental management as shown in the above d) Actual expenditure incurred on the project so far e) Actual expenditure incurred on the environmental management plans so far	Project Cost: <b>Rs. 202.50 Crores</b> Allocation made for environmental management plans with item-wise & year wise break up is attached as per <b>Annexure – 2</b> .
10.	Forest land requirement	Not Applicable.



11.	<ul> <li>a) The status of approval for diversion of forest land for non-forestry use</li> <li>b) The status of clearing felling</li> <li>c) The status of compensatory afforestation, if any</li> <li>d) Comments on the viability &amp; sustainability of compensatory afforestation program in the light of actual field experience so far</li> <li>The status of clear felling in non-forest</li> </ul>	Not Applicable.
35	areas (Such as submergence area or reservoir, approach roads.), if any with quantitative information required.	пот друповые.
12.	Status of Construction (Actual &/or planned) a) Date of commencement (Actual &/or planned) b) Date of completion (Actual &/or planned)	This expansion project is on hold due to covid- 19 effect.
13.	Reason for the delay If the project is yet to Start.	This expansion project is on hold due to covid- 19 effect.
14.	Dates of site visits a. The dates on which the project was monitored by the Regional office on previous occasion, if any b. Date of site visit for this monitoring report	01/01/2021  Visit Notice of GPCB are attached as  Annexure – 3. (Analysis results-Not Available)  Date of visit notice is mention in attached annexure.
15.	Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits (The first manufacturing report may contain the details of all the letters issued so far, but the letter reports may cover only the letters issued subsequently)	Last Six Monthly Reports (December-2020 to May- 2021) was submitted.  Form-V-Environmental Audit Statement for the financial year 2020- 2021 was submitted to GPCB. Copy of the same is attached as Annexure - 4.





ENVIRONMENTAL CLEARANCE (EC) BY MOEF&CC, NEW DELHI F.No. J-11011/466/2011-IA II (I) dated 13/03/2020



# F. No. J-11011/466/2011- IA II(I) Government of India Ministry of Environment, Forest and Climate Change (IA-IISection)

Indira Paryavaran Bhawan Jorbagh Road, New Delhi - 3

Dated: 13th March, 2020

To

M/s Hindustan Chemicals Company Ltd Plot No.26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District <u>Surat</u> (Gujarat)

Sub: Manufacturing of Sodium Cyanide Other Cyanide based products by M/s Hindustan Chemicals Company Ltd at Plot No.26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat (Gujarat) - Environmental Clearance - reg.

Sir,

This proposal was considered by the Ministry for grant of environmental clearance as per the direction of Hon'ble National Green Tribunal (Western Zone) Bench, Pune vide order dated 7<sup>th</sup> December, 2017 in Appeal No.17/2016 (WZ) in the matter of 'Gujarat Khedut Samaj & othrs Vs MoEF&CC & othrs. The Hon'ble NGT vide order dated 7<sup>th</sup> December, 2017 has set aside the EC dated 22<sup>nd</sup> January, 2016 and directed to EAC and Ministry to give recommendation and take decision in accordance with law.

- 2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for Manufacturing of Sodium Cyanide & other Cyanide based products by M/s Hindustan Chemicals Company Ltd located at Plot No.26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat (Gujarat).
- 3. List of existing and proposed products is as under:

S. No.	Product	Existing MT/Annum	Proposed MT/Annum	Total MT/Annum
1	Hydrogen Cyanide	5100		5100
2	Sodium Cyanide	6372	15000	21372
3	Potassium Cyanide	2000		2000
4	Sodium / Potassium Ferro Cyanide	1000	-	1000
5	Diphenyl Guanidine	1260	-	1260
6	Sodium Dicyanide	300		300
7	Mandelonitrile	2500	-	2500
8	Heat Treatment Salt	720	-	720
9	Cyanohydrines	5000	2000	7000
10	Nitriles	3000	300	3300
11	Cyanide Based Products	3500	6300	9800
	Total	30752	23600	54352

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12	Ammonium Sulphate (By-product)	2649	-	2649
13	NG based CPP	2 MW	øh.	2 MW

**Bifurcation of Product List** 

s. No.	Product	Existing MT/Annum	Proposed MT/Annum	Total MT/Annum
1.	Hydrogen Cyanide	5100		5100
2	Sodium Cyanide	6372	15000	21372
3	Potassium Cyanide	2000	-	2000
4	Sodium Ferro Cyanide	1000	-	1000
5	Potassium Ferro Cyanide			
6	Diphenyl Guanidine	1260		1260
7	Sodium Dicyanide	300	-	300
8	Mandelonitrile	2500		2500
9	Heat Treatment Salt	720	-	720
10	Cyanohydrines Group		,	1
i()	Meta Phenoxy Benzaldehyde Cyanohydrin (MPBAD Cyanohydrin) Formaldehyde Cyanohydrin	5000	-	5000
	(Glycolonitrile)			
111)	Acetone Cyanohydrin			
iv)	Methyl Ethyl Ketone Cyanohydrin			
v)	Acetaldehyde Cyanohydrin (Lactonitrile)			ľ
vi)	Para Anisaldehyde Cyanohydrin	]		
vii)	Cyclohexanone Cyanohydrin	1		
viii)	Methyl Propyl Ketone Cyanohydrin			
ix)	Methyl Mercapto Butyronitrile (Methyl MercaptgoPropopnaldehyde Cyanohydrin)			
×)	Cyclo Pentanone Cyanohydrin	/	500	500
xi)	2-Chloro Benzaldehyde Cyanohydrin (2-Chloro Mandelonitrile)	-	500	500
(XII)	Ortho Tolyl Benzaldehyde Cyanohydrin (Ortho Tolyl Mandelonitrile)	-	1000	1000
	Total of Cyanohydrines Group	5000	2000	7000
11	Nitriles Group			
i)	Isophoron Nitrile	3000	-	3000
II)	Imino Diacetonitrile			
III)	Succinonitrile			1
iv)	3-Hydroxy Propionitrile			

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v)	Methyl Amino Acetonitrile Hydrochloride	-		
vi)	Methylene Amino Aceto Nitrile (MAAN)	***	300	300
	Total of Nitriles Group	3000	300	3300
12	Cyanide Based Products			
i)	Sodium Cyano Acetate	3500	_	3500
II)	Cyanamide (Crystals & Aqueous Solution)			
III)	Para Anisaldehyde Cyanohydrin			
iv)	DiorthoTolyl Guanidine (DOTG)			
V)	Zinc Cyanide	-	300	300
vi)	Isophoron Diamine	-	6000	6000
	Total of Cyanide Based Products	3500	6300	9800
	Total	30752	23600	54352
13	NG Based CPP	2 MW		2 MW
14	Ammonia Sulphate (By- Product)	2649		2649

- **4.** Total land area is 204995 sqm. Industry will develop greenbelt in 33% area of the total project area.
- **5.** There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, etc. within 10 km from the project site. Tapi River flows at a distance of 9.5 km.
- **6.** The project/activity is covered under category A of item 5(b) 'Pesticides industry and pesticide specific intermediates (excluding formulation)' of Schedule of Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.
- 7. The ToR for the project was granted on 17<sup>th</sup> February, 2012 and the public hearing was conducted on 14<sup>th</sup> November, 2014 by the Gujarat Pollution Control Board. However, the proposal for environmental clearance was appraised by the EAC, considering the project site located in notified industrial area (Olpad Industrial Area) and thus exempting from public consultation/hearing. The EC dated 22<sup>nd</sup> January, 2016 granted to the project finds mention that public consultation/hearing was exempted as per section 7(i), III stage (3) Para (i)(b) of the EIA Notification, 2006.
- **8.** As per the direction of Hon'ble NGT vide order dated 7<sup>th</sup> December, 2017 and subsequent approval of the Ministry the proposal was considered by the Expert Appraisal Committee (Industry-2) in its meetings held during 27-28 March, 2018, 24-26 April, 2018, 25-27 June, 2018, 27-29 August, 2018 and 29-31 October, 2018 in the Ministry, wherein the EAC recommended the proposed expansion project for grant of environmental clearance.
- **9.** The proposal was further examined in the Ministry and the project proponent submitted an undertaking and declared that the Sodium Cyanide manufactured by them shall not be used as insecticidal purpose nor it shall be used for manufacturing of banned pesticide mentioned in the Notification issued on 18<sup>th</sup> August, 2018 by the Ministry of Agriculture & Farmers Welfare.

For M/s Hindustan Chemicals Company Ltd

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- 10. The project proponent also confirmed that they will ensure that the customers to whom they sell their Sodium Cyanide shall not use it for insecticidal purpose nor their end use shall be for insecticidal purpose and they shall not use it for manufacturing of pesticide. The project proponent has also submitted the list of buyers and undertaking from them in this regard.
- 11. The proponent has also submitted the import permit for Sodium Cyanide issued by Secretary, Central Insecticide Board and Registration Committee on dated 11<sup>th</sup> January, 2019.
- 12. Based on the proposal submitted by the project proponent, recommendations of the EAC (Industry-2) and further examination in the Ministry, the Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for Manufacturing of Sodium Cyanide & other Cyanide based products by M/s Hindustan Chemicals Company Ltd located at Plot No.26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat (Gujarat), under the provisions of the EIA Notification, 2006, subject to the compliance of additional terms and conditions as under:-

#### A. Specific conditions:

- (i) Online Gas Detector for Hydrogen Cyanide to be calibrated to 1 ppm level from 4 ppm at present to have further safety assurance.
- (ii) At least 5% of total cost of the project to be earmarked towards the Enterprise Social Commitment based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office of MoEF & CC. Implementation of such program should be ensured accordingly in a time bound manner.
- (iii) National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13<sup>th</sup> June, 2011, as amended from time to time, shall be followed.
- (IV) Adequate stack height shall be provided to gas fired boilers.
- (v) All the gas from the process containing HCN shall be incinerated in the incinerator. Scrubber and Stack of adequate height shall be provided to incinerator. Bag filter, waste scrubber and stack of adequate height shall be provided to heat treatment salt plant, ammonia absorption column to ammonium sulphate recovery plant and Cyclone separator to control particulate emissions. Efficiency of pollution control device shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- (VI) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals, materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials

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storage area etc. shall be regularly monitored and records maintained. The emissions shall conform to the limit stipulated by the GPCB.

- For further control of fugitive emissions, following steps shall be followed:

  (a) Closed handling system shall be provided for chemicals. (vii)

  - (b) Reflux condenser shall be provided over reactor.
  - (c) System of leak detection and repair of pump/pipeline based on preventive maintenance
  - (d) The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.
  - (e) Cathodic protection shall be provided to the underground solvent storage tanks.
- A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be (viii) prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.
- Continuous monitoring system for HCN, Chlorine, HCl and NH3 as well as VOCs, shall (ix) be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. All necessary steps should be taken for monitoring of HCN, chlorine, HCl and NH3 as well as VOCs in the proposed Plant.
- Alarm for chlorine leakage if any in the liquid chlorine storage area shall be provided along with automatic start of the scrubbing system. (x)
- The gaseous emissions from DG set shall be dispersed through adequate stack (xi) height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No.826 (E) dated 16<sup>th</sup> September, 2009. The levels of PM2.5, PM10, SO2, NOx, CO and VOC shall be monitored in the ambient air and displayed at (xii) a convenient location near the main gate of the Company and at important public places. The Company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and GPCB.
- Solvent management shall be carried out as follows: (xili)
  - (a) Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%
  - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
  - (d) Solvent shall be stored in a separate space specified with all safety measures.
  - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

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- (f) Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
- (xiv) Total water requirement from Kakrapar Canal shall not exceed 600.3 cum/day after expansion in effect of ZLD scheme submitted by PP and prior permission should be obtained from the Competent Authority.
- Industrial effluent generation should not exceed 512 cum per day. Effluent will be segregated into high TDS/COD and low COD /TDS effluent streams. High TDS/COD effluent stream will be evaporated in multiple effect evaporators (MEE).Condensate will be treated in the condensate treatment unit. Low TDS/COD Effluent stream will be treated in the effluent treatment plant (ETP) comprising primary, secondary and territory treatment (reverse osmosis). Permeate will be reused/ recycled for cooling tower makeup. The proposed effluent treatment scheme for the existing in it as well as propose expansion is based on 'zero effluent discharge'. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.
- (xvi) 'Zero' effluent discharge shall be adopted and no effluent shall be discharged outside the premises.
- (xvii) Automatic/ online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the company's website.
- (xviii) Process effluent/any waste water shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- (xix) Incinerator should be design as per CPCB guidelines SO2, NOX, HCN, HCL and emission shall be monitor in the stack regularly.
- (xx) Hazardous chemicals shall be stored in tanks in Tank farms, drums, carboys etc. flame arrestor shall be provided on tank farm. Solvent transfer shall be by pumps.
- (xxi) The company shall obtain authorisation for collection, storage and disposal of hazardous waste under the Hazardous waste (Management Handling and Trans Boundary Movement rules, 2008 and amended as on date for the management of hazardous waste and prior permission from GPCB shall be obtained for disposal of solid/ hazardous waste in the TSDF. Measure shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.
- (xxii) As proposed ETP sludge, incineration ash and evaporation residue shall be sent to TSDF site. High calorific value west such as spent organic shall be sent to cement factory/ incinerated.
- (xxiii) The company shall strictly comply with the rules and guidelines under Manufacture Storage and Import of hazardous chemicals rules (MSIHC) 1989 as amended in October 1994 and January 2000. All Transportation of Hazardous Chemicals shall be as per the motor vehicle act MVA 1989.
- (xxiv) The company shall undertake following waste minimization measures.
  - (a) Metering and control of quantities of active ingredients to minimise waste.
  - (b) Reuse of by- product from the process as raw materials or as raw material substitute in other processes.

CEC for M/s Hindustan Chemicals Company Ltd

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- (c) Use of automated filling to minimise spillage.
- (d) Use of close feed system in to batch reactors.
- (e) Venting equipment through Vapour recovery system.
- (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xxv) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling, firefighting system shall be as per the norms.
- (xxvi) Occupational health surveillance of the worker shall be done on a regular basis and record maintained as per the Factories Act.
- (xxvii) As proposed Green Belt over 33 % total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of project area, in downward direction and along roadside etc. Selection of plant species as per the CPCB guideline in consultation with DFO.
- (xxviii) The company shall make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.
- (xxix) Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, Medical Health Care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction waste shall be manage so that there is no impact on the surrounding environment.
- (xxx) The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9th August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9th August, 2018.

#### **B. General Conditions:**

- (i) The Project Proponent shall obtain all other statutory/necessary permissions/recommendations/NOCs prior to start of construction/operation of the project, which inter alia include, permission/approvals under the Forest (Conservation) Act, 1980; the Wildlife (Protection) Act, 1972; the Coastal Regulation Zone Notification, 2019, as amended from time to time, and other Office Memoranda/Circular issued by the Ministry of Environment, Forest and Climate Change from time to time, as applicable to the project.
- (ii) The project proponent shall ensure compliance of 'National Emission Standards', as applicable to the project, Issued by the Ministry from time to time. The project proponent shall also abide by the rules/regulations issued by the CPCB/SPCB for control/abatement of pollution.
- (iii) The project authorities shall adhere to the stipulations made by the State Pollution Control Board/Committee, Central Pollution Control Board, State Government and any other statutory authority.
- (iv) The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The

Cofor M/s Hindustan Chemicals Company Ltd

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recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.

No further expansion or modifications in the plant, other than mentioned in the EIA (V) Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

The energy source for lighting purpose shall be preferably LED based, or advance (vi)

having preference in energy conservation and environment betterment.

The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured (vii) that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.

The overall noise levels in and around the plant area shall be kept well within the (ix) standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

The Company shall harvest rainwater from the roof tops of the buildings and storm (x) water drains to recharge the ground water and to utilize the same for process requirements.

Training shall be imparted to all employees on safety and health aspects of (ix) chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.

The company shall also comply with all the environmental protection measures and (xii) safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(xiii) The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented.

The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

A separate Environmental Management Cell (having qualified person with (xv) Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

(xvi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

(xvii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(xviii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of

For M/s Hindustan Chemicals Company Ltd

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monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

- The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mall.
- (xx) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xxii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.
- submission of or false/fabricated Concealing factual data data and of the conditions failure comply with any mentioned above may to of and result in withdrawal this clearance attract action under the provisions of Environment (Protection) Act, 1986.
- Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.
- This EC is issues in supersession of EC dated 22nd January, 2016 as the Hon'ble NGT has set aside the EC dated 22<sup>nd</sup> January, 2016 and directed to EAC and Ministry to give recommendation and take decision in accordance with law.

This issues with the approval of the competent authority.

(Dr. R. B. Lai)

Scientist 'R Additional Director
(Dr. B. L.)
বিজ্ঞানিক ই / Scientis 'E'
বর্ষাব্য, এন एব তারেয়ার দ্বিরেন প্রাক্তর
Mind Environment, Forest and Climate Change
भारत ব্যক্তাহ, শুর্চ বিভ্রম্বী
Govt. উন্নিপ্তরিকারি প্রঞ্জি Delhi

EC for M/s Hindustan Chemicals Company Ltd

#### Copy to: -

- The Deputy DGF (C), MoEF&CC Regional Office (WZ), E-5, Kendriya ParyavaranBhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal -16
- 2. The Secretary, Forests and Environment Department, Government of Gujarat, Block 14, 8th Floor, Sachivalaya, **Gandhinagar** (Gujarat) -10
- 3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, **Delhi** 32
- 4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector-10A, Gandhinagar (Gujarat) 10
- 5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, **New Delhi** 3
- 6. The District Collector, District Surat (Gujarat)
- 7. Guard File/Monitoring File/Website/Record File

(Dr. R. B. Lal) Scientist 'E'/Additional Director

# <u>Six Monthly Compliance of conditions stipulated by MoEF for M/s. Hindusthan Chemicals</u> <u>Company</u>

#### With reference to: EC order No. J-11011/466/2011-IA II (I) dated 13/03/2020

#### COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE

Name of unit: M/s. Hindusthan Chemicals Company, Plot No. 26-37, 54-57, 122, 143, Village:

Asnabad, Tehsil: Olpad, Dist: Surat, State: Gujarat

SR. NO.		DESCRIPTION O	F CONDI	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN		
1.	Order	No. <b>J-11011/466/</b> <b>13/03/2020</b>	2011-IA	II (I)	dated		
2.	chang projec cyanic Chem 57, 12	Ministry of Environment e has examined the t for manufacturing of le based products icals Company locate 22, 143, Village Asnab Gujarat	proposal Sodium 0 by M/s ed at plot	Complied	Our production Capacity is within the consent Limit. We submit monthly report to GPCB.		
3.	List of	existing & proposed p					
	Sr.	Name of Product	Production Capacity (MT/Annum)				
	no.		Existin g	Prop osed	Total		
	1	Hydrogen Cyanide	5100		5100		
	2	Sodium Cyanide	6372	1500 0	2137 2		
	3	Potassium Cyanide	2000		2000		
	4	Sodium Ferro Cyanide	1000		1000		
	5	Potassium Ferro Cyanide	1000		,,,,,		
	6	Diphenyl Guanidine	1260		1260		
	7	Sodium Dicyanamide	300		300		
	8	Mandelonitrile	2500		2500		
	9	Heat Treatment	720		720		7



SR. NO.		DESCRIPTION O	CONDI	TION		COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
		salt					
- 11	10	CYNOHYDRINES GI	ROUP				
	(i)	Meta phenoxy Benzaldehyde cyanohydrin (MPBAD cyanohydrin)					2
	(ii)	Formaldehyde Cyanohydrin (Glyconitrile)					
	(iii)	Acetone cyanohydrin					
	(iv)	Methyl ethyl ketone cyanohydrin	5000		5000		
	(v)	Acetaldehyde cyanohydrin (Lactonitrile )		5000		Y	
	(vi)	Para Anisaldehyde cyanohydrin					
	(vii)	Cyclohexanone cyanohydrin					
	(vii)	Methyl propyl ketone cyanohyrin					
	(ix)	Methyl MercaptoButyronit rile (Methyl Mercaptgopropona Idehyde Cyanohydrin)					
	(x)	Cyclo pentanone cyanohydrin		500	500		
	(xi)	2-Chloro Benzaldehydecya nohydrin (2-chloro Mandelonitrile)		500	500		
	(xii)			1000	1000		





SR. NO.		DESCRIPTION C	F COND	ITION		COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
		Benzaldehyde					
		Cyanohydrin					
		(Ortho Tolyl					
		Mandelonitrile)					
		Total of					
		Cyanohydrines	5000	2000	7000		
		Group					
	11	NITRILES GROUP		, ii			
	i)	Isophoron nitrile					
	ii)	IminoDiacetonitrile					
	iii)	Succinonitrile					
	iv)	3-Hydroxy propionitrile	3000		3000		
	v)	Methyl Amino Acetonitrile Hydrochloride					
	vi)	Methylene Amino Aceto Nitrile (MAAN)		300	300		
		Totals of Nitriles Group	3000	300	3300		
	12	CYANIDE BASE PRODUCTS					
	i)	Sodium cyano Acetate					
	ii)	Cyanamide (Crystals & Aqueous Solution)	3500		3500		
	iii)	Para Anisaldehyde Cyanohydrin					
	iv)	Diortho Tolyl Guanidine (DOTG)					
	v)	Zinc Cyanide		300	300		
	vi)	Isophoron Diamine		6000	6000		
		Total of Cyanide Based Products	3500	6300	9800		
	13	N G based CPP	2 MW		2 MW		





SR. NO.		DESCRIPTION OF CONDITION			COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN	
	14	Ammonia Sulphate (By- Product)	2649		2649		
4.		Land Area is 204 oped greenbelt in 33 <sup>o</sup>	-		•	Complied	We have developed greenbelt area which is approx. 45% of the total plot Area.
5.	There are no National parks, Wildlife Santuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, etc. within 10 km from the Project site. Tapi river Flows at a distance of 9.5 Km.			Complied	National parks, wildlife sanctuaries, Biosphere Reserves, tiger/elephant reserves, wildlife corridors etc. are not cover within 10 km from the project site.		
6.	item 5 interm Enviro 2006	project/activity is cover 5(b) 'Pesticides indus nediates (Excluding for noment Impact Asses and requires apprais ral EAC in the Ministry	try and prmulation ssment ( al at cer	pesticide n)' of sch EIA) Not	specific edule of ification,	Complied	Our project is covered under category A of item 5(b).
7.	The Febru condu Hower EAC, Industrement dated mention	ToR for the project ary 2012 and the acted on 14 <sup>th</sup> November, the proposal for considering the project arial Area (Olpad Inspiring from public con 22 <sup>nd</sup> January 2016 gr	t was good public per, 201 EC was ect site to dustrial sulation/cranted to onsulation; III sta	hearing hearing hearing hearing. The project hearing h	ng was GPCB. d by the notified nd Thus The EC ect finds g was	Noted & Complied	EC has been granted on the advice of Hon'ble NGT vide order dated 7 <sup>th</sup> Dec, 2017, after considering all aspects of Public Hearing, which was held on 14 <sup>th</sup> Nov, 2014.
8.	As pe 7 <sup>th</sup> De Minist Appra during June,	r the direction of Hon's cember, 2017 and sury the proposal was disal Committee(Indus) 27-28 March 2018, 2018, 27-29 august, in the ministry, where	ble NGT bsequer considere try-2) in 24-26 A 2018 ar	nt approved by the its meeting pril, 2018 and 29-31	al of the experts ngs held 8, 25-27 october,	Noted & Complied	We have received latest EC copy on dated: 13/03/2020 by MoEF.



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	the proposed expansion project for grant of environmental clearance.		
9.	The proposal was further examined in the Ministry and the project proponent submitted an undertaking and declared that the Sodium Cyanide Mfg. by them shall not be used as insecticidal purpose nor it shall be used for Mfg. of banned pesticide mentioned in the Notification issued on 18 <sup>th</sup> August, 2018 by the Ministry of Agriculture & Farmers welfare.	Noted & complied	We have follow notification issued on dated 18 <sup>th</sup> august, 2018 by the Ministry of Agriculture & Farmers Welfare.
10.	The project proponent also confirmed that they will ensure that customers to whom they sell their Sodium cyanide shall not use it for insecticidal purpose not their and use shall be for insecticidal purpose and they shall not use it for manufacturing of pesticides. The project proponent has also submitted the list of buyers and undertaking from them in this regard.	Noted & complied	We follow as per same.
11.	The proponent has also submitted the import permit for sodium cyanide issued by secretary, central insecticides board and regulation committee on dated 11 <sup>th</sup> January, 2019.	Noted & Complied	We follow as per same.
12.	Based on the proposal submitted by the project proponent, recommendation of the EAC (Industry-2) and further examination in the Ministry, the Ministry of Environment Forest and Climate change hereby accords EC to the project for Mfg. Sodium cyanide & other Cyanide based products by M/s. Hindusthan Chemicals Company located at plot No. 26-37, 54-57, 122, 143, village Asnabad, Tehsil-Olpad, district-Surat(Gujarat), under the provisions of the EIA Notification, 2006, subject to the compliance of additional terms and conditions as under:-	Complied	We follow all conditions as per mention in EC copy.
Α	SPECIFIC CONDITIONS:		
i)	Online Gas Detector for hydrogen cyanide to be calibrated to 1 ppm level from 4 ppm at present to have further safety assurance.	Noted & Complied	We are regularly carried out & calibrate to 1 ppm level of online gas detector for hydrogen cyanide.



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
ii)	At least 5% of total cost of the project to be earmarked towards the Enterprise social commitment based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional office of MoEF & CC. Implementation of such program should be ensured accordingly in a time bound manner.	Complied	Please Refer Annexure-18
iii).	National Emission Standard for Pesticide Manufacturing Industry issued by the Ministry vide G.S.R 446(E) dated 13 <sup>th</sup> June, 2011 as amended from time to time shall be followed.	Complied	Industry meets with the National Emission Standard for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R 446(E) dated 13 <sup>th</sup> June, 2011.
iv)	Adequate stack height shall be provided to gas fired boiler.	Complied	Adequate stack height <i>i.e.</i> 30 m has been provided for gas fired boiler.
v)	All the gas from the process containing HCN shall be incinerated in the incinerator. Scrubber and Stack of adequate height shall be provided to incinerator. Bag filter, Water scrubber and stack of adequate height shall be provided to heat treatment salt plant, ammonia absorption column to ammonium sulphate recovery plant and cyclone separator to control particulate emissions. Efficiency of pollution control device shall be monitored regularly and maintained properly. Scrubber vent shall be provided with online detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipment so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.	Complied	Proper air pollution control equipment has been provided at adequate stack height to check the flue gas emission as well as process gas emission from Tail Gas Incinerator Boilers.  HCC has installed and commissioned online stack monitoring gas analyzer and TOC meter.  Waste gas from all plants is driven under vacuum to existing Incinerator. HCN content in flue gas and efficiency of pollution control devices are being monitored on monthly basis by external NABL approved laboratory and also by internal Environmental Quality Lab, twice in a month basis. Bag Filter & Water Scrubber have been provided at Incinerator while Cyclone Separator has also been



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			provided at auxiliaryboiler. Interlocking system has been provided with the pollution control equipment to plant automatically Stopped in case of any increase in pollution level. Stack Monitoring Reports are attached as per Annexure 12.
vi).	In plant control measures for checking fugitive emissions from the entire vulnerable source shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be providing at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, products, raw materials storage area etc. shall be regularly monitored and records maintained. The emissions shall confirm to the limits stipulated by the GPCB.	Complied	Fugitive emissions in the work zone environment, rawmaterial storage area are being regularly monitored by on-line detectors like HCN Detectors in HCN, NaCN, and DPG & Mandelonitrile /Cyanohydrin plant. Portable gas detectors are also available at all plants. Company has also engaged a third party for monitoring of finished go-down for HCN, HCl, VOC, Moisture and ventilation.  Water sprinkling system is provided in HCN / ammonia / Chlorine at storage loading and unloading areas to control emissions. Work place Monitoring Reports are attached as per Annexure 10.
vii)	For further control of fugitive emissions, following steps shall be followed:  a) Closed handling system shall be Provided for chemicals. b) Reflux condenser shall be provided over reactor. c) System of leak detection and repair of pump/pipeline based on preventiveMaintenance. d) The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenserOperated on chilled water.	Complied	Point wise all control measure has been taken to prevent fugitive emission.





SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	e) Cathodic protection shall be provided to the underground solvent storagetanks.		
viii)	A proper leak detection and repair (LDAR) program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emission for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.	Complied	Intermediate storage/dozing tank of HCN in HCN Plant, NaCN Plant, and DPG & Mandelonitrile/Cyanohydrin plant have been kept under vacuum and vent is connected to the existing incinerator. Hence, there is no chance of any leakage.
			Al the joints of pipe lines and pumps are tongue & groove. All the pumps in HCN plant are submersible to avoid any gland leakage. Magnetic Seals have been installed at all raw material pumps. Reactors of other plants are closed and connected under vacuum to the incinerator. No pump is used for HCN transfer; it is done by gravity through double walled chilled brine cooled SS 316 pipe line.
			Condensers with chilled brine cooling at -5°C are provided wherever required (e.g. Reactors of Mandelonitrile/ Cyanohydrin) to prevent emission or vent to incinerator.
ix)	Continuous monitoring system for HCN, chlorine, HCL and NH3 as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results	Complied	We have installed continuous monitoring system at all important places/areas.
	indicate above the permissible limits. All necessary steps should be taken for monitoring of HCN, chlorine, HCL and NH3 as well as VOCs in the Proposed plant.		We are carryout work place Monitoring by third party Report of the same attached as per <b>Annexure 10.</b>
x)	Alarm of chlorine leakage if any in the liquid chlorine storage area shall be provided along with automatic	Complied	Online detector has been provided for any leakage



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	start of the scrubbing system.		occurred in the liquid chlorine storage area.
xi).	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	Complied	Adequate preventive measures have been taken to minimize gaseous emission from DG sets by providing air pollution control equipment and stacks at adequate height (as per CPCB norms).
xii)	Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated l6 September, 2009. The levels of PM2.5, PM10, SO2, NOx, CO and VOC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and GPCB.	Complied	Ambient air Monitoring Reports are attached as per Annexure10. Results of Ambient Air quality monitoring parametersare displayed near the main gate and summary of thereport will be updated on company website& sent to the Regional office of MOEF, the respective Zonal office of CPCB and GPCB.
xiii).	Solvent management shall be carried out as follows:  a) Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses, it shall be ensured that solvent recovery should not be less than 95%.  b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.	Complied	Chilled brine circulation system has been provided to condensate solvent vapors and reduce solvent losses.  Mechanical seals are provided wherever required in reactors and pumps.
	<ul> <li>c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.</li> <li>d) Solvents shall be stored in a separate space specified with all safety measures.</li> </ul>		Condensers are provided with sufficient HTA & residence time to achieve more than 95% recovery.  Separate space has been already provided as per
	e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.		requirement of Petroleum Act for storage of solvent.  Unit has been provided with proper earthing for all electrical equipment.



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	f) Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.		Where ever flammable chemicals are being used, flame proof motors & fitting are provided.
xiv).	Total water requirement from Kakrapar Canal shall not exceed 600.3 m3/day after expansion in effect of ZLD scheme submitted by PP and prior permission should be obtained from the Competent Authority.	Complied	Total water requirement has been increased from 651.2 m³/day to 1105.2 m³/day after expansion. Out of which, fresh water requirement from Kakrapar canal are only 600.3 m³/day and remaining water requirement are being met through recycled water <i>i.e.505</i> m³/day.  Total average wastewater generation is nil as companyhas implemented ZLD scheme from 1st April, 2016.
xv).	Industrial effluent generation should not exceed 512 m³/day. Effluent will be segregated into high TDS/COD and Low COD/TDS effluent streams. High TDS/COD effluent stream will be evaporated in Multiple Effect Evaporator (MEE). Condensate will be treated in thecondensate treatment unit. Low TDS/COD effluent stream will be treated in the effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment (Reverse Osmosis). Permeate will be reused/recycled for cooling tower make up. The proposed effluent treatment scheme for the existing unit as well as proposed expansion is based on "Zero effluent discharge". Water quality of treatedeffluent should meet the norms prescribed by CPCB/SPCB.	Complied	Effluent generated from different plants of HCC are segregated & divided for the treatment in two schemes.  Scheme – 1: Cyanide containing effluent with Ammonical Nitrogen, low TDS & very low COD-BOD: Effluent from following plants is combinedfor the treatment—HCN, NaCN, & SFCN – partly (only condensate water, which is major).  Scheme – 2: Effluent containing high TDS & high COD – BOD: a. SFCN Plant - Mother liquor after removing SFCN.
		148	b. DPG Plant - Alkaline effluent. c. SDCN Plant d. DOTG



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			Both schemes are successfully implemented & treated effluent meets all norms of GPCB.
			Industry have implemented Zero Liquid Discharge scheme from 1st April, 2016 with waste minimization for the existing ETP plants. Which is attached as <b>Annexure</b> – <b>5.</b> Analysis reports/Visit Notice of GPCB are also attached as <b>Annexure</b> –3.
xvi).	"Zero" effluent discharge shall be adopted and no effluent shall be discharged outside the premises.	Complied	Industry has implemented Zero Liquid Discharge scheme from 1st April, 2016 with waste minimization for the existing ETP plants. which is attached as <b>Annexure</b> – <b>5.</b> The total treated water is being recycled to Cooling Tower/in process. No effluent is being discharged outside the premises.
xvii).	Automatic /online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.	Complied	Automatic /online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system has been already installed.
xviii)	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Complied	Atmost care is taken to avoid spillage of chemicals.  All the plant area has been already covered with Dyke Wall and floor pit has also been provided to recycle/transfer spillage back to plant or to ETP.
xix).	Incinerator should be designed as per CPCB guidelines. SO <sub>2</sub> , NOx, HCN, HCl and CO emissions shall be monitored in the stack regularly.	Complied	Strictly follow the CPCB guidelines for any environmental concern. Gaseous pollutants like SO2, NOx, HCN, HCl and CO emissions in flue gas emission



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			and process emission are being monitored on monthly basis by external NABL approved laboratory and also by internal Environmental Quality Lab, twice in a month basis.
xx).	Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.	Complied	Hazardous chemicals are being stored with proper care in tank farm, drums etc. transfer of liquid material is transferred by pipes through pumps. Please Refer Annexure-17
xxi).	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for firefighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.	Complied	The industry has obtained authorization for the storage and disposal from GPCB and has valid membership of Nandesari Environment Control Ltd. (NECL), Baroda & Bharuch Enviro Infrastructure Ltd. (BEIL), Ankleswar/ Dahej. Membership copies of the same are enclosed as Annexure – 6.
xxii).	As proposed, ETP sludge, incineration ash and evaporation residue shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to cement factory/incinerated.	Complied	The industry has obtained authorization for the storage and disposal of incineration ash, treatment and disposal of hazardous waste from GPCB and has valid membership of Nandesari Environment Control Ltd. (NECL), Baroda and Bharuch Enviro Infrastructure Ltd. (BEIL), Ankleswar & Dahej. Membership copies of the same are enclosed as Annexure –6.
xxiii)	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended in October, 1994 and January, 2000. All	Complied	<ul> <li>Company has carried out various technical studies like HAZOP, Risk Assessment, Safety Audit etc. to</li> </ul>





SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	Transportation of Hazardous Chemicals shall be as per the. Motor Vehicle Act (MVA), 1989.		understand work operation and their hazards to minimize the potential risk.  Company has a comprehensive emergency action plan, contingency report and is also member of the District Crisis Group.  Company regularly conducts Mock Drills for various scenarios such as ON-SITE Mock Drill and observations are evaluated and implemented.1  Company has got adequate firefighting & hydrant system network to cope with the emergency.  Company has freeze assembly points at strategic locations & emergency escape routes. Due to low movement of vehicle, HCC used to operate one gate out of two for entry and exit purpose of employees & vehicle and the second gate is being kept as an emergency exit.  Company has got 3 bed OHC within the premises which is managed by qualified Doctor and trained nurse round the clock. Also sufficient stock of Cyanide antidote kits is available in OHC.  Company organizes training on various topics regarding occupational hazard to create awareness among the workforce.  Company has organized



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			various awareness programmes for local Students, Teachers & Doctors.
xxiv)	The company shall undertake following waste minimization measures :-	Complied	
a)	Metering and control of quantities of active ingredients to minimize waste		Industry has already implemented sophisticated close charging system with instrumentation for metering & control of active ingredients.
b)	Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.		Industry is already recycling the low purity NaCN generated from scrubber-absorbers / air stripping to NaCN plant after proper filtration / de-clourization.  Sodium Cyanide waste & mother liquor of NaCN are used for Sodium Ferro-cyanide manufacturing process.  Acidic waste water (dilute HCI) generated from DPG Plant during the manufacture of Ferrous Chloride is being used as a raw-material.
c)	Use of automated filling to minimize spillage.		To minimize the spillage, all finished products, e.g. Sodium Cyanide, Diphenyl Guanidine & Sodium Dicyanamide etc. are filled in drums/bags automatically. Spillage is almost eliminated.
d)	Use of Close Feed system into batch reactors.		Raw-materials and process chemicals feeding system into batch reactors are in a closed system with sophisticated instrumentation.
e)	Venting equipment through vapour recovery system		Venting equipments, e.g. condensers, scrubbers & incinerators have been provided to the reactor to destruct hazardous vapour&



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
		1	hence there will be no toxic/hazardous release to atmosphere.
f)	Use of high pressure hoses for equipment clearing to reduce wastewater generation.		Company is already using water at high pressure for cleaning the equipment.
xxv)	The unit shall make the arrangement for protection of possible fire hazards during Manufacturing process in material handling. Firefighting system shall be as per the norms.	Complied	Company has made arrangement for the protection of possible fire hazard right from the beginning. Fire water pipe line network with fire water pond & pumps have been provided to meet any emergency. Different types of required fire extinguishers have been provided in all plants & other strategic locations. Firefighting training is also given to employees.
xxvi)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied	Occupational Health Surveillance of all workers & employees is being done regularly by industry at least Twice in a year by qualified medical officer & also by an external agency, Dr. Agarwal Diagnostic Centre, Kalyan, Mumbai. Records of the same are maintained as per the Factories Act.
xxvii ).	As proposed, green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	Complied	Total plot area is 2,04,995 m <sup>2</sup> out of which Greenbelt has already been developed in 92,247 sq. m., which is 45% of total land. Selected plant species is as per the CPCB guidelines in consultation with the DFO.
xxvii i)	The company shall make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.	Complied	<ul> <li>Company has made arrangement for the protection of possible fire hazard right from the beginning. Fire water pipe</li> </ul>



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			line network with fire water pond & pumps have been provided to meet any emergency. Different types of required fire extinguishers have been provided in all plants & other strategic locations. Firefighting training is also given to employees.  Safety training is given to all employees on joining, followed by written test and refresher safety training is also given to all employees once in a period of two years, which includes use of PPEs.  Pre-employment and routine medical examination for all employees handling chemicals is conducted regularly.
xxix)	Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction waste shall be manage so that there is no impact on the surrounding environment.	Complied	Industry has already made provision for the housing of construction laborers in the company's housing colony, which is nearby the plant & has all required facilities.
xxx)	The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's office Memorandum No. 22-34/2018-IA. III, dated 9 <sup>th</sup> August, 2018. The said OM is available at the Ministry's website (Parivesh Portal i.e. www. Parivesh.nic.in) The grant of EC is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA. III, Dated 9 <sup>th</sup> August, 2018.	Complied	We have complied to all conditions as mentioned in the Ministry's office memorandum No. 22-34/2018-IA. III dated 9 <sup>th</sup> August, 2018.
В	GENERAL CONDITIONS		
i)	The project proponent shall obtain all other	Complied	We have obtained necessary



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	statutory/necessary permissions/recommendations/ NOCs prior to start of construction/operation of the project, which inter alia include, permissions/approvals under the Forest (Conservation)Act, 1980; the wildlife (Protection)Act, 1972; the Coastal regulation Zone Notification, 2019 as amended from time to time, and other office Memoranda/Circular issued by the Ministry of Environment, forest and climate change from time to time, as applicable to the project.		permission from the Board.
ii)	The project proponent shall ensure compliance of 'National Emission Standards' as applicable to the project, issued by the ministry from time to time. The project proponent shall also abide by the rules/regulations issued by the CPCB/SPCB for control/abatement of pollution.	Complied	We follow National emission standards & norms within prescribe limit. We follow rules/regulations issued by the CPCB/SPCB for control/abatement of pollution.
iii)	The project authorities shall adhere to the stipulations made by the State Pollution Control Board/Committee, Central Pollution Control Board, State Government and any other statutory authority.	Complied	Complied HCC has received renewed CC&A vide order no. AWH- 94173 dated 04/07/2018 valid up to 14/07/2023. Also unit has received CC&A Amendment vide letter No. GPCB/CCA-SRT-50(18)/ID- 20643/574125 on Dated: 01/12/2020 which is attached as Annexure - 8.
iv)	The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of schedule-1 species in the study area, as applicable to the project and submit to chief wildlife warden for approval. The recommendations shall be implemented in consulation with the state forest/Wildlife Department in a time bound manner.	Complied	Not applicable for prepare a site specific conservation plan & wild life management plan.
v)	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment and Forest & climate change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh	Complied	Company assures that no further expansion or modification in the plant shall be carried out without prior approval of MoEF & CC. A fresh reference shall be made for any deviation & change in



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.		the plant.
vi)	The energy source for lighting purpose shall be preferably LED based, or advance having preference in energy conservation and environment betterment.	Complied	We have installed LED base lighting in premises for energy conservation and environment betterment.
vii)	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied	Industry has already decided the following four ambient air locations as under in consultation with GPCB.  1. HCN plant 2. ADM Office 3. R&D lab 4. Security Office
viii)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> November, 2009 shall be followed.	Complied	We follow NAAQ emission standards & norms within prescribe limit.
ix)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Complied	During the study period, the ambient noise level was within the limit as per the standard prescribed under Environment (Protection) Act, 1986, Rules, 1989 for day time and night time.  For Noise level report kindly find attached Annexure- 11.
x)	The Company shall harvest rainwater from the roof-tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.	Complied	As our industry is in safe zone but we can not do rain water harvesting recharge through recharge borewell, Because it is Chemical unit, we shall plan collection of Rain water from our Rooftop area and store the catchment water from Rooftop area in underground lined tanks as per CGWA



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			guidelines.  The unit has big rooftop area 12033 sqm. Hence water collected from rooftop Area.  The abstraction of fresh water from borewell as our unit is in Safe zone and Chemical unit, we shall collect all water from our Rooftop area and collect in underground Lined storage tanks.
xi)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Preemployment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Complied	Safety training is given to all employees on joining, followed by written test and refresher safety training is also given to all employees once in a period of two years, which includes use of PPEs.  Pre-employment and routine medical examination for all employees handling chemicals is conducted regularly.
xii)	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures relating to the project shall be implemented.	Complied	Industry has provided scrubber, dust collector, bag filter and cyclone separator wherever required.
xiii)	The company shall undertake all relevant measures for improving the socio economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented.	Complied	HCC Management believes in socio-economic upliftmentand undertakes various CER activities based on requirement of surrounding areas.
	E		Company is actively working on improving socioeconomicConditions of



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
			the surrounding area by way of organizing medical camps, blood donation camps, donation to schools & villages.
			Awareness training on hazards of chemicals used/produced in plant & their preventive measures are being given to people of surrounding villages.
xiv)	The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Complied	Please Refer Annexure-18  Company is actively working on eco-developmental measures in the project area. New tree plantation is done every year on Safety Day, World Environment Day & before monsoon.
			Company has organized various safety and environment awareness programs and also planted 750 nos. of trees within premises in the month of June 2019 to Nov 2019.
xv)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Complied	Company has already set up Environmental Management Cell (EMC) equipped with full-fledged Laboratory facility. Company has also appointed qualified Environmental Officer, who looks after day to day monitoring and management activity of the EMC.
xvi)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forests& climate change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/	Agreed	HCC Management believes in sustainable management of natural resources and environment of project site as well as surrounding areas.



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	pollution control measures shall not be diverted for any other purpose.		
xvii)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/Representations, if any, were received while processing the proposal.	Complied	Copy of the clearance letter has been sent to concerned authorities.  Please Refer Annexure-19
xviii )	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF& CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.	Complied	HCC is regularly submitting summary of six monthly reports on status of compliance of EC conditions by email to Regional Office of MoEF& CC and the same comprehensive physical report by post to the Regional office of MoEF &CC, the respective zonal office of CPCB and the State Pollution Control Board.
xix)	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the Gujarat Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Bhopal Regional Offices of MoEF& CC by e-mail.	Complied	Environmental statement for each financial year in Form – V is being submitted to GPCB. HCC has sent copy of Form – V through courier for the financial year 2020 – 2021 to MoEF, Bhopal.
xx)	The project proponent shall inform the public that the project has been accorded environmental clearance by the ministry and copies of the clearance letter are available with the SPCB/committee and may also be seen at website of the Ministry and at <a href="https://parivesh.nic.in">https://parivesh.nic.in</a> this shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned regional office of the ministry.	Complied	Information on Environmental Clearance for new projects has already been advertised in two local newspapersGujarat Samachar on 20th March 2020 and The Times of India on 20th March 2020.  Please Refer Annexure-16
xxi)	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the	Noted	We agree. But this expansion project is on hold due to covid-19 effect.



SR. NO.	DESCRIPTION OF CONDITION	COMPLIAN CE STATUS	CORRECTIVE & PREVENTATIVE ACTION TAKEN
	concerned authorities and the date of start of the project.		
xxii)	This Environmental clearance is granted subject to final outcome of Hon'ble supreme court of India, Hon'ble high court, Hon'ble NGT and any other court of law, if any as may be applicable to this project.	Noted & Complied	We agree.
13.	The ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.	Noted & Complied	We agree.
14.	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted & Complied	We agree
15.	Any Appeal against this Environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.	Noted	No any appeal against EC.
16.	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & control of pollution) Act, 1974, the Air(Prevention & control of pollution) Act, 1981, the Environment (Protection) act 1986, the Hazardous waste (Management, handling & transboundary Movement) rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.	Noted & Complied	We agree
17.	This EC is issues in supersession of EC dated 22 <sup>nd</sup> January, 2016 as the Hon'ble NGT has set aside the EC dated 22 <sup>nd</sup> January, 2016 and directed to EAC and ministry to give recommendation and take decision in accordance with law.	Noted & Complied	We agree
18.	This issues with the approval of the competent authority.	Noted	





#### SUMMARY

Hindusthan Chemical Company, formerly known as Cyanides & Chemicals Company, is a unit of HEIL. The unit was set up in the year 1982 in GIDC Industrial Estate at Olpad Taluka of Surat District in Gujarat State. The unit is engaged in manufacture of Hydrogen Cyanide (HCN) and Cyanide based products. The unique feature of the HCN manufacturing technology is that the whole system of manufacturing process is working under vacuum hence in any case hazardous gas is not released-out into the atmosphere from the production system. The unit is manufacturing of Hydrogen Cyanide, Sodium Cyanide, Potassium Cyanide, Sodium/Potassium Ferro Cyanide, Diphenyl Guanidine, Heat Treatment Salt, Sodium Dicyanamide, Cyanohydrins, Nitriles, Cyanide based products, Mandelonitrile and Natural Gas based Captive power Plant.

Under environment legislation, it is mandatory to submit six monthly compliance reports on the conditions mentioned in the Environment Clearance (EC) vide letter no.: No. J – 11011/ 466/2011 – IA II (I) dated 22/01/2016 issued by Ministry of Environment & Forests (MoEF), Govt. of India, New Delhi. Hindusthan Chemicals Company at Olpad Dist: Surat has obtained valid EC, NOC & CC&A from concerned authorities.

The industry has awarded contract for the Environmental monitoring and preparation of six monthly EC compliance report to Earthcare Enviro Solutions Pvt. Ltd. The consultancy firm has its own well equipped laboratory to measure the pollution parameters related to Environmental Monitoring (Air, Wastewater, Soil) with National Accreditation Board for Testing and Calibration Laboratories (NABL) accreditation. All monitoring equipments are available to measure Stack emissions, Ambient Air quality and noise level of various plants.

Six monthly compliance report along with monitoring data are regularly submitted to the concerneddepartment and during monitoring period of this report RO visit was also done. All the conditions stipulated in EC clearance was compiled by the project proponent.



### **OBSERVATIONS & RECOMMENDATIONS**

- HCC has obtained valid EC, NOC & CC&A from concerned authorities.
- HCC used to operate one gate out of two for entry & exit purpose of employees & vehicle and the second gate is being kept as an emergency exit.
- All the analysis report of ambient air, stack, effluent & noise are well within the GPCB norms.
- Industry has implemented ZLD scheme and no effluent discharge outside the industry premises.
- Industry has carried out regularly pre-employment & routine medical examination for all employees.
- HCC has greenbelt area of 22 acres (approx.45%) within premises.
- HCC has installed and commissioned online stack monitoring gas analyzer and TOC meter.
- HCC has implemented rain water harvesting.
- HCC has been regularly carried out CSR activities.
- HCC has obtained membership certificate of BEIL, Ankleshwar/Dahej& NECL, Baroda for disposal of hazardous waste.
- HCC has regularly uploaded monthly data & Form-V on XGN portal.
- HCC has regularly uploaded six monthly compliance report of EC conditions on parivesh portal.



# Annexure-1

## Salient Features of Project

S. No.	Description	Details	
1.	Airport	Surat Airport is 22 km in S direction	
2.	Railway station	Surat Railway station is 19 km in SE direction	
3.	Port	Magdalla port is 26 km in S direction	
4.	National Highway	NH-8 is 21 km in E direction	
5.	State Highway	SH-6 is 350 m in E direction	
6.	Town/City	Surat city is 15 km in SE direction	
7.	Village	Olpad village is 1.5 km From nearest main locality	
8.	River	Tapi river is 9.5 km in SE direction	
9.	Sea	Arabian Sea is 18.5 km in SW direction	

# Annexure-2

# **Details of expenditure allocated on EMP**

S. No.	Head of Expenses	Expenditure (Rs. In Lakhs)		
		Year 2019-20	Year 2020-21	
1.	Effluent Treatment Facility	190.16	29.11	
2.	Hazardous Waste Management Facility	21.30	16.21	
3.	Green Belt Development	16.02	8.5	
4.	Electricity charge to run ETP for GEB	76.93	58.35	
5.	Environment Monitoring & Audit	2.31	9.28	
	Total	306.72	121.45	

#### **GPCB INSPECTION VISIT & REPLY**



# ગુજરાત પ્રદુષણ નિયંત્રણ બોર્ડ

પ્રાદેશિક કરોરી, સુરત

338, બેલ્જીયમ સ્કેવર, ટીપીકલ ફર્સ્ટ ફ્લોર, સિલ્લર પ્લાઝા કોમ્પલેક્સ, લીનીયર બસ સ્ટેન્ડની સામે, રીંગ રોડ, સુરત-૩૯૫૦૦૩. (ગુજરાત) ફોન નં. (૦૨૬૧) ૨૪૪૨૬૯૬, ૨૪૧૧૧૯૨ ફેક્સ નં. (૦૨૬૧) ૨૪૨૯७૩૩ ISO - 9001 - 2008 & ISO - 14001-2004 Certified Organization Website : www.gpcb.gov.in E-mail : ro-gpcb-sura@gujarat.gov.in GST No. : 24SRTG00481F1DK

## તપાસ માટે દાખલ થવાની સૂચના (નોટીસ)

oi: ID-20643

પાણી અધિનિયમ 1974 ની કલમ – 23, હવા અધિનિયમ ની 1981 ની કલમ–24 અને પર્યાવરણ (સુરક્ષા) અધિનિયમ – 1986 ની કલમ–10 હેઠળ અમોને મળેલ સત્તાની રૂએ અમો નીચે સહી કરનાર અમોને જરૂરી લાગે તેની સહાય લઈને તમામ સમયે નીચેના હેતુઓ માટે આપની જગ્યામાં દાખલ થવાનો અને તપાસ કરવાનો અધિકાર ઘરાવીએ છીએ.

- (૧) અમોને સોંપેલા રાજ્ય બોર્ડ/કેન્દ્ર સરકારનાં કાર્ચ બજાવવાના હેતુ માટે,
- (ર) આવા કોઈ કાર્ચો બજાવવાના છે કે કેમ અને તેમ હોય તો કઈ રીતે તે બજાવવાના છે અથવા આ અદિનિયમ અથવા તે હેઠળ કરેલા નિયમોની અથવા આ અદિનિયમ હેઠળ બજાવેલી કોઈ નોટીસની, કરેલા કોઈ હુકમની, આદેશની અથવા આપેલા કોઈ અધિકારપત્રની કોઈ જોગવાઈનું પાલન કરવામાં આવી રહ્યું છે કે પાલન કરવામાં આવ્યું છે કે કેમ તે નક્કી કરવાના હેતુ માટે,
- (3) કોઇ સાધન સામગ્રી, ઔદ્યોગિક પ્લાન્ટ, રેકર્ડ, રજીસ્ટર, દસ્તાવેજ અથવા અન્ય કોઈ મહત્વની વસ્તુની તપાસ કરવા અને તેની કરોટી કરવાના હેતુ માટે અથવા જે જગામાં તેને એમ માનવાને કારણ હોય કે આ કાયદા કે તે હેઠળ કરેલા નિયમો મુજબ કોઈ ગુનો કરાવામાં આવ્યો છે અથવા થવાની તૈયારીમાં છે. તેવી કોઈ જગ્યાની ઝડતી લેવા માટે અને તેને એમ માનવાને કારણ હોય કે આ કાયદા કે તે હેઠળ કરેલા નિયમો હેઠળ શિક્ષાપાત્ર કોઈ ગુનો કર્યાનો પુરાવો, તેવા સાધન સામગ્રી, ઔદ્યોગિક પ્લાન્ટ, રેકર્ડ, રજીસ્ટર, દસ્તાવેજ અથવા અન્ય મહત્વની વસ્તુ કબજે લેવા માટે અમે નીચે જણાવેલ સમચે દાખલ થઈએ છીએ

ઉદ્યોગ/કારખાનામાં દાખલ થવાનો સમય : સવારના/સાંજના 15 = 30 Mb વાગ્યે, તા. 01/01/ ૨૦૨૧ અમારી સાથે સહાય માટે નીચેની વ્યક્તિઓ પણ છે.

e. R.N. PUEL - SO

<u>s.</u> S

shei R.P. Sharma. AVP

Hindusthan Chemicals Company Prop. Hindusthan Engineering & Industries End. G. I. D. C. Estato, P.O. Olpad-394 540, Dist. Surat. (Gujarat)

ଶଣ	Sur
અધિકારીનું નામ	J.m. chaudhary
මාදා	DEE



# ગુજરાત પ્રદુષણ નિયંત્રણ બોર્ડ, સુરત

પ્રાદેશિક કચેરી, સુરત

338, બેલ્જીયમ સ્કેવર, ટીપીકલ ફર્સ્ટ ફલોર, સિલ્વર પ્લાઝા કોમ્પલેક્સ, લીનીયર બસ સ્ટેન્ડની સામે, રીંગ રોડ, સુરત-૩૯૫૦૦૩. (ગુજરાત) ફોલ લં. (૦૨૬૧) ૨૪૪૨૬૯૬

ISO - 9001 - 2008 & ISO - 1401-2004 Certified Organisation

Website: www.gpcb.gov.in

XGN website: http://gpcbxgn.gujarat.gov.in

E-mail: ro-gpcb-sura@gujarat.gov.in GST No.: 24SRTG00481F1DK

પ્રતિ શ્રી

Hindusthan Chemicals Company Prop. Hindustien Engineering & Industries Ltd.
G. I. D. C. Estate.
P.O. Olpad-394 540.
Dist. Surat. (Gujarat) 1D-20643

વિષય : આપના એકમની બોર્ડ દારા લેવામાં આવેલ તા.

01/01/2041

ંશ્રીમાન,

આપના એક્મની આજરોજ મુલાકાત લેવામાં આવેલ તે દરમ્યાન નીચે મુજબના મુદ્દાઓ ધ્યાનમાં આવેલ છે. 2 Submit details (for Last 3 months) rebout Production, water consumption, wiw generation, & treated wiw ( I wough Ro Plant) reused in utility & Ro reject WIW feed in to mee, fuel consumption, stock and disposed of trazardous waste.

ઉપરોક્ત બાબતોની પૂર્તતા દિન-૩ માં કરી અત્રેની તેમજ ગાંધીનગર ખાતેની વડી કચેરીને જાણ કરવા આથી જણાવવામાં આવે છે. સદર બાબતે પગલાં લેવામાં ચૂક થશે તો બોર્ડ દ્વારા કાયદાકીય પગલાં લેવામાં આવશે જેની નોંધ લેવી.

JAS Mary આ સુચના (નોટીસ) સ્વીકારનારનું નામ, હોદ્દો તથા સહી

Shei R. P. Sharma - AUP

अधिअशनुं नाम J.m. chaudhary



F. TECH: 17: HP5/129

2 January 2021

#### GPCB ID: 20643

To, The Member Secretary, Gujarat Pollution Control Board, Paryawaran Bhawan, Sector-10/A, Gandhinagar - 38 2 010

SUB.: CLARIFICATION REGARDING YOUR VISIT AT OUR INDUSTRIAL UNIT. REF.: YOUR LETTER NO. NIL. DATED (). D1.2021

Respected Sir.

With reference to above subject matter, we would like to submit clarification as under

Q-1, "Unit has to submit details of last three months Production data, Water Consumption, waste water generation, Treated Waste Water (through 80 Plant) reused in Utility, RO reject waste water feed into MEE, Fuel consumption, Stock & disposal of Hazardous waste, at Regional Office".

 Finase refer attached Annexures for details of last three months Production data, Water Consumption, waste water generation, Treated Waste Water (through 80 Plant) reused in Utility, 80 reject waste water feed into MEF, Fuel densumption, Stock & disposal of Hazardous waste as per monthly patrak.

We hope you will find the above in order and we humbly request you to kindly consider our above details 8, oblige us.

Thanking You.

Yours faithfully,

FOR HINDUSTHAN CHEMICALS COMPANY

CRESTIONNES
R P SHAAMA
Asst. Vice President (Plant)

Encl: Announce-2 pages.

Crito: The Regional Officer.
Sujarat Pollution Control Board,
338 Belgium Square, Ring Boad, Surat

Ber Linet 2021

## PLANT DATA FOR OCT. 2020 TO DEC., 2020

51 No	Particulares	Oct., 2070	Nov., 2020	Dec. 7020
1	PRODUCTION DATA	Prod (MT)	Prod [MIT]	Prod (MT)
	Hydrocyanic Acid	361.500	352.400	355.300
	Sodium Cyanide	574 765	559.700	563,250
	Potassium Cyanide	152,700	0.000	0.000
	Sodium Ferrocyanide / Potassium Ferrocyanide	0.000	000 10.003	0 000
	Diphenyl Guandine	0.000	0.000	0.000
	Sodium Dicyanamide	0.000	0.000	0,000
	Mandelonifrite	103 180	109.780	134,200
	Host treatment Set	0.000	0.000	0 000
	Cyanohydrina	65.200	66.250	64.540
	Nitale	0.000	0.000	0.000
	Cyanide Based Product	0.000	0.000	0.000
-	TOTAL	1257.345	1098.13	1117.29
	Water Consumption(M3)	11425	11510	11965
	Waste Water Generation Mil	7661	2792	2934
	Treated Waste Water (through R.O plant) used in Utility M3 (inclusive of steam condensate)	3268	4000	4127
	R O Reject Waste Water Feed to MEE M3	505	426	Sac

### PLANT DATA FOR OCT. 2020 TO DEC. 2020

Si No	Particulares	Oct., 2020	Nov., 2020	Dec. 2020
6	FUEL CONSUMPTION DATA			
	AUXILIARY BOILER			
	NATURAL GASINMBI	73010	115597	120735
	FURANACE OIL(KL)	o	0	D
	EMERGENCY DG SETS			
	HIGH SPEED DIESEL/KU	<b>9 ≥30</b>	4.500	3.850
*	Hazardous Waste			
	Type of Waste	Stock at Present in Kgs	Total Disposal (	
	Residue from 210	2847	457.	30
	Activated Carbon	7564	D	
	Ferric Hypnoxide	1502	0	
	Residue from ET Plant (Mrs)	2699	o	

#### FORM- V



# HINDUSTHAN CHEMICALS COMPANY

(An enterprise of THE HINDUSTHAN GROUP)

CIN: U93000WB1998PLC096303

G.L.D.C. Industrial Estate, Olpad - 394540, DIST SURAT, GUJARAT (INDIA) Email: hccolpathcc-cyanides.com TELEPHONE: 02621-221681 to 221683, M: 9978444894, 9973444895 Telefax: 02621-221235

F:HCC:TECH:17:RPS//4

GPCB ID: 20643

23<sup>rd</sup> April, 2021

Τo, The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector - 10/A. GANDHINAGAR - 382 010.

SUB.: SUBMISSION OF AN ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENOING ON 31<sup>57</sup> MARCH 2021

010

Respected Sir.

With reference to the above subject matter, we would like to submit herewith An Environmental Statement for the financial year ending 31st March, 2021.

We hope you would find the same in proper order & oblige us.

Highking you,

Yours faithfully. For Hindusthan Chemicals Company

JF3 harms 8 2 Sharma Asst. Vice President(Plant) Encl : Form-V & Annexure-I to III.

Gr. 1 Regional Officer Gujarat Pollution Control Board 338, Relgium Square, Typical 1th Floor Silver Plaza Complex, Near Linear Bus Stand Ring Road, Surat - 395 003

2. The Director (Environment) Ministry of Environment & Forests Regional Office (Western Region) Link Road No. 3, E-5 Arera Colony Bhopal - 462 016 (MP)

Gardinagar-352010.

- By Regd A/D

H.O. 65, FREE PRESS HOUSE, 215 FREE PRESS JOURNAL ROAD, NARIMAN POINT, MUMBAI 400 021, INDIA TEL.: 91-22-22027947 / 61510999, TELEFAX - 91-22-22020430 E-MAIL: info@hoc-cyanides.com TEL.: 91-22-22027947 / 61510999, TELEFAX - 91-22-22020430 E-MAIL: info@hoc-cyanides.com PEOP: MINDUSTHAN ENGINEERING & INDUSTRIES LTD. REGD. OFFICE: MODY RGILDING, 27 SIR R.N. MUKHERJEE ROAD, KOLKATA - 20000 C

#### FORM - V

(See Rule 14)\*

From:

M/s. HINDUSTHAN CHEMICALS COMPANY GIDC INDUSTRIAL ESTATE, P.O – OLPAD, TAL.: OLPAD, DIST.: SURAT- 394540.

To, Gujarat Pollution Control Board "Paryavaran Bhavan", Sector – 10 A, GANDHINAGAR – 382 010

Environmental Statement for the financial year ending the  $31^{\rm st}$  March, 2021

#### PART - A

(i) Name and address of the owner/ Occupier of the industry operation or process MR. R P SHARMA
(ASST. VICE PRESIDENT-PLANT)
M/s. HINDUSTHAN CHEMICALS COMPANY
GIDC INDUSTRIAL ESTATE, P.O.—OLPAD,
TAL.: OLPAD, DIST.: SURÅT- 394540.

(ii) Industry category -Primary - (STC Code) Secondary - (SIC Code)

Large Scale (Red Category)

(iii) Production capacity Units

PRODUCTS	CAPACITY
Hydrogen Cyanide	5100 MT/Annum
Sodium Cyanide	6372 MT/Annum
Potassium Cyanide	2000 MT/Annum
Sodium Ferrocyanide	1000 MT/Annum
Potassium Ferrocyanide	1000 MT/Annum
Diphenyl Guanidine	1260 MT/Annum
Sodium Dicyanamide	300 MT/Annum
Mandelonitrile	2500 MT/Annum
Heat Treatment Salt	720 MT/Annum
Cyanohydrines	5000 MT/Annum
Nitrites	3000 MT/Annum
Cyanide based products	3500 M1/Apnum
BY PRODUCT	CAPACITY
Ammonium Sulphate	2649 MT/Annum

(iv) Year of establishment

December-1982

(v) Date of the last Environmental -Statement submitted

: 06/04/2020



Submission of Environmental Statement is in accordance with the provisions of Rule-14 of the Environment (Protection). Amendment Rules, 1993 of the Environment (Protection) Act, 1986 (29 of 1986) published vide Notification dated 22-4-1993 G.S.R. 386 (E) in the Gazette of India-Extraordinary- Part-II Section-3 Subsection (i), No. 155 dated 28-4-1993 by the Ministry of Environment and Forests, Government of India; read with the Notification dated 13-3-1993 G.S.R. 329 (E), of the Gazette of India—Extraordinary Part — II Section—3 Subsection (I) No. 120 dated 13-3-1993.

"Every person carrying on an industry, operation or process requiring Consent under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974 (5 of 1974) or under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981 (14 of 1981) or tooth or authorization under the Hazardous Wastes (Management and Handling) Rules, 1989 published under the Environment (Protection) Act, 1986 (29 of 1986) Shall submit an Environmental Statement for the financial year ending the 31° March in From V to the concerned State Pollution Control Board on or Before the Thirtieth day of September every year, beginning 1993."

#### PART-B

Water and Raw Material Consumption (As per Total Working Days 353)

(1) Water Consumption M<sup>3</sup>/day

Process & Washing

22.288 m<sup>3</sup>/day

Boiler/Cooling

351.711 m<sup>3</sup>/day

Domestic

8.358 m<sup>3</sup>/day

Name of Product

Process water consumption per unit of product

output

During the previous

During the current financial year

financial year

nancial year (2)

1. Hydrogen Cyanide

2. Sodium Cyanide

9.76 m<sup>3</sup>/MT

9.10 m<sup>1</sup>/MT

- 2 Potassium Cyanide
- 4. Sodium Ferrocyanide
- 5. Potassium Ferrocyanide
- 6. Diphenyl Guanidine
- 7. Sodium Dicyanamide
- 8 Mandelonitrile
- g. Heat Treatment Salt
- 10. Cyanohydrines
- 11. Nitrites
  - Coacide based products



(ii) Raw material consumption

\* Name of raw material

Name of Product

Consumption of raw material per Unit of

output

During the previous financial year

During the current financial year

#### Please refer Annexure - I

Industry may use codes if disclosing details of raw material would violate contractual Obligations, otherwise all industries have to name the raw materials used.

#### PART - C

Pollution discharge to environment/unit of output

ollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants in discharged (mass/volume)	Percentage of variation from prescribed Standards with reason
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Water (a)

Please refer Annexure - II

Air (b)

Please refer Annexure - III

#### PART - D HAZARDOUS WASTES

(As specified under Hazardous Wastes (Management and Handling) Rules, 1989)

	Total Quantity (kg.)		
Hazardous Waste	During the previous financial year	During the current financial year	
(a) From Process	Activated Carbon: 2.564 MT Ferric Hydroxide: 1.502 MT Contaminated Polythene Liner: 0.025 MT	NIL	
(b) From pollution control facilities	ZLD Residue : 5.197 MT ETP Sludge : 0.699 MT Residue from ETP(MEE) : 2 MT	ZLD Residue : 164.53 MT ETP Sludge : 0.015 MT	

#### PART – E SOLID WASTE

Hazardous Waste	Total Quantity (kg.)			
Natal doub 1790.0	During the previous financial year	During the current financial year		
(a) From Process	Whole quantity of Solid Waste was dried and	Whole quantity of Solid Waste was dried and		
(b) From pollution control facilities	Then sent to M/s. Bharuch Enviro Intrastructure Ltd. For	Then sent to M/s. Bharuch Enviro Infrastructure Ltd. for		
(c) (1) Quantity recycled or re- utilised within the unit (2) Sold	Landfilling, Incineration, Treatment and Disposal.	Landfilling, Incineration, Treatment and Disposal		
(3) Disposed		-		

#### PART - F

Please specify the characterizations (in terms of composition and quantity) of hazardous as well as solid and indicate disposal practice adopted for both these categories of wastes.

	ous Waste: Activated Carbon	- Semi solid	
		Activated Carbon Water Oxidized Polymer of DPG (Loss on ignition at 500° C.)	NIL NIL NIL
n)	Ferri Ferrocyanide	- Ferri Ferrocyanide Water	MIL
iii)	Ferric Hydroxide	- Ferric Hydroxide Water Sodium Ferrocyanide	NIL NIL NIL
Solid i) ii)	Waste: Contaminated Salt ETP sludge	Sodium Chloride Cyanide content	NIL N.D



#### PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

# Impact on conservation of natural Impact of cost of production resources

#### 1.Water Pollution

We are operating our Zero Liquid Discharge Plant efficiently and no treated water is discharged by our unit. The total Treated water is being recycled to Cooling Tower/In process.

An amount of Rs. 154.34 Lacs is spent annually in Effluent Treatment Plant & Zero Liquid Discharge Plant.

#### 2. Hazardous Wate:

Hazardous waste get completely dried in waste impervious pan by solar evaporation.

Constituents present in hazardous was sent to M/s Bharuch Enviro Infrastructure Ltd, Ankleshwar & Dahej for incineration & Landfill, treatment and disposal. An amount of 33.15 Lac was spent annually.

#### 3. Air Pollution:

The toxic gases are completely burnt in Incinerator resulting into generation of inert gases, i.e. CO<sub>2</sub>/N<sub>2</sub> and simultaneously generation of steam which is effectively used in plants. Therefore, there is no Impact of conservation of Natural resources.

Approx. 33091 MT/year steam was generated in Incinerator, otherwise to generate 33091 MT steam we would have burnt 2758 K.L. of furnace oil.

#### PART - H

Additional measure/investment proposal for environmental protection including abatement of pollution prevention of pollution.

- We are fully equipped to handle hazardous waste, liquid effluents, air pollutants and detoxicate the same confirming to the norms specified by Pollution Control Board.
- 2. We are having Online Stack monitoring Gas Analyser and Records are being maintained.
- 3. We are having Online TOC Meter. Records are being maintained.
- 4 All the Treated water is being recycled in Cooling Tower and in Process.
- 5. We are having online Ambient Air Monitoring Station and Records are being maintained

#### PART-I

Any other particulars for improving the quality of the environment.

About 4000 additional trees were planted within our battery limit during monsoon season.

OF Sharke

(Signature of a person carrying out an industry, operation or process)

Date: 21/04/2021

Name

Mr. R P Sharma

Designation: Address : Assistant Vice President(Plant)
M/s. Hindusthan Chemicals

Company

GIDC Industrial Estate, P.O – Olpad,

Tal.: Olpad, Dist.: Surat- 394540.



#### Zero Liquid Discharge Scheme With Waste Minimization

# TREATMENT OF EFFLUENT STREAMS AT EXISTING AND PROPOSED ZLD SCENARIO

#### **Existing treatment scheme:**

The total process effluent generated from the plant is segregated into two streams as under.

#### 1. Low TDS and low COD process effluent

Over head Condensate generated from NaCN, SFCN & Ammonium Sulfate, contains High Ammonical Nitrogen & Cyanide collected in V511. This effluent passed through Cation based Ammonical Nitrogen Removal Unit, resulting in reduction of Ammonical Nitrogen less than 50 ppm, and gets mixed with Lean water from HCN plant, containing high cyanides.

Removal of high cyanide is being done through air stripping, (equipped with caustic scrubber where CN gets convert to NaCN slurry, this slurry is transferred to NaCN plant to recover NaCN. The bottom effluent from air stripper containing CN - < 5 ppm, is finally passes through Anion based cyanide removal Unit. In which CN contain gets minimized less than 0.2 ppm.

Above treated effluent of 114 KLD, along with blow downs of boiler & cooling tower of 128 KLD sent to equalization tank of existing, conventional treatment plant of 300 KLD consisting of primary and secondary units. The treated effluent is then sent to final treated effluent collection unit (guard pond no 1). The treated effluent confirming the GPCB norms sent to Guard Pond No. 2 for final discharge to masma khadi.

#### 2. High TDS and high COD process effluent

Combined effluent of alkaline nature from DPG, SDCN & SFCN is treated with Chlorine to detoxify free Cyanide and convert volatile organic impurities into stable high boiling chloro derivatives. Mixed effluent of 50 KLD after chlorination is passed through Nutch filter for filtration. The filtrate is fed to multi-stage evaporator of 80 KLD. The overhead condensate is obtained which is having very low TDS & COD. This condensate is being recycled to our existing plants. The contaminated salt approximately 2.5 MT/day recovered after evaporation through centrifuge is isolated & filled in HDPE Bag and sent to approved TSDF site for incineration for final disposal.

# Proposed Treatment scheme to achieve ZERO LIQUID DISCHARGE with waste minimization:

To achieve Zero Liquid Discharge, the existing segregated process effluent streams will be treated in following manner.

#### 1. Low TDS and low COD process effluent

Over head Condensate generated from NaCN, SFCN & Ammonium Sulfate, contains High Ammonical Nitrogen & Cyanide collected in V511. This effluent passed through Cation based Ammonical Nitrogen Removal Unit, resulting in reduction of Ammonical Nitrogen less than 50 ppm, and gets mixed with Lean water from HCN plant, containing high cyanides.

Removal of high cyanide is being done through air stripping, (equipped with caustic scrubber where CN gets convert to NaCN slurry, this slurry is transferred to NaCN plant to recover NaCN. The bottom effluent from air stripper containing CN - < 5 ppm, is finally passes through Anion based cyanide removal Unit. In which CN contain gets minimized less than 0.2 ppm.

Above treated effluent of 114 KLD, along with blow downs of boiler & cooling tower of 128 KLD sent to equalization tank of existing conventional treatment plant of 300 KLD consisting of primary and secondary units. The treated effluent is then sent to final treated effluent collection unit (guard pond no 1). The treated effluent confirming the GPCB norms sent to Guard Pond No.2.

The treated effluent from existing ETP, which is being presently discharged in Khadi, will be further treated in tertiary treatment plant which will include Pressure Sand Filter (PSF), Activated Carbon Tower (ACT) and Reverse Osmosis (RO) plant. The permeate from RO plant shall be recycled for reuse in the cooling tower. The reject form RO plant will sent to proposed MEE for further treatment. The over head condensate from MEE will be recycled for reuse in the cooling tower. Approximately 0.75 MT/day evaporated salt recovered after evaporation through centrifuge is isolated & filled in HDPE Bag and sent to approved TSDF site for land filling for final disposal.

#### 2. High TDS and high COD process effluent

The existing mixed effluent of 50 KLD shall be segregated in two streams and shall be treated as under.

#### A. Spent acid stream containing HCL of 12 KLD.

Another stream of spent Acid from DPG plant containing HC1 less than 5 %, will be neutralized & evaporated in an evaporator for removal of TDS as salt & overhead condensate will be recycled in cooling tower. Approximately 0.84 MT/day industrial salt recovered after evaporation through centrifuge is isolated & filled in HDPE Bag and sent to approved TSDF site for land filling for final disposal. We shall explore the possibility of selling as industrial salt to actual users.

#### B. High TDS & high COD stream with cyanide contamination of 38 KLD.

Mixed effluent of 38 KLD after chlorination is passed through Nutch filter for filtration. The filtrate is fed to multi-stage evaporator of 96 KLD. The overhead condensate is obtained which is having very low TDS &COD. This condensate shall be recycled to existing plants or shall be incinerated in proposed liquid waste incinerator of 100 KLD capacity. The contaminated salt approximately 1.5 MT/day recovered after evaporation through centrifuge shall be isolated & filled in HDPE Bag sent to approved TSDF site for incineration for final disposal. The ash from the incinerator of approximately 0.025 MT/day shall be isolated & filled in HDPE Bag sent to approved TSDF site for land filling for final disposal.

HCC Having two number of Membership of Approved TSDF Site. 1. M/s. NECL, Vadodara 2.M/s. BEIL , Ankleshwar

## Annexure-6

#### Membership Certificate of BEIL, Ankleshwar, Dahej & NECL, Baroda

Courties who were



Ammerino = 41

#### NANDESARI ENVIRONMENT CONTROL LTD.

SURVEY NO 519P G LD C ESTATE, NANDESARI-391 340. DIST. VADODARA PHONE (0265) 2840 818 FAX: (0265) 2841017. E-mail: next. sxll@yahos.co.in

#### TO WHOMSOEVER IT MAY CONCERN

THIS IS TO CERTIFY THAT M/S. HINDUSTHAN CHEMICALS COMPANY, GLOC INDUSTRIAL ESTATE, P.O.-OLPAD-994 540, DISTIBURAT IS OUR VALID MEMBER (MEMBERSHIP NO.206) OF COMMON HAZARDOUS WASTE DECINERATION FACILITY DEVELOPED BY NECL AT 519./P

FOR A ON BEHALF OF

MANDESARLENVIRONMENT CONTROLLED.

BABUBHALC PATEL

CHAIRMAN

16.08.2010 NANDESARI

.common Solid Waste Disposal and Incineration Facility





#### BEIL INFRASTRUCTURE LIMITED

(formerly known as Bharuch Errviro Infrastructure Limited)

20th November, 2019

To,
HINDUSTHAN CHEMICALS COMPANY
GIDC INDUSTRIAL ESTATE,
POST.OLPAD-394540,
TA: OLPAD, DIST: SURAT,
SURAT.

Sub: Membership Certificate for Common Incineration Facility.

Dear Sir,

You are a member of our Common Incinerator Facility and your membership No. is CI/OBD/085. We hereby certify that you have increased your booked quantity 10 MT / Year to 866 MT / Year.

As per norms we can only accept your hazardous incineration waste when you provide proper authorization of GPCB CCA with desired quantity also kindly ensure, The cyanide limit is under GPCB limit.

Thanking you,

Yours faithfully,

For, BEIL INFRASTRUCTURE LIMITED

(Formerly Known as Bharuch Enviro Infrastructure Ltd)

AUTHORISED SIGNATORY



#### BEIL INFRASTRUCTURE LIMITED

(formerly known as Bharuch Enviro Infrastructure Limited)

Ref. BEIL/ANK/2019

20<sup>TH</sup> November, 2019

To,
HINDUSTHAN CHEMICALS COMPANY
GIDC INDUSTRIAL ESTATE,
POST.OLPAD-394540,
TA: OLPAD, DIST: SURAT,
SURAT.

Sub: Membership Certificate for Common Solid Waste Disposal Facility.

Dear Sir.

We hereby certify that you have become member for 10 years up to 19/11/2029 for the common Solid/Hazardous waste disposal facility of BEIL INFRASTRUCTURE LIMITED (Formerly Known as Bharuch Enviro Infrastructure Limited), at GIDC, Dahej. You have booked solid waste quantity of 511 MT/Years. Your Membership No. is Oth/750.

Waste will be accepted after submitting valid authorization of GPCB.

Thanking you,

Yours faithfully,

For BEIL Infrastructure Limited.

(Formerly Known as Bharuch Enviro Infrastructure Limited.)

AUTHORISED SIGNATORY

Annexure-7

Closing Stock Disposal Category wise Solid Waste Generation & Disposal form December. 2020 to May, 2021 <u>≫</u> Generat May. 쭚 ion Disposal δg Generation <del>ج</del> ه Apr. 2021 Disposal ₹ 8 Generatio Mar. 2021 Disposal Generatio Feb. 2021 중 Disposal 중 Genera Jan. tion 쭁 Dispos <u>8</u> ē Generatio Opening stock Hydroxide Polythene Contamin Activated ETP(MEE) Category Residue Residue Sludge of ZLD Carbon Sludge Ferric Drums TOTAL Resin Liner ated iron ETP Sr 8 н ~ ന \_ Ŋ 

### CCA Copy and CC&A Amendment copy



# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone: (079) 23222425 (079) 23232152

Fax: (079) 23232156

Website:www.gpcb.go专编品P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transhoundary) Rules, 2016 framed under the Environmental (Protection) Act-1986. This Board is empowered to Grant CC&A.

And whereas Board has received consolidated consent application letter no. 136233 dated 22-04. 2018 for the Consolidated Consent and Authorization (CC & A) of this Board under the provisions frules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

#### CONSENTS AND AUTHORISATION:

(Under the provisions /rules of the aforesaid environmental acts)

To.

M/s. Hindusthan Chemicals Company

GIDC IND. Estate. Post:- Olpad-394540.

Tal: Olpad, Dist: Surat.

- Consent Order No. AWH-94173 Date of issue: 04-07-2018.
- The consents shall be valid upto 14-07-2023 for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant for manufacturing of the following items/ products (0

Sr. No.	Product	Quantity
1	Hydrogen Cyanide	5100 MT/Annum
	Sodium Cyanide	6372 MT/Annum
	Potassium Cyanide	2000 MT/Annum
4	Sodium ferro Cyanide	1000 MT/Annum
	Potassium ferro Cyanide	1000 MT/Annum
6	Diphenyl Guanidine	1 1260 MT/Annum
	Sodium dicyanide	300 MT/Annum
- 8	Mandelonitirle	2500 MT/Annum
9	Heat treatment salt	720 MT/Annom
10	Cyano hydrines	5000 MT/Annum
11	Nitrites	3000 MT/Annum
12	Cyanide based products	3500 MT/Annum

#### Subject to specific 9

- 1. Unit shall maintain zero discharge of wastewater. The evaporator shall be adequate to maintain zero liquid discharge. Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste
- Management Rules-2016 (solid waste as defined in Rule-3(46)).
- As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilities to replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.

Clean Gujarat Green Gujarat ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

- Industry shall obtain NOC from CGWA as per order of Hon. National Green Tribunal for the withdrawal of ground water.
- 5. Industry shall provide dedicated storage facility for fly ash.
- 6. Industry shall comply with fly ash notification 1999 as amended from time to time.
- 7. Industry shall achieve Zero liquid discharge through recycling/reuse evaporation.
- Unit shall strictly follow conditions mentioned EC issued by MOEF on date: 05/10/2010
   CTE order issued by GPCB vide letter no: GPCB/CTE/SRT-50(6)/88114.
- Cyanide stream & High TDS stream shall be segregated at source & Cyanide stream shall be given cyanide removal treatment & High TDS Stream shall be evaporated in Multi Effect Evaporator.
- Unit shall follow & implement applicable recommendation of cleaner production in Chemical industry, which is enclosed herewith this order.

#### 3. CONDITIONS UNDER THE WATER ACT:

- 3.1. Source of water: borewell & Local Body.
- 3.2. The quantity of the firsh water consumption for industrial purpose shall not exceed 643 K1/Day.
- 3.3. The quantity of the fresh water consumption for domestic purpose shall not exceed \$ KL/Day
- 3.4. The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 258 KL/Day.
- 3.5. Unit shall segregate two Streams & source.
  - Stream 1: Low COD Stream from utilities shall be treated in conventional ETP followed by RO & Multiple Effect Evaporator (MEE) to maintain the Zero liquid discharge at all time, RO reject shall not be used for any purpose.
  - Stream II: High COD Stream from DPG & SFCN Plant, after treatment for removal of cyanide & Ammonia Shall be mixed with Stream I & sent to MEE for maintaining Zero Liquid Discharge & RO Permeate (211.3 KLD) shall re-used for cooling water makeup. There shall be no discharge of industrial offluent
- 3.6. Industry shall provide fixed pipeline with flow meter for collection of segregated stream, reuse of RO Permeate and infer to MEE and maintain its records
- 3.7. The quantity of domestic waste water shall not exceed 15 KL/Day.
- 3.8. Sewage after conforming to the following standards shall be used for gardening & plantation within premises only:

PARAMETERS	GPCB NORMS
PH	6.5 TO 9.0
BOD	30 mg/l
TSS	Less than 100 mg/l.
Fecal Coliform (MPN-100 ml.	Less than 1000
MNP-100 ml)	1

- 3.9. Industry shall also provide fixed pipeline network for even distribution of treated Sewage on land for plantation within premises.
- 3.10. The applicant shall provide storage tank of adequate capacity to store treated sewage during rainy season for at latest 7 days.

#### 4. CONDITIONS UNDER THE AIR ACT:

4.1. The following shall be used as a fuel in Steam Boiler, incinerator, Salt incinerator, CPP and D.C.Set respectively.

Sr. No.	Utilities	Fuel	Quantity
, ,	Steam Boiler- 2nos	Natural yas or	14.000 M3/day or
J	(3.5 MT, each)	FO or	10 fight or
<u> </u>	<u> </u>	LDO CAL	10 lit/hr
		V/V	

	2	ă.	D.G.Set-I nos	Diesel	200 tit/hr		-
i			2250 KVA	•			i
4		_				 	3

4.2. The applicant shall install & operate comprehensive adequate air pollution control system in order to achieve prescribed norms.

4.3. The fine gas emission through stack attached to Steam Boiler. Solid waste incinerator. Salt incinerator. CPP and D.G.Set shall conform to the following standards:

Stack No.	Stack attached to		Air Pollution Control System	Parameters	Permissible Limit
1	Steam Boiler-	30	Cyclone	Particulate Matter	150 mg/NM <sup>5</sup>
	2nos	(Common	Separator	$SO_2$	100 ppm
	(3.5 MT, each)	Stack)		NO.	50 ppm
2	D.G.Set-1 nos	i f	in the six time	Particulate Manter	150 mg/NM <sup>2</sup>
	, 2250 KVA			· SO-	100 ppm
	Stand by			NO <sub>x</sub>	50 ppm 🔪 🔪

4.4. The process emission through various stacks/yent of reactor, process, vessel shall conform to the following standards:

No.	Process vessel to which the stack/ vent is attached	height in	Air Pollution Control System	Parameters	Permissible Limit
J	Tail gas incinerator	40		HCN HCL	30 mg/NM <sup>3</sup> 20 mg/NM <sup>3</sup>
2	Scrubber H.T.Plant	19	Water serubber & Bag Filter	PM HCN	150 mg/NM <sup>1</sup> 30 mg/NM <sup>2</sup>
3	Ammonium Salphate recovery	20	Ammonia absorption column	NH <sub>1</sub> O)	175 mg/NM <sup>3</sup>

4.5. Industry shall take adequate measure to control dusting due to storage, transportation & handling of Coal/Lignite & fly ash.

4.6. Industry shall comply with Coal handling guideline of the Board.

4.7. Industry shall comply with fly ash notification 1999 as amended from time to time.

4.8. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10 meters from the source) other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT
PM 10	100 Microgram/M3
PM 2.5	60 Microgram/M3
SO <sub>2</sub>	80 Microgram/M3
NOx	80 Microgram/M3

4.9. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attacked to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

4.10. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and 70 dB (A) during night time. Daytime is reckened in between 6a.m. and 10 p.m. and nighttime is reckened between 10 p.m. and 6 a.m.

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5. D.G. SETS CONDITIONS

The D.G. Set shall have acoustic enclosure and shall comply sith the standards specified at Sr. no. 95 of Schedule-Lof the rule-3 of L.P. Rules -1986 and Noise pollution level as per the Air Act-1981.

D.G. Sets standards:-

The flue gas emission through stack attached to D.G. Sets shall conform to the following standards.

The minimum height of stack to be provided with each of the generator set shall be H=h + 0.2 (KVA)12, where H= Total stack height in meter, h= height of the building in meters where or by the side of which the generator set is installed.

Noise from DG set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the users end.

c) The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side ( if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/ acoustic treatment. Under such circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion loss may be done at different points at 0.5 m from the acoustic enclosure/room, and the averaged.

d) The D.G. Set shall be provided with proper exhaust muffler with insertion loss of minimum 25.dB (A).

All efforts shall be made to bring down the noise level due to the D.G.Set, outside the premises, within the ambient noise requirements by proper siting and control measures.

Installation of a D.G. Sets must be strictly in compliance with the recommendations of the D.G.Set manufacturer.

A proper routine and preventive maintenance procedure for the D.G.Set should be set and followed in consultation with the DG Sct manufacture which would help prevent noise levels of the DG Set from deteriorating with use.

# 5. AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 | See rule 6 (2)}

Form for grant of authorization for occupier or operator handling Hazardous waste

5.1 Authorization order No: AWH-94173 date of Issue: 04-07-2018.

5.2 M/s. Hindusthan Chemicals Company, is hereby granted an authorization to operate facility of below for following hazardous wastes on the premises situated at GIDC IND. Estate, Post:-Olpad-394540, Tal:- Olpad, Dist:- Surat.

Sr. No.	Waste	Quantity MT/Year	Schedule-I/ Category	Facility
1	E IP Sludge	14 M1/Y sar	35.3	Collection, Storage, Transportation and disposal incineration at CHW1 facility of NECL, Nandesari.
7	Used or Spent Oil	1200 Lit/year	5.1	Collection, storage, transportation and diaposal by selling to Registered re-refiners.
3	Empty barrels/containers/ liners contaminated with hazardous chemicals/ wastes	400 Nos./year	33.1	Collection, storage transportation and disposal to authorized decontaminator
4	Activated Carbon	170 Kg/Day	A-10 Sch-II	Collection, Storage, Transportation and disposal incineration at CHWT facility of NECL, Nandesari.

5	Ferric Hydroxide	40	A-10	
		Kg/Day	Sch-tt_	
6	Iron Sludge	8	A-10	Collection, Storage,
	!	MT/year	Seh-II	Transportation and disposal
				incineration at CHWT facility of
	İ		I	NECL, Nandesari,
$\overline{7}$	Spent Catalyst	What so	Λ-10	Collection. Storage.
		ever	Sch-II	Pransportation and disposal
		Generate		incineration at CHWT facility of
		d	1	NECL, Nandesari.
8	Residues from ETP (MEE)	330	17.1	Collection, Storage,
	(In place of DPG)	MT/year	ļ	Transportation and disposal
				incineration at CHWT facility of
	]	ļ ·	1	NECL, Nandesari.
9	SFCN (Contaminated Salt)	700	A-10	Collection. Storage,
	]	Kg/Day	Sch-II	Transportation and disposal by
10	SDCN (Contaminated	500	A-10	land fill at CHWT facility of
•	Salt)	Kg/day	Sch-II	NECL, Nandesari.
TIT T	Residues from ZLD	1400	A-10	TSDF Landfill waste
		Kg/Day	Sch-II	
12	Ammonium Sulphate	2649	; 	Collection, storage Transportation
		MI/A	1	and disposal by setting to industry
				to authorized.
:		İ		

- 5.3 The authorization shall be valid up to 14-07-2023.
- 5.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.
- 5.5 The authorization is granted to operate a facility for coffection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.6.2 to the industry having valid CCA of this Board.

## 6. TERMS AND CONDITIONS OF AUTHORISATION

- The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.
- The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
- The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
- Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a beach of this authorization.
- 5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time:
- 6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"
- It is the duty of the authorized person to take prior permission of the Gujarat Polintion Control Board to close down the facility.
- The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- The record of consumption and fate of the imported hazardous and other wastes shall be maintained.

- 10. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
- The importer or exporter shall bear the cost of import or export and mitigation of damages if any
- An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardons Waste and Other Waste Rules, 2016.
- 13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time
- 14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.
- 15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30th day of June of every year for the preceding period April to March.
- In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.
- 17. As per "Public Liability Insurance Act-91" company shalf get Insurance Policy, if applicable,
- 18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
- 19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State of Union Territory Administration where the facility exists.
- 20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.
- Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003.
- 22. Industry shall have to display on-line data ourside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

#### 7. SPECIFIC CONDITIONS:-

- 7.1. The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
- 7.2. Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry in the passbook of the actual user.
- 7.3. In case of renewal of authorization, a self-certified compliance report in respect of effluent emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.
- 7.4. The occupier of the facility shall comply Standard operating procedure/guidelines published by MOEF&CC or CPCB or GPCB from time to time.
- 7.5. Unit shall comply provisions of E-Waste Management Rules-2016.
- 7.6. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy.
- 7.7. The occupiers of facilities shall not store the hazardous and other wastes for a period not exceeding ninety days. Prior permission of the Board shall be obtained for extension of the storage period.
- 7.8. The occupier shall maintain the records of generation, sale, storage, transport, recycling, co processing and disposal of hazardous waste and make available during the inspection.

7.9. The transportation of the hazardous waste shall be carried out in GPS mounted dedicated vehicles.

### 8. GENERAL CONDITIONS: -

8.1. Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.

8.2. Applicant shall also comply with the general conditions given in annexure 1.

8.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.

8.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire

situation normal.

8.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.

8.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

For and on behalf of

Gujarat Pollutjen Control Board

(Smt-Y.K. Upadhyay) Environmental Engineer Dare:-

NO: GPCB/CCA-SRT-50(13)/ID\_20643/

Issued to:

M/s. Hindusthan Chemicals Company

GIDC IND. Estate, Post:- Olpad-394540.

Tal:- Olpad, Dist:- Surat.



### **GUJARAT POLLUTION CONTROL BOARD**

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295 Fax : (079) 23232156

Website: www.gpcb.gov.in

Date:

#### CCA-Amendment (No. H-110283)

NO: GPCB/CCA-SRT-50(18)/ID-20643/ TO.

M/s. Hindpathan Chemicals Company

GIDC IND. Estate, P.O.- Olpad-394540, Tal: Olpad, Dist: Surat.

SUB: Amendment in the consolidated consent & Authorization of the Board.

REF: 1) CCA order No: - AWH-84173, Dated-04/07/2018 under various Environmental Acts/Rules.

2) Your CCA Amendment Application Inward ID No.175354 dated 24-04-2020.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 & framed under the Environment (Protection) Act-1986, The Board has granted CCA vide order No. AWH-94173 issued vide this office letter no: GPCB/CCA-SRT-50(18)/II)-20643/469341 dated 21/09/2018, valid up to 14/07/2023.

The Board has right to review and amend the conditions of the said CCA order.

The said CCA order is further amended as below.

1. This order shall be read as CCA-Amendment Order No. H-110283 date of issued 10-11-2020 valid up to 14-07-2023.

#### Subject to specific condition:

 Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).

 As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilities to replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.

 ladustry shall obtain NOC from CGWA as per order of Hon. National Green Tribunal for the withdrawal of ground water.

4. Industry shall provide dedicated storage facility for fly ash.

5. Industry shall comply with fly ash notification 1999 as amended from time to time.

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Page 1 of 4

M/s. Hindusthan Chemicals Company(ID-20643)

Clean Gujarat Green Gujarat

ISO - 9001 - 2008 & ISO - 14001 - 2004 Certified Organisation

- 3. Condition No. 6  $\clubsuit$  7 of the said CCA order is amended as below.
- 6. AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 [See rule 6 (2)]

Form for grant of authorization for occupier or operator handling Hazardous waste

6.1 Authorization order No:- H-110283 date of Issue: 10-11-2020.

6.2 M/s. Hindusthan Chemicals Companyis hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at GIDC IND. Estate, P.O.-

ir. Vo	Olpad-394540, Tal: Olpa Waste	Quantity MT/Year	Schedule-I/ Category	1
1	ETP Sludge	14 MT/Year	35.3	Collection. Storage. Transportation and disposal incineration at CHWIF facility of SEII. Ankleshwar.
2	Used or Spent Oil	1200 Lit/year	5.1	Collection, storage, transportation and disposal by selling to Registered re-refiners
3	Empty barrels/containers/ liners contaminated with hazardous chemicals wastes	400 Nos./year	33.1	Collection storage transportation and disposal to authorized decontaminator
4	Activated Carbon	170 Kg/Day	A-10 Seh-II	Collection Storage, Fransportation and disposal incineration at CHWIF
5	Ferric Hydroxide	40 Kg/Day	A-10 Sch-II	facility of BEIL Ankleshwar
6	Iron Sludge	8 MT/year	A-10 Sch-II	Collection Storage, Transportation and disposal incineration at CHWIF facility of BEIL Ankleshwar.
7	Spent Catalyst	What so ever Generated	A-10 Sch-II	Collection Storage. Transportation and disposal incineration at CHWII-facility of BEIL Ankleshwar.
8	Residues from ETP (MEE) (In place of DPG)	330 MT/year	17.1	Collection Storage. Transportation and disposal incineration at CHWIF facility of BEIL Ankleshwar.
9	SFCN (Contaminated Salt)	700 Kg/Day	A-10 Seh-II	Collection, Storage, Transportation and disposal incineration at CHWII
10	SDCN (Contaminated Salt)	500 Kg/day	A-10 Sch-II	facility of BEIL Ankleshwar.
11	Residues from ZLD	1400 Kg/Day	A-10 Sch-II	Collection. Storage, Transportation and disposal incineration at CHWII facility of BEIL Ankleshwar.

### **GUJARAT POLLUTION CONTROL BOARD**

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295 : (079) 23232156

Website: www.gpcb.gov.in

12	"HOT & COLD" used insulation material and "NON RECYCLE POLYTHENE"	ever	-	Collection, Storage, Transportation and disposal at TSDF facility of BEIL Dahej.
13	Used membranes	What so ever generated		Collection, Storage, Transportation and disposal at TSDF site of BEIL.  Dahej or approved recycler.

6.2 The authorization shall be valid up to 14-07-2023.

6.3 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

6.4 The authorization is granted to operate a facility for collection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.6.2 to the industry having valid CCA of this Board.

7. TERMS AND CONDITIONS OF AUTHORISATION

7.1. The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under

7.2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.

7.3. The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.

7.4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a beach of this authorization.

7.5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time:

7.6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"

7.7. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.

7.8. An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous and Other Waste Rules, 2016. 7.9. The imported hazardous and other wastes shall be fully insured for transit as well as for any

accidental occurrence and its clean-up operation.

7.10. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.

7.11. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization. Page 3 of 4

M/s. Hindusthan Chemicals Company(ID-20643)

Clean Gujarat Green Gujarat

ISO - 9001 - 2008 & ISO - 14001 - 2004 Certified Organisation

7.12. The importer or exporter shall bear the cost of import or export and mitigation of damages if

7.13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment. Forest and Climate Change or Central Pollution Control Board from time to

7.14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.

7.15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30<sup>th</sup> day of June of every year for the preceding period April to March.

7.16. In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.

7.17. As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.

7.18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of disearded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.

7.19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State of Union Territory Administration where the facility exists.

7.20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.

7.21. Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003

7.22. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

4. The rest of the conditions of the above referred CCA order shall remain unchanged. You are directed to comply with these conditions.

For and on behalf of Gujarat Pollution Control Board

(G.H.Trivedi)

Deputy Chief Environmental Engineer

63000 PET FEET N. 60000 DE 7 0

### License for Ammonia Storage



FORM 15 1Auxet CHRR-1 (See Rules 50 51, 54 and 55):[Aux 50 .01 54 at 55 20] Licence to Store Compressed gas in pressure vossel or vossels दान पार या पाने में संपीति तीस भण्डासनस्य के लिए अनुन्दित

ही भारतीय दिस्पोरक अभिनियम 1884 (1884 का 4) और उनके अधीन बनाए गए निवशों तमा इस अनुस्ति की अन्य शरी पर 1 दाब पाव र पातों में संपीडित मैस के अपझरण के लिए अनुसति सहर

Messa No Alee vi⊀3	Anne of Cariffe at		ubic purerised statit	Max working Pro (kg/cm²)/अधिकतम वक्तिम पेशर	Quantity Granted in egs(Liquified gas)किलोगम में जारी मान (विक्रिक्ट) गैसना
N-1924	Total Water capacit	squ'idd	220 0	#	

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UKSCRIPTION AND LOCATION OF THE LIGENSED PREMISES/हन्जन प्रोत्तमः का विवरण और अवस्थिती

DESCRIPTION AND LOCATION OF THE LIBERS SO PREMISES REQUESTED WITH AND ADDRESS OF A STATE OF THE RESERVENCE OF THE RESERV

SPACE FOR ENDORSEMENT OF RENEWALSHIP के ते प्रांक के लिए स्थान

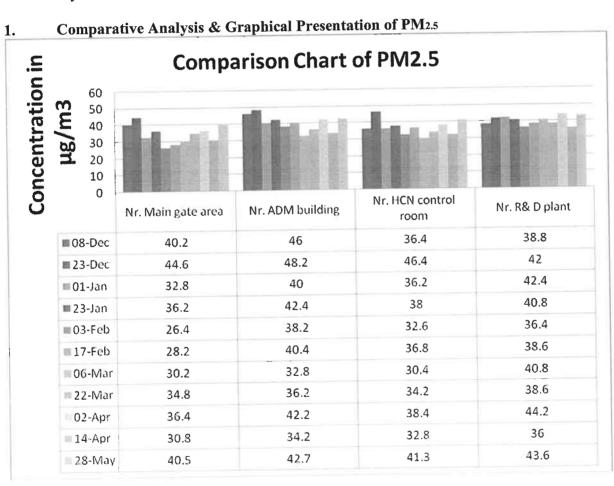
	Date of Renewalkships (8)	ाम क्षा प्रकारपुरम विश्व थी संस्थान के जानी	Signals is and stamp of the feeting outcomes producted that the contract of unique of their
this concested to recovative energial and concessation for for her horse years in the amount of sold for her horse years in the amount of the privilege of sold features and Mobile Pressure of the control of the contr	22:09/2020	30/09 7075	Mohanish Jana DCF Les Dy Chief Controller of Explanates Visitodara

The center is face to the conscious formation and found conforming the desired when existent desired to the conscious of the face of the desired when the control is the face of the face

## Ambient Air Sampling & Analysis Method, Analysis Report of Ambient Air and Work Place & Month Wise Comparison of Ambient Air Quality

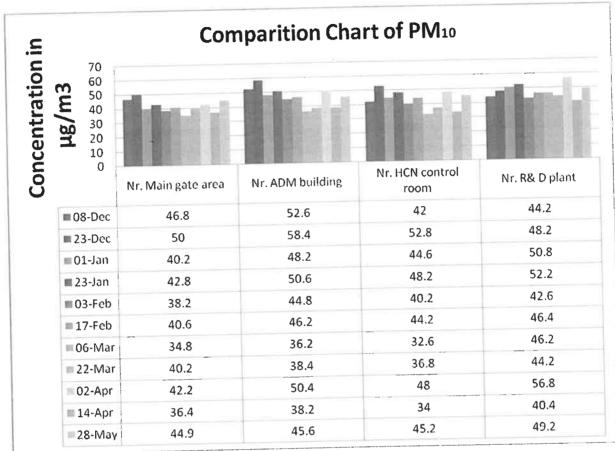
Sr. No.	Particulars	Method
1	Sampling procedures	Sampling was carried out as per instrument manual & IS 5182 guideline.
2	Analysis methodology	
ī	PM10	IS 5182 (Part 23): 2006 Reff. 2017
i li	PM2.5	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
lii	SO2	IS 5182 (Part 2): 2001 Reff. 2017
lv	NOx	IS 5182 (Part 6): 2016 Reff. 2017

### Monthly Variation in Ambient Air Quality for the period of December 2020 to May 2021



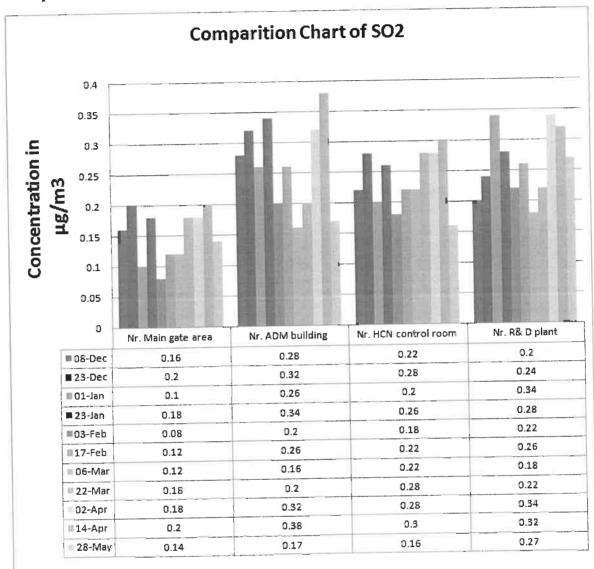
Note: All the values are expressed in μg/m3.

### 2. Comparative Analysis & Graphical Presentation of PM10



Note: All the values are expressed in µg/m3.

### 3. Comparative Analysis & Graphical Presentation of SO<sub>2</sub>



Note: All the values are expressed in  $\mu$ g/m3.

### 4. Comparative Analysis & Graphical Presentation of NOx

	0.8 0.6		<b>II</b>		Mar
Concentration in	1.6 1.4 1.2 0.8 0.6 0.4 0.2	Nr. Main gate area	Nr. ADM building	Nr. HCN control room	Nr. R& D plant/STF Plant
e	8-Dec	1	1.22	1.16	1.12
Ĕ	■ 23-Dec	0.12	1.4	1.34	1.28
	■01-Jan	0.36	0.48	0.42	0.62
	■23-Jan	0.42	0.56	0.46	0.4
	■ 03-Feb	0.32	0.42	0.36	0.56
	■ 17-Feb	0.36	0.48	0.4	0.44
	■ 06-Mar	0.28	0.32	0.4	0.36
	■ 22-Mar	0.32	0.38	0.44	0.4
	02-Apr	0.4	0.52	0.44	0.48
	■14-Apr	0.4	0.5	0.48	0.46
	■28-May	0.3	0.42	0.39	0.52

Note: All the values are expressed in  $\mu g/m3$ .



ISO :14001 : 2015 OH&S: 45001: 2018

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Page 1 of 18

### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540202		CERTIFICATE NO:	505/1	
		ISSUE DATE:	26/12/2020	
	Ambient Nr. Main Gate	LAB ID:	38/12	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
ALAMAN MATERIAL DATE	08/12/2020	SAMPLING TIME:	24 Hour	
SAMPLING DATE:	Twice in a Month	SAMPLE ID NO:	EESPL20120802	
PROTOCOL(PURPOSE):	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLING METHOD:	09/12/2020	SAMPLE RECEIVED TIME:	10:15 am	
SAMPLE RECEIVED DATE: TEST START DATE:	09/12/2020	TEST COMPLETION DATE:	12/12/2020	

	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	MAXIMUM: 33 °C
AMBIENT TEMPRATURE:	MINIMUM: 27 °C	
RELATIVE HUMIDITY:	MINIMUM: 26 %	MAXIMUM: 37 %
	SE	WIND SPEED: 10.0 Km/h
WIND DIRECTION:	JE TABLE	

**RESULT TABLE: Permissible TEST METHOD RESULT** UNIT SR. **PARAMETER** Limit NO: CPCB Guideline, Vol-1 NAAQMS/36/2012-13 μg/m³ 40.2 60 PM<sub>2.5</sub> 01 IS: 5182 (Part 23): 2006 Reff.2017 μg/m³ 46.8 100 02 PM<sub>10</sub> IS: 5182 (Part 2): 2001 Reff.2017 μg/m<sup>3</sup> 0.16 80 Sulphur Dioxide(SO<sub>2</sub>) 03 IS: 5182 (Part 6): 2016 Reff.2017 μg/m³ 1.0 80 Oxides of Nitrogen(NO<sub>x</sub>) 04 **EPA** method μg/m³ BDL HCL 05 Chromatographic method μg/m³ **BDL HCN** 06 CPCB Guideline, Vol-1 NAAQMS/36/2012-13 2.0 μg/m<sup>3</sup> NH<sub>3</sub> 07 GC Method BDL. ppm VOC(BTX)

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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Page 2 of 18

### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	505/2	
		ISSUE DATE:	26/12/2020	
	Ambient Nr. ADM Building	LAB ID:	39/12	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
· · · · · · · · · · · · · · · · · · ·	08/12/2020	SAMPLING TIME:	24 Hour	
SAMPLING DATE:	Twice in a Month	SAMPLE ID NO:	EESPL20120803	
PROTOCOL(PURPOSE):	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLING METHOD:		SAMPLE RECEIVED TIME:	10:15 am	
SAMPLE RECEIVED DATE:	09/12/2020	The second secon	12/12/2020	
TEST START DATE:	09/12/2020	TEST COMPLETION DATE:	12/12/2020	

	MINIMUM: 27 °C	MAXIMUM: 33 °C	
AMBIENT TEMPRATURE:		MAXIMUM: 37 %	
RELATIVE HUMIDITY:	MINIMUM: 26 %	WIND SPEED: 10.0 Km/h	
WIND DIRECTION:	SE	WIND SI CED: 200	

RESULT TABLE:					
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m <sup>3</sup>	46.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
		100	μg/m³	52.6	IS: 5182 (Part 23): 2006 Reff.2017
02	PM <sub>10</sub>	80	μg/m <sup>3</sup>	0.28	IS: 5182 (Part 2): 2001 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	-		IS: 5182 (Part 6): 2016 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	1.22	
05	HCL	-	μg/m³	BDL	EPA method
	HCN	-	μg/m³	BDL	Chromatographic method
06		-	μg/m <sup>3</sup>	2.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-1
07	NH <sub>3</sub>		рь/ 111		
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA) PREPARED BY: (TECHNICAL MANAGER)



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Page 3 of 18

### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	505/3	
		ISSUE DATE:	26/12/2020	
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control room	LAB ID:	40/12	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Ga & Filter papers for each PM	
	08/12/2020	SAMPLING TIME:	24 Hour	
SAMPLING DATE:	Twice in a Month	SAMPLE ID NO:	EESPL20120804	
PROTOCOL(PURPOSE):	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLING METHOD:	The state of the s	SAMPLE RECEIVE TIME:	10:15 am	
SAMPLE RECEIVE DATE: TEST START DATE:	09/12/2020 09/12/2020	TEST COMPLETION DATE:	12/12/2020	

	MINIMUM: 27 °C	MAXIMUM: 33 °C
AMBIENT TEMPRATURE:	MINIMUM: 26 %	MAXIMUM: 37 %
RELATIVE HUMIDITY:		WIND SPEED: 10.0 Km/h
WIND DIRECTION:	SE	

AND DIRECTION.  RESULT TABLE:						
SR.	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
NO:	DNA	60	μg/m³	36.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
01	PM <sub>2.5</sub>	100	μg/m³	42.0	IS: 5182 (Part 23): 2006 Reff.2017	
02	PM <sub>10</sub>		μg/m <sup>3</sup>	0.22	IS: 5182 (Part 2): 2001 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	-	-	IS: 5182 (Part 6): 2016 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	1.16		
		-	μg/m <sup>3</sup>	BDL	EPA method	
05	HCL		µg/m³	BDL	Chromatographic method	
06	HCN				CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
07	NH <sub>3</sub>	-	μg/m³	3.0	CPCB Guideline, Voi-1 NAAGWIJ/30/2012	
08	VOC(BTX)	•	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	505/4	
GIDC Industrial Estate, P.O. ( Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	26/12/2020	
	Ambient Nr. R & D Plant	LABID:	41/12	
SAMPLE DESCRIPTION: SAMPLE COLLECTED BY:	Earth Care Enviro	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
-	Solutions Pvt. Ltd. 08/12/2020	SAMPLING TIME:	24 Hour	
SAMPLING DATE:	The same of the sa	SAMPLE ID NO:	EESPL20120805	
PROTOCOL(PURPOSE):	Twice in a Month	AND THE RESERVE THE PARTY OF TH	Sealed	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	10:15 am	
SAMPLE RECEIVED DATE:	09/12/2020	SAMPLE RECEIVED TIME:		
TEST START DATE:	09/12/2020	TEST COMPLETION DATE:	12/12/2020	

	2700	MAXIMUM: 33 °C
AMBIENT TEMPRATURE:	MINIMUM: 27 °C	MAXIMUM: 37 %
RELATIVE HUMIDITY:	MINIMUM: 26 %	WIND SPEED: 10.0 Km/h
WIND DIRECTION:	SE	

ועט טוו	RECTION:		RESULT	TABLE:	
SR.	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
NO:		60	μg/m <sup>3</sup>	38.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
01	PM <sub>2.5</sub>	100	μg/m³	44.2	IS: 5182 (Part 23): 2006 Reff.2017
02	PM <sub>10</sub>				IS: 5182 (Part 2): 2001 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.20	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	1.12	IS: 5182 (Part 6): 2016 Reff.2017
hus		-	µg/m³	BDL	EPA method
05	HCL		μg/m <sup>3</sup>	BDL	Chromatographic method
06	HCN	-			CPCB Guideline, Vol-1 NAAQMS/36/2012-13
07	NH <sub>3</sub>	-	μg/m <sup>3</sup>	2.4	CPCB Guidenile, Vol-1 (VARQUIS) CS
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



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Page 5 of 18

### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	505/5	
GIDC Industrial Estate, P.O.	Olpad,	ISSUE DATE:	26/12/2020	
Tal.: Olpad, Dist.: Surat-394	Ambient Nr. Main Gate	LAB ID:	76/12	
SAMPLE COLLECTED BY:	Earth Care Enviro	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
	Solutions Pvt. Ltd. 23/12/2020	SAMPLING TIME:	24 Hour	
SAMPLING DATE:	Twice in a Month	SAMPLE ID NO:	EESPL20122302	
PROTOCOL(PURPOSE):	The second secon	PACKING/SEAL:	Sealed	
SAMPLING METHOD:	EESPL/SOP/AIR/01	SAMPLE RECEIVED TIME:	10:17 am	
SAMPLE RECEIVED DATE:	24/12/2020	The state of the s	26/12/2020	
TEST START DATE:	24/12/2020	TEST COMPLETION DATE:		

	MINIMUM: 27 °C	MAXIMUM: 33 °C
AMBIENT TEMPRATURE:	1	MAXIMUM: 37 %
RELATIVE HUMIDITY:	MINIMUM: 26 %	WIND SPEED: 10.0 Km/h
WIND DIRECTION:	SE DECITIONE.	

IND D	RECTION:		RESULT T	ABLE:	
SR.	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
NO:		60	μg/m³	44.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
01	PM <sub>2.5</sub>		μg/m <sup>3</sup>	50.0	IS: 5182 (Part 23): 2006 Reff.2017
02	PM <sub>10</sub>	100	-		IS: 5182 (Part 2): 2001 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m <sup>3</sup>	0.20	The state of the s
04	Oxides of Nitrogen (NO <sub>x</sub> )	80	μg/m³	0.12	IS: 5182 (Part 6): 2016 Reff.2017
-		-	μg/m <sup>3</sup>	BDL	EPA method
05	HCL		μg/m <sup>3</sup>	BDL	Chromatographic method
06	HCN	<u> </u>	-	1	CPCB Guideline, Vol-1 NAAQMS/36/2012-1:
07	NH <sub>3</sub>	-	μg/m <sup>3</sup>	3.6	CPCB Guideline, voi-1 NAAQIVI3/30/2012 1
			ppm	BDL	GC Method
80	VOC(BTX)		Phin		The state of the s

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

(TECHNICAL MANAGER)



# EARTH CARE ENVIRO SOLUTIONS PVI. LTD.



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Page 6 of 18

### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad,		CERTIFICATE NO:	505/6
		ISSUE DATE:	26/12/2020
Tal.: Olpad, Dist.: Surat-394	540	LAB ID:	77/12
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	110	Absorbing Media for each Gas
The state of the s	Earth Care Enviro	SAMPLE QUANTITY:	& Filter papers for each PM
SAMPLE COLLECTED BY:	Solutions Pvt. Ltd.	TIME TIME	24 Hour
SAMPLING DATE:	23/12/2020	SAMPLING TIME:	EESPL20122303
The second secon	Twice in a Month	SAMPLE ID NO:	
PROTOCOL(PURPOSE):		PACKING/SEAL:	Sealed
SAMPLING METHOD:	EESPL/SOP/AIR/01	SAMPLE RECEIVED TIME:	10:17 am
SAMPLE RECEIVED DATE:	24/12/2020	The state of the s	26/12/2020
TEST START DATE:	24/12/2020	TEST COMPLETION DATE:	20/12/2020

	27.0	MAXIMUM: 33 °C
AMBIENT TEMPRATURE:	MINIMUM: 27 °C	MAXIMUM: 37 %
RELATIVE HUMIDITY:	MINIMUM: 26 %	WIND SPEED: 10.0 Km/h
WIND DIRECTION:	SE PECHAT TABLE:	WIND SPEED. 10.0 Killy II

RESULT TABLE:						
SR.	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
NO:		60	μg/m <sup>3</sup>	48.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
01	PM <sub>2.5</sub>	100	μg/m <sup>3</sup>	58.4	IS: 5182 (Part 23): 2006 Reff.2017	
02	PM <sub>10</sub>		1	0.32	IS: 5182 (Part 2): 2001 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.52		
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	1.40	IS: 5182 (Part 6): 2016 Reff.2017	
-	The state of the s	-	μg/m <sup>3</sup>	BDL	EPA method	
05	HCL	-	μg/m³	BDL	Chromatographic method	
06	HCN	ļ	-	4.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-1	
07	NH <sub>3</sub>	-	μg/m³	4.2		
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	505/7
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	26/12/2020
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control	LAB ID:	78/12
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
	23/12/2020	SAMPLING TIME:	24 Hour
SAMPLING DATE:	47.4	SAMPLE ID NO:	EESPL20122304
PROTOCOL(PURPOSE):	Twice in a Month	A CONTRACTOR OF THE PARTY OF TH	Sealed
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	10:17 am
SAMPLE RECEIVED DATE:	24/12/2020	SAMPLE RECEIVED TIME:	
TEST START DATE:	24/12/2020	TEST COMPLETION DATE:	26/12/2020

		MAXIMUM: 33 °C
AMBIENT TEMPRATURE:	MINIMUM: 27 °C	MAXIMUM: 37 %
RELATIVE HUMIDITY:	MINIMUM: 26 %	WIND SPEED: 10.0 Km/h
WIND DIRECTION:	SE DECULT TABLE	

INDD	IRECTION:		RESULT TA	BLE:	
SR.	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
NO:	-	60	μg/m <sup>3</sup>	46.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
01	PM <sub>2.5</sub>	100	μg/m <sup>3</sup>	52.8	IS: 5182 (Part 23): 2006 Reff.2017
02	PM <sub>10</sub>		μg/m³	0.28	IS: 5182 (Part 2): 2001 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	-	-	IS: 5182 (Part 6): 2016 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	1.34	the state of the s
_		-	μg/m³	BDL	EPA method
05	HCL		μg/m³	BDL	Chromatographic method
06	HCN	_	the minutes of the same		CPCB Guideline, Vol-1 NAAQMS/36/2012-13
07	NH <sub>3</sub>		μg/m <sup>3</sup>	4.0	
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

- Moxadia

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:

PREPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	505/8	
		ISSUE DATE:	26/12/2020	
	Ambient Nr. R & D plant	LAB ID:	79/12	
SAMPLE DESCRIPTION: SAMPLE COLLECTED BY:	Earth Care Enviro	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
	Solutions Pvt. Ltd. 23/12/2020	SAMPLING TIME:	24 Hour	
SAMPLING DATE:		SAMPLE ID NO:	EESPL20122305	
PROTOCOL(PURPOSE):	Twice in a Month		Sealed	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	10:17 am	
SAMPLE RECEIVED DATE:	24/12/2020	SAMPLE RECEIVED TIME:	The state of the s	
TEST START DATE: 24/12/2020		TEST COMPLETION DATE:	26/12/2020	

	27.6	MAXIMUM: 33 °C
AMBIENT TEMPRATURE:	MINIMUM: 27 °C	MAXIMUM: 37 %
RELATIVE HUMIDITY:	MINIMUM: 26 %	WIND SPEED: 10.0 Km/h
WIND DIRECTION:	SE DESINT TABLE:	

טעאוו	IRECTION:		RESULT T	ABLE:		
SR. PARAMETER		Permissible Limit	I UNII I IV	RESULT	TEST METHOD	
NO:		60	μg/m³	42.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
01	PM <sub>2.5</sub>		μg/m <sup>3</sup>	48.2	IS: 5182 (Part 23): 2006 Reff.2017	
02	PM <sub>10</sub>	100	The state of the last of the l		IS: 5182 (Part 2): 2001 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.24		
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	1.28	IS: 5182 (Part 6): 2016 Reff.2017	
		-	μg/m³	BDL	EPA method	
05	HCL		μg/m <sup>3</sup>	BDL	Chromatographic method	
06	HCN		1	-	CPCB Guideline, Vol-1 NAAQMS/36/2012-1	
07	NH <sub>3</sub>	-	μg/m³	3.2	CPCB Guideline, voi-1 NAAQW3/35/2522	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



ISO 14001 2015 OH&S: 45001: 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	51/1	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	1/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	01/01/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21010101	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	02/01/2021	SAMPLE RECEIVED TIME:	10:03 am	
TEST START DATE:	02/01/2021	TEST COMPLETION DATE:	08/01/2021	

		0
AMBIENT TEMPRATURE:	MINIMUM: 20 °C	MAXIMUM: 28 °C
	MINIMUM: 39 %	MAXIMUM: 62 %
RELATIVE HUMIDITY:	Market Control of the	WIND SPEED: 10.8 Km/h
WIND DIRECTION:	NW	WIND SI LED. 2010 IMIT

**RESULT TABLE:** 

				THE PERSON NAMED IN	
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	32.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m <sup>3</sup>	40.2	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.10	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.36	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	_	μg/m³	BDL	EPA method
06	HCN	-	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	_	μg/m³	1.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	_	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	51/2	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ID:	2/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	01/01/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21010102	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	02/01/2021	SAMPLE RECEIVED TIME:	10:03 am	
TEST START DATE:	02/01/2021	TEST COMPLETION DATE:	08/01/2021	

	The state of the s	
AMBIENT TEMPRATURE:	MINIMUM: 20 °C	MAXIMUM: 28 °C
with the same of t	MINIMUM: 39 %	MAXIMUM: 62 %
RELATIVE HUMIDITY:	IVIII VIII VIII VIII VIII VIII VIII VI	WIND SPEED: 10.8 Km/h
WIND DIRECTION:	NW	WIND SPEED. 10.8 Killyli

RESULT TABLE:							
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD		
01	PM <sub>2.5</sub>	60	μg/m³	40.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
02	PM <sub>10</sub>	100	μg/m³	48.2	IS: 5182 (Part 23): 2006 Reff.2017		
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.26	IS: 5182 (Part 2): 2001 Reff.2017		
03	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.48	IS: 5182 (Part 6): 2016 Reff.2017		
05	HCL	_	μg/m³	BDL	EPA method		
06	HCN	-	μg/m³	BDL	Chromatographic method		
07	NH <sub>3</sub>	-	μg/m³	3.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
08	VOC(BTX)	-	ppm	BDL	GC Method		

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:
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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	51/3	
GIDC Industrial Estate, P.O Tal.: Olpad, Dist.: Surat-39	. Olpad,	ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control room	LAB ID:	3/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	01/01/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21010103	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVE DATE:	02/01/2021	SAMPLE RECEIVE TIME:	10:03 am	
TEST START DATE:	02/01/2021	TEST COMPLETION DATE:	08/01/2021	

AAADIENT TEAADDATI IDE.	MINIMUM: 20 °C	MAXIMUM: 28 °C	
AMBIENT TEMPRATURE:	MINIMUM: 39 %	MAXIMUM: 62 %	
RELATIVE HUMIDITY:		WIND SPEED: 10.8 Km/h	
WIND DIRECTION:	NW PECHIT TARIE:	TTHOUSE TO SERVICE TO	

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	36.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	44.6	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.20	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.42	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m <sup>3</sup>	BDL	EPA method
	HCN	-	μg/m³	BDL	Chromatographic method
06			μg/m <sup>3</sup>	2.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
07 08	NH <sub>3</sub> VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**Typoodi**q

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	51/4	
GIDC Industrial Estate, P.O. C Tal.: Olpad, Dist.: Surat-3945		ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	4/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	01/01/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21010104	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	02/01/2021	SAMPLE RECEIVED TIME:	10:03 am	
TEST START DATE:	02/01/2021	TEST COMPLETION DATE:	08/01/2021	

AMBIENT TEMPRATURE:	MINIMUM: 20 °C	MAXIMUM: 28 °C
RELATIVE HUMIDITY:	MINIMUM: 39 %	MAXIMUM: 62 %
WIND DIRECTION:	NW	WIND SPEED: 10.8 Km/h

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	42.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	50.8	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.34	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.62	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
06	HCN	-	μg/m³	BDL	Chromatographic method	
07	NH <sub>3</sub>	_	μg/m³	3.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	51/5	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	66/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21012302	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am	
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	01/02/2021	

AMBIENT TEMPRATURE:	MINIMUM: 28 °C	MAXIMUM: 30 °C
RELATIVE HUMIDITY:	MINIMUM: 30 %	MAXIMUM: 47 %
WIND DIRECTION:	EAST	WIND SPEED: 11.0 Km/h

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	36.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	42.8	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m <sup>3</sup>	0.18	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen (NO <sub>x</sub> )	80	μg/m³	0.42	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	_	μg/m³	BDL	EPA method	
06	HCN	-	μg/m³	BDL	Chromatographic method	
07	NH <sub>3</sub>	Forgonia Market	μg/m <sup>3</sup>	1.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	51/6	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ID:	67/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21012303	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am	
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	01/02/2021	

AMBIENT TEMPRATURE:	MINIMUM: 28 °C	MAXIMUM: 30 °C
RELATIVE HUMIDITY:	MINIMUM: 30 %	MAXIMUM: 47 %
WIND DIRECTION:	EAST	WIND SPEED: 11.0 Km/h

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	42.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	50.6	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.34	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.56	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
06	HCN	-	μg/m³	BDL	Chromatographic method	
07	NH <sub>3</sub>	-	μg/m³	3.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	51/7	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control Room	LAB ID:	68/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21012304	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am	
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	01/02/2021	

	The second secon	1	
AMBIENT TEMPRATURE:	MINIMUM: 28 °C	MAXIMUM: 30 °C	
RELATIVE HUMIDITY:	MINIMUM: 30 %	MAXIMUM: 47 %	
	EAST	WIND SPEED: 11.0 Km/h	
WIND DIRECTION:	EMOI		

	RESULT TABLE:									
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD					
01	PM <sub>2.5</sub>	60	μg/m³	38.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13					
02	PM <sub>10</sub>	100	μg/m³	48.2	IS: 5182 (Part 23): 2006 Reff.2017					
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.26	IS: 5182 (Part 2): 2001 Reff.2017					
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m <sup>3</sup>	0.46	IS: 5182 (Part 6): 2016 Reff.2017					
05	HCL	-	μg/m³	BDL	EPA method					
06	HCN	_	μg/m³	BDL	Chromatographic method					
07	NH <sub>3</sub>	-	μg/m³	2.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13					
08	VOC(BTX)	•	ppm	BDL	GC Method					

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA) PREPARED BY:
(TECHNICAL MANAGER)



ISO :14001 2015 OH&S: 45001:2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTO M/s. Hindusthan Chemicals	Company	CERTIFICATE NO:	51/8
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	03/02/2021
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	69/1
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21012305
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	01/02/2021

AMBIENT TEMPRATURE:	MINIMUM: 28 °C	MAXIMUM: 30 °C
RELATIVE HUMIDITY:	MINIMUM: 30 %	MAXIMUM: 47 %
WIND DIRECTION:	EAST	WIND SPEED: 11.0 Km/h

	RESULT TABLE:										
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD						
01	PM <sub>2.5</sub>	60	μg/m³	40.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13						
02	PM <sub>10</sub>	100	μg/m³	52.2	IS: 5182 (Part 23): 2006 Reff.2017						
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.28	IS: 5182 (Part 2): 2001 Reff.2017						
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.40	IS: 5182 (Part 6): 2016 Reff.2017						
05	HCL	-	μg/m³	BDL	EPA method						
06	HCN	-	μg/m³	BDL	Chromatographic method						
07	NH <sub>3</sub>	-	μg/m³	3.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13						
08	VOC(BTX)	-	ppm	BDL	GC Method						

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)

### (Prescribed under Rule 12-B)

### Register containing particulars of monitoring of working environment required under Section 7-A (a) (e).

#### 1. Name of the Department/Plant M/s. Hindusthan Chemicals Company

GIDC Industrial Estate, P.O. Olpad, Tal. Olpad, Dist.: Surat-394540

Raw materials, by-products and finished products involving in the process.

2. Raw Materials: As per attached K-Raw

3. By-Products: Ammonium Sulphate

4. Finished Products: As per attached K-Raw

5. Sampling Date:

23/01/2021

6. Sample Received Date: 25/01/2021

7. Test Start Date:

25/01/2021

Loc	Location/	Ideatified Compling						
Sr. No. Operation Mentioned		Operation Identified Sampling instrument used		Number of samples	Range		Average	
1	2	2 3 4		5	6		7	
	1	HCL	Handy Sampler		HCL (µg/m³)	<3.6		
		HCN	Handy Sampler		HCN (μg/m³)	<4.0		
		HC	Handy Sampler		$HC (\mu g/m^3)$	0.7		
1	NaCN	VOC	Handy Sampler	1	VOC (ppm)	0.3		
		Moisture	By Hydrometer		Moisture (%)	30.4		
		Ventilation Rate    Ventilation Rate			Ventilation Rate (m³/Sec)	3.6		

TWA concentration (As given in second schedule)	Reference method	Number of workers exposed at the location being monitored	Remarks	Signature of person taking samples	Name (in block letter)
8	9	10	11	12	13
	EPA Method			(Septe)	Dhaduk
	Chromatographic				
	GC Method	5	ok		
	GC Method		OK		Chirag
	Instrument Method		1	0	
	Instrument Method		<u> </u>	201	

### (Prescribed under Rule 12-B)

### Register containing particulars of monitoring of working environment required under Section 7-A (a) (e).

### 1. Name of the Department/Plant M/s. Hindusthan Chemicals Company

GIDC Industrial Estate, P.O. Olpad, Tal. Olpad, Dist.: Surat-394540

Raw materials, by-products and finished products involving in the process.

2. Raw Materials: As per attached K-Raw

3. By-Products: Ammonium Sulphate

4. Finished Products: As per attached K-Raw

5. Sampling Date:

23/01/2021

6. Sample Received Date: 25/01/2021

7. Test Start Date:

25/01/2021

	Location/		0 1	Airborne Contamination			
Sr. No.	Operation Mentioned	Identified Sampling contaminant instrument used		Number of samples	Range		Average
1	2	3	4	5	6		7
		HCL	Handy Sampler		HCL (μg/m <sup>3</sup> )	<3.6	
		HCN	Handy Sampler		HCN ( $\mu g/m^3$ )	<4.0	
	Charge	НС	Handy Sampler	$HC(\mu g/m^3)$ 0.	0.4		
1	DPG	VOC	Handy Sampler	1	VOC (ppm)	0.1	<u></u>
1	210	Moisture	By Hydrometer		Moisture (%)	22.8	
		Ventilation Rate  Ventilation Rate  Anemometer			Ventilation Rate (m³/Sec)	5.6	

TWA concentration (As given in second schedule)	Reference method	Number of workers exposed at the location being monitored	Remarks	Signature of person taking samples	Name (in block letter)
8	9	10	11	12	13
***************************************	EPA Method	, , , , , , , , , , , , , , , , , , ,		direct <sup>c</sup>	Dhaduk
	Chromatographic				
	GC Method	5	ok		
	GC Method		OR		Chirag
	Instrument Method				
	Instrument Method			701	17.

### (Prescribed under Rule 12-B)

### Register containing particulars of monitoring of working environment required under Section 7-A (a) (e).

### 1. Name of the Department/Plant M/s. Hindusthan Chemicals Company

GIDC Industrial Estate, P.O. Olpad, Tal. Olpad, Dist.: Surat-394540

Raw materials, by-products and finished products involving in the process.

2. Raw Materials: As per attached K-Raw

3. By-Products: Ammonium Sulphate

4. Finished Products: As per attached K-Raw

5. Sampling Date:

23/01/2021

6. Sample Received Date: 25/01/2021

7. Test Start Date:

25/01/2021

	Location/	n/	The state of the s				
Sr. Operation	Sr. Operation   Identified   Sampling   Contaminant   Instrument used		Number of samples	of Range		Average	
1			4	5	6		7
		HCL	Handy Sampler		HCL (µg/m³)	<3.6	
		HCN Handy Sampler		HCN (μg/m <sup>3</sup> )	<4.0		
		HC	Handy Sampler		HC (µg/m <sup>3</sup> )	0.6	
1	MDN	VOC	Handy Sampler	1	VOC (ppm)	0.2	
1		Moisture	By Hydrometer		Moisture (%)	26.2	
		Ventilation Rate	By Vane Anemometer		Ventilation Rate (m³/Sec)	5.2	

TWA concentration (As given in second schedule)	Reference method	Number of workers exposed at the location being monitored	Remarks	Signature of person taking samples	Name (in block letter)	
8	9	10	11	12	13	
	EPA Method Chromatographic		ok	Chilate !	Dhaduk Chirag	
	GC Method	5				
	GC Method	3	OK			
	Instrument Method					
	Instrument Method					



### (Prescribed under Rule 12-B)

### Register containing particulars of monitoring of working environment required under Section 7-A (a) (e).

### 1. Name of the Department/Plant M/s. Hindusthan Chemicals Company

GIDC Industrial Estate, P.O. Olpad, Tal. Olpad, Dist.: Surat-394540

### Raw materials, by-products and finished products involving in the process.

2. Raw Materials: As per attached K-Raw

3. By-Products: Ammonium Sulphate

4. Finished Products: As per attached K-Raw

5. Sampling Date:

23/01/2021

6. Sample Received Date: 25/01/2021

7. Test Start Date:

25/01/2021

	Location/	I.I. A.C. A	Compline				
Sr. Operation No. Mentioned		confaminant instrument lised		Number of samples	Range		Average
1	2	. 3	4	5	6		7
		HCL	Handy Sampler		HCL (µg/m³)	<3.6	
		HCN	Handy Sampler		HCN (μg/m <sup>3</sup> )	<4.0	
	D 11.1	HC	Handy Sampler		$HC (\mu g/m^3)$	0.2	
1	Behind	VOC	Handy Sampler	1	VOC (ppm)	ND	
	Canteen	Moisture	By Hydrometer		Moisture (%)	34.6	
		Ventilation Rate	By Vane Anemometer		Ventilation Rate (m³/Sec)	6.2	

TWA concentration (As given in second schedule)	Reference method	Number of workers exposed at the location being monitored	Remarks	Signature of person taking samples	Name (in block letter)
8	9	10	11	12	13
	EPA Method				1
	Chromatographic		ok	J. March	Dhaduk Chirag
	GC Method	5			
	GC Method	3			
	Instrument Method				1
	Instrument Method		1		





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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST M/s. Hindusthan Chemicals		CERTIFICATE NO:	87/1
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540202		ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	13/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21020302
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	10/02/2021

MINIMUM: 26 °C	MAXIMUM: 34 °C
MINIMUM: 18 %	MAXIMUM: 34 %
NW	WIND SPEED: 14.4 Km/h

RESULT TABLE:					
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	26.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	38.2	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.08	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.32	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m³	BDL	EPA method
06	HCN	-	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>		μg/m³	1.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

FOR EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

Honodia

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PRÉPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	87/2
		ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ID:	14/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21020303
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	10/02/2021

AMBIENT TEMPRATURE:	MINIMUM: 26 °C	MAXIMUM: 34 °C
	MINIMUM: 18 %	MAXIMUM: 34 %
RELATIVE HUMIDITY:		WIND SPEED: 14.4 Km/h
WIND DIRECTION:	NW	

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	38.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	44.8	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m <sup>3</sup>	0.20	IS: 5182 (Part 2): 2001 Reff.2017	
03	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.42	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
06	HCN	-	μg/m <sup>3</sup>	BDL	Chromatographic method	
	The second secon	-	μg/m³	2.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
07	NH <sub>3</sub>	-	ppm	BDL	GC Method	
80	VOC(BTX)		Phili			

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	87/3
		ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control room	LAB ID:	15/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21020304
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVE DATE:	04/02/2021	SAMPLE RECEIVE TIME:	10:21 am
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	10/02/2021

		0-
AMBIENT TEMPRATURE:	MINIMUM: 26 °C	MAXIMUM: 34 °C
	MINIMUM: 18 %	MAXIMUM: 34 %
RELATIVE HUMIDITY:		WIND SPEED: 14.4 Km/h
WIND DIRECTION:	NW	WIND SI LLD. 14.4 Kity ti

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	32.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	40.2	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO₂)	80	μg/m³	0.18	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.36	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
06	HCN	-	μg/m <sup>3</sup>	BDL	Chromatographic method	
		-	μg/m³	1.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
07	NH <sub>3</sub> VOC(BTX)		ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



## EARTH CARE



### POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	87/4 24/02/2021	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	16/2	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	24 Hour	
AND THE PERSON NAMED IN COLUMN 1997 AND THE PERSON NAMED IN COLUMN	Twice in a Month	SAMPLE ID NO:	EESPL21020305	
PROTOCOL(PURPOSE):	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLING METHOD:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am	
SAMPLE RECEIVED DATE: TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	10/02/2021	

AS ADJEST TENADDATUDE.	MINIMUM: 26 °C	MAXIMUM: 34 °C
AMBIENT TEMPRATURE:	MINIMUM: 18 %	MAXIMUM: 34 %
RELATIVE HUMIDITY:	The second secon	WIND SPEED: 14.4 Km/h
WIND DIRECTION:	NW	VVINU SPEED. 14.4 Killy ii

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	36.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m <sup>3</sup>	42.6	IS: 5182 (Part 23): 2006 Reff.2017	
	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.22	IS: 5182 (Part 2): 2001 Reff.2017	
03		80	μg/m <sup>3</sup>	0.56	IS: 5182 (Part 6): 2016 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )		μg/m <sup>3</sup>	BDL	EPA method	
05	HCL				Share a sample mathod	
06	HCN	-	μg/m³	BDL	Chromatographic method	
07	NH <sub>3</sub>	-	μg/m³	2.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH&5 45001 2018

## EARTH CARE

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	87/5 24/02/2021	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	59/2	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	17/02/2021	SAMPLING TIME:	24 Hour	
	Twice in a Month	SAMPLE ID NO:	EESPL21021702	
PROTOCOL(PURPOSE):	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLING METHOD:	18/02/2021	SAMPLE RECEIVED TIME:	10:06 am	
SAMPLE RECEIVED DATE: TEST START DATE:	18/02/2021	TEST COMPLETION DATE:	24/02/2021	

AN ADJUST TEN ADDATUDE:	MINIMUM: 22 °C	MAXIMUM: 31 °C
AMBIENT TEMPRATURE:	MINIMUM: 18 %	MAXIMUM: 74 %
RELATIVE HUMIDITY:	-	WIND SPEED: 18.0 Km/h
WIND DIRECTION:	NW	

	ILC TOTAL		RESULT T	ABLE:	
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	28.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m <sup>3</sup>	40.6	IS: 5182 (Part 23): 2006 Reff.2017
	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m <sup>3</sup>	0.12	IS: 5182 (Part 2): 2001 Reff.2017
03	The state of the s	80	μg/m <sup>3</sup>	0.36	IS: 5182 (Part 6): 2016 Reff.2017
04	Oxides of Nitrogen (NO <sub>x</sub> )		μg/m <sup>3</sup>	BDL	EPA method
05	HCL				
06	HCN	-	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	-	μg/m³	1.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUS M/s. Hindusthan Chemical	TOMER: s Company	CERTIFICATE NO:	87/6	
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	24/02/2021	
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ID:	60/2	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	17/02/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21021703	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	18/02/2021	SAMPLE RECEIVED TIME:	10:06 am	
TEST START DATE:	18/02/2021	TEST COMPLETION DATE:	24/02/2021	

7 100 4 TUDE.	MINIMUM: 22 °C	MAXIMUM: 31 °C
AMBIENT TEMPRATURE: RELATIVE HUMIDITY:	MINIMUM: 18 %	MAXIMUM: 74 %
	NW	WIND SPEED: 18.0 Km/h
WIND DIRECTION:	INV	

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	40.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	46.2	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	µg/m <sup>3</sup>	0.26	IS: 5182 (Part 2): 2001 Reff.2017	
03	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.48	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
	HCN	-	μg/m³	BDL	Chromatographic method	
06		-	μg/m <sup>3</sup>	3.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
07	NH <sub>3</sub>		-	BDL	GC Method	
08	VOC(BTX)		ppm	BUL	OC MICHION	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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Page 7 of 18

PREPARED BY:

### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	87/7
		ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control Room	LAB ID:	61/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	17/02/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21021704
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	18/02/2021	SAMPLE RECEIVED TIME:	10:06 am
TEST START DATE:	18/02/2021	TEST COMPLETION DATE:	24/02/2021

AMBIENT TEMPRATURE:	MINIMUM: 22 °C	MAXIMUM: 31 °C
RELATIVE HUMIDITY:	MINIMUM: 18 %	MAXIMUM: 74 %
WIND DIRECTION:	NW	WIND SPEED: 18.0 Km/h

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	36.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m <sup>3</sup>	44.2	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.22	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.40	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m³	BDL	EPA method
06	HCN	-	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	-	μg/m³	2.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	87/8
		ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	62/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	17/02/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21021705
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	18/02/2021	SAMPLE RECEIVED TIME:	10:06 am
TEST START DATE:	18/02/2021	TEST COMPLETION DATE:	24/02/2021

AMBIENT TEMPRATURE:	MINIMUM: 22 °C	MAXIMUM: 31 °C
RELATIVE HUMIDITY:	MINIMUM: 18 %	MAXIMUM: 74 %
WIND DIRECTION:	NW	WIND SPEED: 18.0 Km/h

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	38.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	46.4	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.26	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.44	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	- 1	μg/m³	BDL	EPA method
06	HCN	-	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	-	μg/m³	2.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:
(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



150 14001 2015 OH85:45001 2018

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Page 1 of 18

### **TEST REPORT/CERTIFICATE**

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540202		CERTIFICATE NO:	136/1
		ISSUE DATE:	30/03/2021
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	10/3
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21030603
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	15/03/2021

AMBIENT TEMPERATURE:	MINIMUM: 27 °C	MAXIMUM: 36 <sup>©</sup> C
RELATIVE HUMIDITY:	MINIMUM: 18 %	MAXIMUM: 44 %
WIND DIRECTION:	EW	WIND SPEED: 18.0 Km/h

**RESULT TABLE:** 

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	30.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m <sup>3</sup>	34.8	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.12	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.28	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m³	BDL	EPA method
06	HCN	_	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	1-	μg/m³	0.96	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)

PRÉPARED BY: (TECHNICAL MANAGER)



OH&S: 45001 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	136/2
		ISSUE DATE:	30/03/2021
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ID:	11/3
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21030604
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	15/03/2021

		1
AMBIENT TEMPERATURE:	MINIMUM: 27 °C	MAXIMUM: 36 °C
RELATIVE HUMIDITY:	MINIMUM: 18 %	MAXIMUM: 44 %
WIND DIRECTION:	EW	WIND SPEED: 18.0 Km/h

**RESULT TABLE: Permissible** SR. **TEST METHOD** UNIT RESULT **PARAMETER** Limit NO: CPCB Guideline, Vol-1 NAAQMS/36/2012-13 μg/m<sup>3</sup> 60 32.8 01 PM<sub>2.5</sub> IS: 5182 (Part 23): 2006 Reff.2017  $\mu g/m^3$ 36.2 100 02 PM<sub>10</sub> IS: 5182 (Part 2): 2001 Reff.2017 μg/m³ 0.16 80 Sulphur Dioxide(SO<sub>2</sub>) 03 IS: 5182 (Part 6): 2016 Reff.2017 μg/m³ 0.32 Oxides of Nitrogen(NOx) 80 04 **EPA** method \_ μg/m<sup>3</sup> **BDL** 05 HCL Chromatographic method μg/m<sup>3</sup> **BDL HCN** 06 CPCB Guideline, Vol-1 NAAQMS/36/2012-13 μg/m<sup>3</sup> 1.6 07 NH<sub>3</sub> **BDL** GC Method ppm · VOC(BTX)

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH&S 45001: 2018

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Page 3 of 18

#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	136/3	
GIDC Industrial Estate, P.C Tal.: Olpad, Dist.: Surat-39		ISSUE DATE:	30/03/2021	
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control room	LAB ID:	12/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21030605	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVE DATE:	08/03/2021	SAMPLE RECEIVE TIME:	10:00 am	
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	15/03/2021	

AMBIENT TEMPERATURE:	MINIMUM: 27 °C	MAXIMUM: 36 °C
RELATIVE HUMIDITY:	MINIMUM: 18 %	MAXIMUM: 44 %
WIND DIRECTION:	EW	WIND SPEED: 18.0 Km/h
WIND DIRECTION:	RESULT TABLE:	WIND SPEED:

	KESULI TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD		
01	PM <sub>2.5</sub>	60	μg/m³	30.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
02	PM <sub>10</sub>	100	μg/m³	32.6	IS: 5182 (Part 23): 2006 Reff.2017		
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.22	IS: 5182 (Part 2): 2001 Reff.2017		
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.40	IS: 5182 (Part 6): 2016 Reff.2017		
05	HCL	-	μg/m³	BDL	EPA method		
06	HCN	-	μg/m³	BDL	Chromatographic method		
07	NH <sub>3</sub>	-	μg/m³	2.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
08	VOC(BTX)	-	ppm	BDL	GC Method		

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

- Freathia

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	136/4 30/03/2021	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	13/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21030606	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am	
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	15/03/2021	

AMBIENT TEMPERATURE:	MINIMUM: 27 °C	MAXIMUM: 36 °C
RELATIVE HUMIDITY:	MINIMUM: 18 %	MAXIMUM: 44 %
WIND DIRECTION:	EW	WIND SPEED: 18.0 Km/h

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	40.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	46.2	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO₂)	80	μg/m³	0.18	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.36	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m³	BDL	EPA method
06	HCN	_	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	-	μg/m³	3.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)

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PREPARED BY: (TECHNICAL MANAGER)



ISO :14001 - 2015 OH&S: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	136/5 30/03/2021	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	73/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	22/03/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21032202	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	23/03/2021	SAMPLE RECEIVED TIME:	10:34 am	
TEST START DATE:	23/03/2021	TEST COMPLETION DATE:	30/03/2021	

AMBIENT TEMPERATURE:	MINIMUM: 25 °C	MAXIMUM: 37 °C	
RELATIVE HUMIDITY:	MINIMUM: 19 %	MAXIMUM: <b>76</b> %	
WIND DIRECTION:	WEST	WIND SPEED: 18.0 Km/h	

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	34.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	40.2	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.18	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen (NO <sub>x</sub> )	80	μg/m³	0.32	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
06	HCN	-	μg/m³	BDL	Chromatographic method	
07	NH <sub>3</sub>	-	μg/m³	1.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	136/6 30/03/2021	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ID:	74/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	22/03/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21032203	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	23/03/2021	SAMPLE RECEIVED TIME:	10:34 am	
TEST START DATE:	23/03/2021	TEST COMPLETION DATE:	30/03/2021	

0.00
AXIMUM: 37 °C
XIMUM: 76 %
The second secon
ND SPEED: 18.0 Km/h
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RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	36.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	38.4	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.20	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.38	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m <sup>3</sup>	BDL	EPA method	
	HCN	-	μg/m <sup>3</sup>	BDL	Chromatographic method	
06		_	μg/m <sup>3</sup>	1.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
07	NH <sub>3</sub>		-	-		
08	VOC(BTX)		ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



OH&5: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	136/7	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:	30/03/2021	
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control Room	LAB ID:	75/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	22/03/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21032204	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	23/03/2021	SAMPLE RECEIVED TIME:	10:34 am	
TEST START DATE:	23/03/2021	TEST COMPLETION DATE:	30/03/2021	

		MAXIMUM: 37 °C
AMBIENT TEMPERATURE:	MINIMUM: 25 °C	MAXIMUM: 37 C
	MINIMUM: 19 %	MAXIMUM: 76 %
RELATIVE HUMIDITY:	MIMINION. 13 70	WIND SPEED: 18.0 Km/h
WIND DIRECTION:	WEST	WIND SPEED. 10.0 KIN/II

RESULT TABLE:						
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	34.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m <sup>3</sup>	36.8	IS: 5182 (Part 23): 2006 Reff.2017	
	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.28	IS: 5182 (Part 2): 2001 Reff.2017	
03	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m <sup>3</sup>	0.44	IS: 5182 (Part 6): 2016 Reff.2017	
04		-,	μg/m <sup>3</sup>	BDL	EPA method	
05	HCL	-	μg/m <sup>3</sup>	BDL	Chromatographic method	
06	HCN				CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
07	NH <sub>3</sub>		μg/m³	2.0	CPCB Guideline, voi-1 NAAQivi3/30/2012-13	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

(TECHNICAL MANAGER)



ISO :9001 : 2015 ISO :14001 : 2015 OH&S : 45001 : 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	136/8
GIDC Industrial Estate, P.O. O Tal.: Olpad, Dist.: Surat-3945	Ipad, 40	ISSUE DATE:	30/03/2021
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	76/3
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	22/03/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21032205
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	23/03/2021	SAMPLE RECEIVED TIME:	10:34 am
TEST START DATE:	23/03/2021	TEST COMPLETION DATE:	30/03/2021

	0-0-	MAXIMUM: 37 °C
AMBIENT TEMPERATURE:	MINIMUM: 25 °C	
	MINIMUM: 19 %	MAXIMUM: <b>76</b> %
RELATIVE HUMIDITY:		WIND SPEED: 18.0 Km/h
WIND DIRECTION:	WEST	WIND SI LED. 2010 Idiny ii

RESULT TABLE:							
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD		
01	PM <sub>2.5</sub>	60	μg/m³	38.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
02	PM <sub>10</sub>	100	μg/m³	44.2	IS: 5182 (Part 23): 2006 Reff.2017		
	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m <sup>3</sup>	0.22	IS: 5182 (Part 2): 2001 Reff.2017		
03		80	μg/m <sup>3</sup>	0.40	IS: 5182 (Part 6): 2016 Reff.2017		
04	Oxides of Nitrogen(NO <sub>x</sub> )	-	μg/m <sup>3</sup>	BDL	EPA method		
05	HCL			BDL	Chromatographic method		
06	HCN	<u> </u>	μg/m³	DUL			
07	NH <sub>3</sub>	-	μg/m³	2.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
08	VOC(BTX)	-	ppm	BDL	GC Method		

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

- Horadia

AUTHORISED SIGNATORY: (SURESH MORADIA) PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001: 2018

# EARTH CARE

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/1
GIDC Industrial Estate, P.O. ( Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	26/04/2021
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	8/4
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	02/04/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21040203
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
	03/04/2021	SAMPLE RECEIVED TIME:	10:07 am
SAMPLE RECEIVED DATE: TEST START DATE:	03/04/2021	TEST COMPLETION DATE:	12/04/2021

	0-	MAXIMUM: 32 °C
AMBIENT TEMPERATURE:	MINIMUM: 26 °C	The second secon
	MINIMUM: 44 %	MAXIMUM: 78 %
RELATIVE HUMIDITY:	The second secon	WIND SPEED: 21.6 Km/h
WIND DIRECTION:	SW	

	INCCTION.		RESULT T	ABLE:	
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
-	PM <sub>2.5</sub>	60	μg/m³	36.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
01	-	100	μg/m³	42.2	IS: 5182 (Part 23): 2006 Reff.2017
02	PM <sub>10</sub>		μg/m <sup>3</sup>	0.18	IS: 5182 (Part 2): 2001 Reff.2017
03	Sulphur Dioxide(SO₂)	80			IS: 5182 (Part 6): 2016 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.40	No. of the second secon
05	HCL	-	μg/m³	BDL	EPA method
	The second secon	_	μg/m³	BDL	Chromatographic method
06	HCN	-	μg/m <sup>3</sup>	1.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
07	NH <sub>3</sub>		hg/III	1.2	The state of the s
08	VOC(BTX)		ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA) PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001 2018

# EARTH CARE

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/2
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:	26/04/2021
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ID:	9/4
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	02/04/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21040204
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	03/04/2021	SAMPLE RECEIVED TIME:	10:07 am
TEST START DATE:	03/04/2021	TEST COMPLETION DATE:	12/04/2021

AMBIENT TEMPERATURE:	MINIMUM: 26 °C	MAXIMUM: 32 °C
RELATIVE HUMIDITY:	MINIMUM: 44 %	MAXIMUM: <b>78</b> %
WIND DIRECTION:	SW	WIND SPEED: 21.6 Km/h

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	42.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	50.4	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.32	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.52	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m³	BDL	EPA method
06	HCN		μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	_	μg/m <sup>3</sup>	1.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	and the second second	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



OH&S: 45001 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/3	
GIDC Industrial Estate, P.O Tal.: Olpad, Dist.: Surat-39	•	ISSUE DATE:	26/04/2021	
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control room	LAB ID:	10/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	02/04/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21040205	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVE DATE:	03/04/2021	SAMPLE RECEIVE TIME:	10:07 am	
TEST START DATE:	03/04/2021	TEST COMPLETION DATE:	12/04/2021	

AMBIENT TEMPERATURE:	MINIMUM: 26 °C	MAXIMUM: 32 °C
RELATIVE HUMIDITY:	MINIMUM: 44 %	MAXIMUM: <b>78</b> %
WIND DIRECTION:	SW	WIND SPEED: 21.6 Km/h

	RESULT TABLE:						
SR. NO:	PARAMETER Permissible Limit	DADAMETER UNIT RESULT	TEST METHOD				
01	PM <sub>2.5</sub>	60	μg/m³	38.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
02	PM <sub>10</sub>	100	μg/m³	48.0	IS: 5182 (Part 23): 2006 Reff.2017		
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.28	IS: 5182 (Part 2): 2001 Reff.2017		
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.44	IS: 5182 (Part 6): 2016 Reff.2017		
05	HCL	-	μg/m³	BDL	EPA method		
06	HCN	-	μg/m³	BDL	Chromatographic method		
07	NH <sub>3</sub>	-	μg/m³	2.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
08	VOC(BTX)	-	ppm	BDL	GC Method		
	1						

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/4	
GIDC Industrial Estate, P.O. O Tal.: Olpad, Dist.: Surat-39454		ISSUE DATE:	26/04/2021	
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	11/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	02/04/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21040206	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	03/04/2021	SAMPLE RECEIVED TIME:	10:07 am.	
TEST START DATE:	03/04/2021	TEST COMPLETION DATE:	12/04/2021	

AMBIENT TEMPERATURE:	MINIMUM: 26 °C	MAXIMUM: 32 °C
RELATIVE HUMIDITY:	MINIMUM: 44 %	MAXIMUM: 78 %
WIND DIRECTION:	sw	WIND SPEED: 21.6 Km/h

RESULT TABLE:

		_	RESOLI TABLE.		
SR. NO:	PARAMETER	PARAMETER Permissible Limit		RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	44.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	56.8	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	µg/m³	0.34	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.48	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m³	BDL	EPA method
06	HCN	-	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	-	μg/m³	3.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



# EARTH CARE ENVIROSOLUTIONS EVILLED

## POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/5
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:	26/04/2021
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	59/4
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	24 Hour
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21041402
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021

AMBIENT TEMPERATURE:	MINIMUM: 28 °C	MAXIMUM: 32 °C
RELATIVE HUMIDITY:	MINIMUM: 39 %	MAXIMUM: 52 %
WIND DIRECTION:	NW	WIND SPEED: 10.8 Km/h

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	30.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	36.4	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.20	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen (NO <sub>x</sub> )	80	μg/m³	0.40	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m³	BDL	EPA method
06	HCN	-	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	-	μg/m³	1.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001 2018

# EARTH CARE

## POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/6	
GIDC Industrial Estate, P.O Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:	26/04/2021	
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ID:	60/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21041403	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am	
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021	

AMBIENT TEMPERATURE:	MINIMUM: 28 °C	MAXIMUM: 32 °C
RELATIVE HUMIDITY:	MINIMUM: 39 %	MAXIMUM: 52 %
WIND DIRECTION:	NW	WIND SPEED: 10.8 Km/h

**RESULT TABLE:** 

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	34.2	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	38.2	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.38	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.50	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	-	μg/m <sup>3</sup>	BDL	EPA method
06	HCN	-	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	-	μg/m³	1.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/7	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad, 540	ISSUE DATE:	26/04/2021	
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control Room	LAB ID:	61/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21041404	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am	
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021	

	0000	MAXIMUM: 32 °C
AMBIENT TEMPERATURE:	MINIMUM: 28 °C	
	MINIMUM: 39 %	MAXIMUM: 52 %
RELATIVE HUMIDITY:	IVIII VIII VIII VIII VIII VIII VIII VI	WIND COEED, 10 9 Km/h
WIND DIRECTION:	NW	WIND SPEED: 10.8 Km/h

RESULT TABLE:							
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD		
01	PM <sub>2.5</sub>	60	μg/m³	32.8	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
02	PM <sub>10</sub>	100	μg/m³	34.0	IS: 5182 (Part 23): 2006 Reff.2017		
	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m <sup>3</sup>	0.30	IS: 5182 (Part 2): 2001 Reff.2017		
03	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m <sup>3</sup>	0.48	IS: 5182 (Part 6): 2016 Reff.2017		
05	HCL	-	μg/m³	BDL	EPA method		
06	HCN		μg/m³	BDL	Chromatographic method		
07	NH <sub>3</sub>		μg/m³	1.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
08	VOC(BTX)	_	ppm	BDL	GC Method		

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



ISO :14001 2015 OH&S: 45001, 2018

# EARTH CARE

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	175/8 26/04/2021	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	62/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	24 Hour	
PROTOCOL(PURPOSE):	Twice in a Month	SAMPLE ID NO:	EESPL21041405	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am	
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021	

	MINIMUM: 28 °C	MAXIMUM: 32 °C	
AMBIENT TEMPERATURE:	MINIMUM: 39 %	MAXIMUM: 52 %	
RELATIVE HUMIDITY:	NW	WIND SPEED: 10.8 Km/h	
WIND DIRECTION:	1444		

RESULT TABLE:						
SR. NO:	PARAMETER	PARAMETER Permissible Limit	UNIT RESULT	TEST METHOD		
01	PM <sub>2.5</sub>	60	μg/m³	36.0	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m <sup>3</sup>	40.4	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.32	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.46	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
06	HCN	-	μg/m <sup>3</sup>	BDL	Chromatographic method	
07	NH <sub>3</sub>	_	μg/m³	2.4	CPCB Guideline, Vol-1 NAAQMS/36/2012-1:	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

TADROGIA **AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH85 45001 2018

# EARTH CARE



### POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

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Page 1 of 14

### .TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. HINDUSTHAN CHEMICALS COMPANY		CERTIFICATE NO:	240/1
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:	07/06/2021
SAMPLE DESCRIPTION:	Ambient Nr. Main Gate	LAB ID:	113/5
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	24 Hours
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052806
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	03/06/2021

AMBIENT TEMPERATURE:	MINIMUM: 29 °C	MAXIMUM: 33 °C
RELATIVE HUMIDITY:	MINIMUM: 56 %	MAXIMUM: 75 %
WIND DIRECTION:	sw	WIND SPEED: 26 Km/h
	DECHIT TARIE	

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD
01	PM <sub>2.5</sub>	60	μg/m³	40.5	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
02	PM <sub>10</sub>	100	μg/m³	44.9	IS: 5182 (Part 23): 2006 Reff.2017
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.14	IS: 5182 (Part 2): 2001 Reff.2017
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.30	IS: 5182 (Part 6): 2016 Reff.2017
05	HCL	_	μg/m³	BDL	EPA method
06	HCN	_	μg/m³	BDL	Chromatographic method
07	NH <sub>3</sub>	7	μg/m <sup>3</sup>	0.95	CPCB Guideline, Vol-1 NAAQMS/36/2012-13
-08	VOC(BTX)	-	ppm	BDL	GC Method

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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Page 2 of 14

#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. HINDUSTHAN CHEMICALS COMPANY		CERTIFICATE NO:	240/2	
GIDC Industrial Estate, P.O Tal.: Olpad, Dist.: Surat-39		ISSUE DATE:	07/06/2021	
SAMPLE DESCRIPTION:	Ambient Nr. ADM Building	LAB ÌÒ:	114/5	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	24 Hours	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052807	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am	
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	03/06/2021	

AMBIENT TEMPERATURE:	MINIMUM: 29 °C	MAXIMUM: 33 °C
RELATIVE HUMIDITY:	MINIMUM: 56 %	MAXIMUM: 75 %
WIND DIRECTION:	SW	WIND SPEED: 26 Km/h

RESULT TABLE:							
SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD		
01	PM <sub>2.5</sub>	60	μg/m³	42.7	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
02	PM <sub>10</sub>	100	μg/m³	45.6	IS: 5182 (Part 23): 2006 Reff.2017		
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.17	IS: 5182 (Part 2): 2001 Reff.2017		
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.42	IS: 5182 (Part 6): 2016 Reff.2017		
05	HCL		μg/m³	BDL	EPA method		
06	HCN	-	μg/m³	BDL	Chromatographic method		
07	NH <sub>3</sub>	-	μg/m³	1.9	CPCB Guideline, Vol-1 NAAQMS/36/2012-13		
08	VOC(BTX)	-	ppm	BDL	GC Method		

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



(SO :9001 : ISO :14001 2015 OH&S: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. HINDUSTHAN CHEMICALS COMPANY		CERTIFICATE NO:	240/3	
GIDC Industrial Estate, P.C Tal.: Olpad, Dist.: Surat-39		ISSUE DATE:	07/06/2021	
SAMPLE DESCRIPTION:	Ambient Nr. HCN Control room	LAB.ID:	115/5	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM	
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	24 Hours	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052808	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVE DATE:	29/05/2021	SAMPLE RECEIVE TIME:	10:47 am	
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	03/06/2021	

AMBIENT TEMPERATURE:	MINIMUM: 29 °C	MAXIMUM: 33 °C
RELATIVE HUMIDITY:	MINIMUM: 56 %	MAXIMUM: 75 %
WIND DIRECTION:	SW	WIND SPEED: 26 Km/h

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	41.3	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	45.2	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.16	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.39	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
06	HCN	•	μg/m³	BDL	Chromatographic method	
07	NH <sub>3</sub>	-	μg/m³	2.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



150 :9001 ISO :14001 2015 OH&S: 45001 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOM/s. HINDUSTHAN CHEMIC	ALS COMPANY	CERTIFICATE NO:	240/4
GIDC Industrial Estate, P.O. ( Tal.: Olpad, Dist.: Surat-3945		ISSUE DATE:	07/06/2021
SAMPLE DESCRIPTION:	Ambient Nr. STP	LAB ID:	116/5
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Filter papers for each PM
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	24 Hours
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052809
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	03/06/2021

AMBIENT TEMPERATURE:	MINIMUM: 29 °C	MAXIMUM: 33 °C
RELATIVE HUMIDITY:	MINIMUM: 56 %	MAXIMUM: 75 %
WIND DIRECTION:	sw	WIND SPEED: 26 Km/h

**RESULT TABLE:** 

SR. NO:	PARAMETER	Permissible Limit	UNIT	RESULT	TEST METHOD	
01	PM <sub>2.5</sub>	60	μg/m³	43.6	CPCB Guideline, Vol-1 NAAQMS/36/2012-13	
02	PM <sub>10</sub>	100	μg/m³	49.2	IS: 5182 (Part 23): 2006 Reff.2017	
03	Sulphur Dioxide(SO <sub>2</sub> )	80	μg/m³	0.27	IS: 5182 (Part 2): 2001 Reff.2017	
04	Oxides of Nitrogen(NO <sub>x</sub> )	80	μg/m³	0.52	IS: 5182 (Part 6): 2016 Reff.2017	
05	HCL	-	μg/m³	BDL	EPA method	
06	HCN	-	μg/m³	BDL	Chromatographic method	
07	NH <sub>3</sub>	-	μg/m³	3.5	3.5 CPCB Guideline, Vol-1 NAAQMS/36/2012	
08	VOC(BTX)	-	ppm	BDL	GC Method	

Note: BDL: Below Detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

**PREPARED BY:** (TECHNICAL MANAGER)





### National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



## CERTIFICATE OF ACCREDITATION

## EARTH CARE ENVIRO SOLUTIONS PRIVATE LIMITED

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at
Moradia House, 31-32, Shiv Ashish Industrial
Estate Co. Op. Society-II, South Zone Road,
Udhna Magadalla, Surat, Gujarat
in the field of

## **TESTING**

Certificate Number TC-7843

**Issue Date** 

11/09/2018

Valid Until 10/09/2020

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL



Anil Relia
Chief Executive Officer



# National Accreditation Board for Testing and Calibration Laboratories (NABL)

# Directory of Accredited Testing Laboratories

As on: 30-June-2020

### Annexure-11

## Noise Level Monitoring Methodology, Noise Level Report & Month Wise Comparison

### Noise level monitoring:

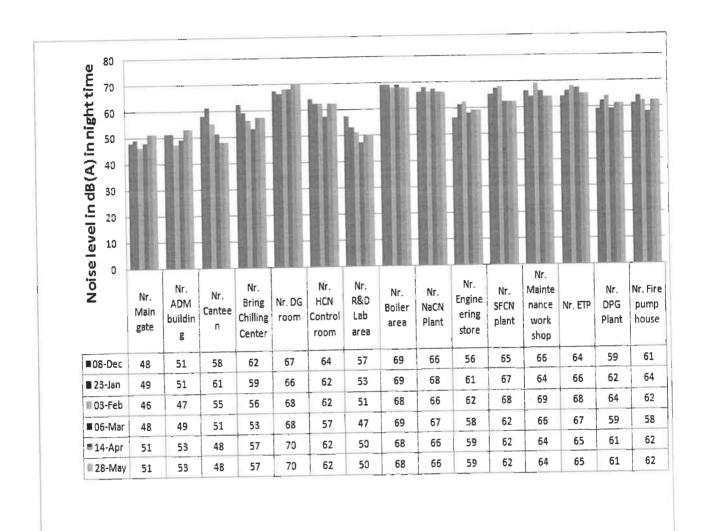
Noise level monitoring was carried out in the vicinity of the source, and nearby area within the factory premises where there is continuous presence of humans. Noise level monitoring was carried out during day time and night time at 15 locations in the premises and total 30 nos. of noise levels were recorded. Sound level meter was used for the noise monitoring.

## Monthly Variation in Noise Level for the period of December 2020 to May 2021

## 1. Comparative Analysis & Graphical Presentation of Noise Level (Day Time)

80000000000000000000000000000000000000	11		h			I								1	
	Nr. Main gate	Nr. ADM buildi ng	Nr. Cant een	Nr. Bring Chilli ng Cent er	Nr. DG room	Nr. HCN Contr ol room	Nr. R&D Lab area	Nr. Boile r area	Nr. NaCN Plant	Nr. Engin eerin g store	SFCN plant	Nr. Main tena nce work shop	Nr. ETP	Nr. DPG Plant	Nr. Fire pun p hou
■08-Dec	52	58	64	68	72	68	62	73	71	62	69	72	70	64	66
■ 23-Jan	54	56	60	64	70	66	59	74	73	66	71	70	72	66	68
■ 03-Feb	50	52	58	60	72	64	56	72	70	64	70	72	71	68	66
■ 06-Mar	52	54	55	58	73	62	54	74	72	62	66	70	72	64	64
■14-Apr	55	57	52	60	74	65	55	73	70	64	66	68	69	65	62
■ 28-May	55	57	52	60	74	65	55	73	70	64	66	68	69	65	62

## 2. Comparative Analysis & Graphical Presentation of Noise Level (Night Time)





ISO :9001 : 2015 ISO :14001 : 2015 OH&S: 45001 : 2018

NAME & ADDRESS OF CUSTOMER:

AA /- Hindusthan Chamicals Company

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**CERTIFICATE NO:** 

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#### TEST REPORT/CERTIFICATE

Tal.: O	lpad, Dist.: Surat-394540			ISSUE DATE:			12/2020	
SAMP	LE DESCRIPTION:	AMBIENT NOI	SE LEVEL	SAMPLING D	ATE:	08/12/2020		
SAMP	SAMPLE COLLECTED BY: Earth Care E Solutions Pvi			PROTOCOL(P	URPOSE):	Monthly Monitori		
AND DESCRIPTION OF THE SECOND			RESULT TABL					
SR.	Inc	ATION	UNIT		IBLE LIMIT		SULTS	
NO:		Allor		DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
01	Nr. Main Gate		dB	75	70	52	48	
02	Nr. ADM Building		dB	75	70	58	51	
03	Nr. Canteen		dB	75	70	64	58	
04	Nr. Bring Chilling Center		dB	75	70	68	62	
05	Nr. DG room		dB	75	70	72	67	
06	Nr. HCN Control Room		dB	75	70	68	64	
07	Nr. R & D Lab Area		dB	75	70	62	57	
08	Nr. Boiler Area	Call descriptions of the second secon	dB	75	70	73	69	
09	Nr. NaCN Plant		dB	75	70	71	66	
10	Nr. Engineering Store		dB	75	70	62	56	
11	Nr. SFCN Plant		dB	75	70	69	65	
12	Nr. Maintenance Work Shop		dB	75	70	72	66	
13	Nr. ETP		dB	75	70	70	64	
14	Nr. DPG Plant		dB	75	70	64	59	
15	Nr. Fire Pump House		dB	75	70	66	61	

Note: Day time: Between 6:00 am to 10:00 pm & Night time: Between 10:00 pm to 6:00 am

Distance From the Source: 5.0 meter in Wind Direction.

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	51/18
		ISSUE DATE:	03/02/2021
SAMPLE DESCRIPTION:	AMBIENT NOISE LEVEL	SAMPLING DATE:	23/01/2021
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	PROTOCOL(PURPOSE):	Monthly Monitoring

**RESULT TABLE: PERMISSIBLE LIMIT RESULTS** SR. UNIT LOCATION NO: DAY TIME **NIGHT TIME** DAY TIME **NIGHT TIME** Nr. Main Gate dB 75 70 54 49 01 Nr. ADM Building dB 75 70 56 51 02 75 70 Nr. Canteen dB 60 61 03 Nr. Bring Chilling Center dB 75 70 64 59 04 Nr. DG room dB 75 70 70 66 05 Nr. HCN Control Room 75 70 dB 66 62 06 Nr. R & D Lab Area 75 dB 70 59 53 07 dB 75 70 74 69 Nr. Boiler Area 08 Nr. NaCN Plant dB 75 70 **73** 68 09 **Nr. Engineering Store** dB 75 70 66 61 10 **Nr. SFCN Plant** 75 dB 70 71 67 11 Nr. Maintenance Work Shop 70 12 dB 75 70 64 75 70 72 Nr. ETP dB 66 13 Nr. DPG Plant dB 75 70 66 62 14 Nr. Fire Pump House dB 75 70 68 64 15

Note: Day time: Between 6:00 am to 10:00 pm & Night time: Between 10:00 pm to 6:00 am Distance From the Source: 5.0 meter in Wind Direction.

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

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OH&S: 45001: 2018

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#### **TEST REPORT/CERTIFICATE**

NAME & ADDRESS OF CUSTON M/s. Hindusthan Chemicals Co	mpany	CERTIFICATE NO:	87/18
GIDC Industrial Estate, P.O. Olp Tal.: Olpad, Dist.: Surat-394540	•	ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	AMBIENT NOISE LEVEL	SAMPLING DATE:	03/02/2021
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	PROTOCOL(PURPOSE):	Monthly Monitoring

**RESULT TABLE:** SR. **PERMISSIBLE LIMIT** RESULTS UNIT LOCATION NO: **DAY TIME NIGHT TIME** DAY TIME **NIGHT TIME** Nr. Main Gate 01 dB 75 70 50 46 Nr. ADM Building 75 02 dB 70 52 47 Nr. Canteen dB 75 70 03 58 **55** Nr. Bring Chilling Center dB 75 56 04 70 60 Nr. DG room dB 75 70 05 72 68 Nr. HCN Control Room 75 06 dB 70 64 62 Nr. R & D Lab Area dB 75 70 56 07 51 Nr. Boiler Area 75 dB 70 72 08 68 Nr. NaCN Plant dB 75 70 09 70 66 Nr. Engineering Store 75 dB 70 10 64 62 Nr. SFCN Plant 75 dB 70 70 68 Nr. Maintenance Work Shop 12 dB 75 70 **72** 69 Nr. ETP dB 75 13 70 71 68 Nr. DPG Plant dB 75 70 14 68 64 Nr. Fire Pump House 75 70 dB 66 62

Note: Day time: Between 6:00 am to 10:00 pm & Night time: Between 10:00 pm to 6:00 am

Distance From the Source: 5.0 meter in Wind Direction.

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

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PREPARED BY: (TECHNICAL MANAGER)



ISO 19001 2015 ISO 14081 2015 OH&S 45001 2018

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#### TEST REPORT/CERTIFICATE

	DDRESS OF CUSTOMER: usthan Chemicals Company		CERTIFICATE	NO:	136/18		
	trial Estate, P.O. Olpad, , Dist.: Surat-394540			ISSUE DATE:		30/	03/2021
SAMPLE DE	SCRIPTION:	AMBIENT NOISE LEV	EL	SAMPLING D	ATE:	06/	03/2021
SAMPLE CO	AMPLE COLLECTED BY: Earth Care Enviro Solutions Pvt. Ltd.		·	PROTOCOL(F	PURPOSE):	Monthl	y Monitoring
LEDANIE.		RESUL	T TABL	<u>E:</u>			
SR.	SR.		HAUT	PERMISS	SIBLE LIMIT	RES	ULTS
NO:	LOCATION	·	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME

SR.	10007001	114117	PERMISS	SIBLE LIMIT	RESULTS	
NO:	LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME
01	Nr. Main Gate	dB	75	70	52	48
02	Nr. ADM Building	dB	75	70	54	49
03	Nr. Canteen	dB	75	70	55	51
04	Nr. Bring Chilling Center	dB	75	70	58	53
05	Nr. DG room	dB	75	70	73	68
06	Nr. HCN Control Room	dB	75	70	62	57
07	Nr. R & D Lab Area	dB	75	70	54	47
08	Nr. Boiler Area	dB	75	70	74	69
09	Nr. NaCN Plant	dB	75	70	72	67
10	Nr. Engineering Store	dB	75	70	62	58
11	Nr. SFCN Plant	dB	75	70	66	62
12	Nr. Maintenance Work Shop	dB	<b>7</b> 5	70	70	66
13	Nr. ETP	dB	75	70	72	67
14	Nr. DPG Plant	dB	75	70	64	59
15	Nr. Fire Pump House	dB	75	70	64	58

Note: Day time: Between 6:00 am to 10:00 pm & Night time: Between 10:00 pm to 6:00 am Distance From the Source: 5.0 meter in Wind Direction.

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

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ISO 9001 : 2015 ISO :14001 : 2015 OH&S 45001 : 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTON M/s. Hindusthan Chemicals Co		CERTIFICATE NO:	175/18
GIDC Industrial Estate, P.O. Olp Tal.: Olpad, Dist.: Surat-394540	•	ISSUE DATE:	26/04/2021
SAMPLE DESCRIPTION:	AMBIENT NOISE LEVEL	SAMPLING DATE:	14/04/2021
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	PROTOCOL(PURPOSE):	Monthly Monitoring

**RESULT TABLE: PERMISSIBLE LIMIT RESULTS** SR. LOCATION UNIT NO: DAY TIME **NIGHT TIME** DAY TIME **NIGHT TIME** Nr. Main Gate dB 75 70 55 51 01 Nr. ADM Building dB 75 70 57 53 02 75 70 Nr. Canteen dB 52 48 03 75 Nr. Bring Chilling Center dB 70 60 57 04 75 70 dB 74 70 05 Nr. DG room Nr. HCN Control Room dΒ 75 70 65 62 06 55 Nr. R & D Lab Area dB 75 70 07 50 75 70 73 Nr. Boiler Area dB 68 08 Nr. NaCN Plant dB 75 70 70 66 09 **Nr. Engineering Store** dB 75 70 64 59 Nr. SFCN Plant dB 75 70 66 62 11 Nr. Maintenance Work Shop dB 75 70 68 64 12 75 70 Nr. ETP dB 69 65 13 Nr. DPG Plant 75 dB 70 65 61 14

dB

75

70

Note: Day time: Between 6:00 am to 10:00 pm & Night time: Between 10:00 pm to 6:00 am Distance From the Source: 5.0 meter in Wind Direction.

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

Nr. Fire Pump House

AUTHORISED SIGNATORY: (SURESH MORADIA) PREPARED BY:

62

62

(TECHNICAL MANAGER)



OH&S: 45001 2018

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NAME & ADDRESS OF CUSTOMER: M/s. HINDUSTHAN CHEMICALS COMPANY GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	240/14 07/06/2021	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	AMBIENT NOISE LEVEL	SAMPLING DATE:	28/05/2021	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	PROTOCOL(PURPOSE):	Monthly Monitoring	

RESULT TABLE:							
SR.	LOCATION	UNIT	PERMISS	IBLE LIMIT	RESULTS		
NO:	LOCATION	ECEATION		NIGHT TIME	DAY TIME	NIGHT TIME	
01	Nr. Main Gate	dB	75	70	55	51	
02	Nr. ADM Building	dB	75	70	57	53	
03	Nr. Canteen	dB	75	70	52	48	
04	Nr. Bring Chilling Center	dB	75	70	60	57	
05	Nr. DG room	dB	75	70	74	70	
06	Nr. HCN Control Room	dB	75	70	65	62	
07	Nr. R & D Lab Area	dB	75	70	55	50	
08	Nr. Boller Area	dB	75	70	73	68	
09	Nr. NaCN Plant	dB∶	75	70	70	66	
10	Nr. Engineering Store	dB	75	70	64	59	
11	Nr. SFCN Plant	dB	75	70	66	62	
12	Nr. Maintenance Work Shop	dB	75	70	68	64	
13	Nr. ETP	dB	75	70	69	65	
14	Nr. DPG Plant	dB	75	70	65	61	
15	Nr. Fire Pump House	dB	75	70	62	62	

Note: Day time: Between 6:00 am to 10:00 pm & Night time: Between 10:00 pm to 6:00 am Distance From the Source: 5.0 meter in Wind Direction.

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)

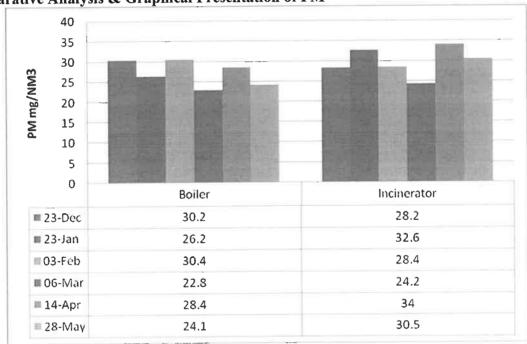
### Annexure 12

Stack Monitoring & Analysis Methodology, Analysis Report & Month Wise Comparison

Sr.	Particulars	Method
1.	Sampling Procedure	Sampling & analysis was carried out as per the instruction manual and IS: 11255. PM sample was collected as per IS: 11255 Part I and SO2 sample as per IS 11255 Part II, NOx sampling was carried out as per method given by EPA (PDA Method)
2.	Analysis Methodology	
i)	PM	IS: 11255(Part 1): 1985 Reff. 2014
ii)	SO <sub>2</sub>	IS: 11255(Part 2): 1985 Reff. 2014
iii)	NOx	IS: 11255(Part 7): 2005 Reff. 2017

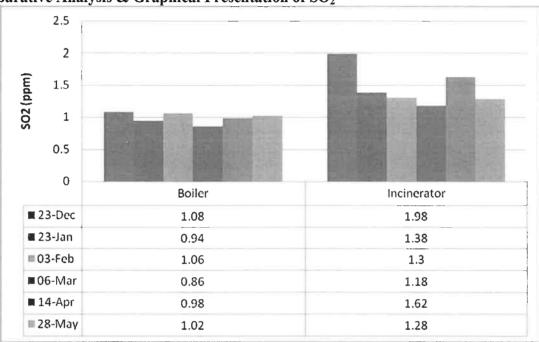
## Monthly Variation in Stack Emission for the period of December 2020 to May 2021

1. Comparative Analysis & Graphical Presentation of PM



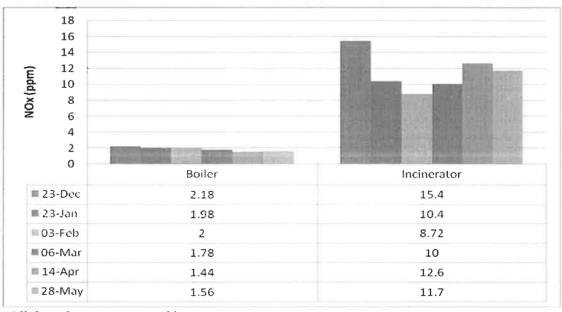
Note: All the values are expressed in mg/Nm3.

2. Comparative Analysis & Graphical Presentation of SO<sub>2</sub>



Note: All the values are expressed in ppm.

### 3. Comparative Analysis & Graphical Presentation of NOx



Note: All the values are expressed in ppm.



ISO -9001 : 2015 ISO :14001 : 2015 OH&S: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	505/9 26/12/2020	
		ISSUE DATE:		
	Stack Attached to Boiler	LAB ID:	80/12	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM	
SAMPLING DATE:	23/12/2020	SAMPLING TIME:	10:35 am To 11:45 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL20122306	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	24/12/2020	SAMPLE RECEIVED TIME:	10:17 am	
TEST START DATE:	24/12/2020	TEST COMPLETION DATE:	26/12/2020	

SR. No.	STACK/VENT DESCRIPTION				
	AIR POLLUTION CONTROL SYSTEM:	Cyclone Separator			
01		33 °C			
02	AMBIENT TEMPRATURE:	31 meter			
03	STACK HEIGHT:	0.7 meter			
04	STACK DIAMETER:	10000			
05	FUEL USED:	Natural Gas			

### **RESULT TABLE:**

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	Particulate Matter	mg/Nm <sup>3</sup>	150	30.2	IS: 11255(Part 1): 1985 Reff. 2019
01	Contradiction Co	ppm	100	1.08	IS: 11255(Part 2): 1985 Reff. 2019
02	Sulphur Dioxide		50	2.18	IS: 11255(Part 7): 2005 Reff. 2017
03	Oxides Of Nitrogen	ppm		122	By Thermocouple
04	Temperature			7.17	IS: 11255(Part 3): 2008
05	Velocity	m/s		7.17	13. 11235(Falt 3). 2000

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

Frozeidia

**AUTHORISED SIGNATORY:** (SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



ISO :9001 : 2015 ISO :14001 : 2015 OH&S: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	505/10 26/12/2020	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	Stack Attached to Incinerator	LAB ID:	81/12	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM	
SAMPLING DATE:	23/12/2020	SAMPLING TIME:	01:40 pm To 02:46 pm	
The state of the s	Monthly Monitoring	SAMPLE ID NO:	EESPL20122307	
PROTOCOL(PURPOSE):	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLING METHOD:	24/12/2020	SAMPLE RECEIVED TIME:	10:17 am	
SAMPLE RECEIVED DATE: TEST START DATE:	24/12/2020	TEST COMPLETION DATE:	26/12/2020	

SR. No.	STACK/VENT DESCRIPTION		
01	AIR POLLUTION CONTROL SYSTEM:	uan U	
02	AMBIENT TEMPRATURE:	33 °C	
03	STACK HEIGHT:	40 meter 1.0 meter	
04	STACK DIAMETER:	1.0 meter	
05	FUEL USED:		

#### **RESULT TABLE:**

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
04	Particulate Matter	mg/Nm <sup>3</sup>	150	28.2	IS: 11255(Part 1): 1985 Reff. 2019
01	The second secon	ppm	100	1.98	IS: 11255(Part 2): 1985 Reff. 2019
02	Sulphur Dioxide	ppm	50	15.4	IS: 11255(Part 7): 2005 Reff. 2017
03	Oxides Of Nitrogen			BDL	EPA method
04	HCL	mg/Nm <sup>3</sup>	20		1
05	HCN	mg/Nm	30	BDL	Chromatographic method
-	HC	mg/Nm <sup>3</sup>	-	BDL	IS: 5182(Part 17):1979
06	The state of the s	°c	-	130	By Thermocouple
07	Temperature			-	IS: 11255(Part 3): 2008
08	Velocity	m/s		7.1	13. 11235(Fait 3). 2000

NOTE: BDL: Below Detection Limits

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



ISO :9001 : 2015 ISO :14001 : 2015 OH&S :45001 : 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	51/9
		ISSUE DATE:	03/02/2021
SAMPLE DESCRIPTION:	Stack Attached to Boiler	LAB ID:	70/1
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	11:05 am To 12:21 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21012306
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	29/01/2021

SR. No.	io. STACK/VENT DESCRIPTION		
01	AIR POLLUTION CONTROL SYSTEM:	Cyclone Separator	
02	AMBIENT TEMPRATURE:	30 °C	
03	STACK HEIGHT:	31 meter	
04	STACK DIAMETER:	0.7 meter	
05	FUEL USED:	Natural Gas	

#### **RESULT TABLE:**

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	Particulate Matter	mg/Nm <sup>3</sup>	150	26.2	IS: 11255(Part 1): 1985 Reff. 2019
02	Sulphur Dioxide	ppm	100	0.94	IS: 11255(Part 2): 1985 Reff. 2019
03	Oxides Of Nitrogen	ppm	50	1.98	IS: 11255(Part 7): 2005 Reff. 2017
04	Temperature	°C	-	114	By Thermocouple
05	Velocity	m/s	-	6.52	IS: 11255(Part 3): 2008

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AUTHORISED SIGNATORY:

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ISO 14081 2015 GH&S: 45001: 2018

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#### **TEST REPORT/CERTIFICATE**

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	E1/10
		CERTIFICATE NO.	51/10
		ISSUE DATE:	03/02/2021
SAMPLE DESCRIPTION:	Stack Attached to Incinerator	LAB ID:	71/1
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	01:40 pm To 02:50 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21012307
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	01/02/2021

SR. No.	STACK/VENT D	ESCRIPTION
01	AIR POLLUTION CONTROL SYSTEM:	•
02	AMBIENT TEMPRATURE:	30 °C
03	STACK HEIGHT:	40 meter
04	STACK DIAMETER:	1.0 meter
05	FUEL USED:	

<b>RESUL</b>	T TABLE:

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	Particulate Matter	mg/Nm <sup>3</sup>	150	32.6	IS: 11255(Part 1): 1985 Reff. 2019
02	Sulphur Dioxide	ppm	100	1.38	IS: 11255(Part 2): 1985 Reff. 2019
03	Oxides Of Nitrogen	ppm	50	10.4	IS: 11255(Part 7): 2005 Reff. 2017
04	HCL	mg/Nm <sup>3</sup>	20	BDL	EPA method
05	HCN	mg/Nm <sup>3</sup>	30	BDL	Chromatographic method
06	НС	mg/Nm <sup>3</sup>	-	BDL	IS: 5182(Part 17):1979
07	Temperature	°C	-	126	By Thermocouple
08	Velocity	m/s	-	7.30	IS: 11255(Part 3): 2008

NOTE: BDL: Below Detection Limits

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)



ISO :9001 : 2015 180 :14001 : 2015 OH&S: 45001: 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	87/9
		ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	Stack Attached to Boiler	LAB ID:	17/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	10:00 am To 12:22 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21020306
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	08/02/2021

SR. No.	o. STACK/VENT DESCRIPTION		
01	AIR POLLUTION CONTROL SYSTEM:	Cyclone Separator	
02	AMBIENT TEMPRATURE:	34 °C	
03	STACK HEIGHT:	31 meter	
04	STACK DIAMETER:	0.7 meter	
05	FUEL USED:	Natural Gas	

#### **RESULT TABLE:**

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	Particulate Matter	mg/Nm <sup>3</sup>	150	30.4	IS: 11255(Part 1): 1985 Reff. 2019
02	Sulphur Dioxide	ppm	100	1.06	IS: 11255(Part 2): 1985 Reff. 2019
03	Oxides Of Nitrogen	ppm	50	2.0	IS: 11255(Part 7): 2005 Reff. 2017
04	Temperature	°C	_	118	By Thermocouple
05	Velocity	m/s	-	6.774	IS: 11255(Part 3): 2008

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	87/10 24/02/2021
		ISSUE DATE:	
SAMPLE DESCRIPTION:	Stack Attached to Incinerator	LAB ID:	18/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	01:00 pm To 01:50 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21020307
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	08/02/2021

SR. No.	No. STACK/VENT DESCRIPTION		
01	AIR POLLUTION CONTROL SYSTEM:		
	AMBIENT TEMPRATURE:	30 °C	
	STACK HEIGHT:	40 meter	
03	STACK DIAMETER:	1.4 meter	
04		avm da	
05	FUEL USED:		

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DE	<u> </u>	<u> </u>		<u> </u>	<u></u>

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	Particulate Matter	mg/Nm <sup>3</sup>	150	28.4	IS: 11255(Part 1): 1985 Reff. 2019
02	Sulphur Dioxide	ppm	100	1.30	IS: 11255(Part 2): 1985 Reff. 2019
03	Oxides Of Nitrogen	ppm	50	8.72	IS: 11255(Part 7): 2005 Reff. 2017
	HCL	mg/Nm <sup>3</sup>	20	BDL	EPA method
04	HCN	mg/Nm <sup>3</sup>	30	BDL	Chromatographic method
05	HC	mg/Nm <sup>3</sup>		BDL	IS: 5182(Part 17):1979
06		°C	-	1.09	By Thermocouple
07 08	Temperature Velocity	m/s	-	6.84	IS: 11255(Part 3): 2008

NOTE: BDL: Below Detection Limits

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

Moradia

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	136/9
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	30/03/2021
SAMPLE DESCRIPTION:	Stack Attached to Boiler	LAB ID:	14/3
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	01:05 pm To 02:21 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21030607
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am
SAMPLE RECEIVED DATE: TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	12/03/2021

SR. No.	STACK/VENT	DESCRIPTION
	AIR POLLUTION CONTROL SYSTEM:	Cyclone Separator
		36 °C
02	AMBIENT TEMPERATURE:	31 meter
03	STACK HEIGHT:	0.7 meter
04	STACK DIAMETER:	
05	FUEL USED:	Natural Gas

**RESULT TABLE: PERMISSIBLE TEST METHOD RESULT** UNIT **PARAMETER** SR. No: LIMIT IS: 11255(Part 1): 1985 Reff. 2019 22.8 mg/Nm<sup>3</sup> 150 Particulate Matter 01 IS: 11255(Part 2): 1985 Reff. 2019 0.86 100 ppm **Sulphur Dioxide** 02 IS: 11255(Part 7): 2005 Reff. 2017 1.78 50 ppm °C **Oxides Of Nitrogen** 03 By Thermocouple 102 **Temperature** 04 IS: 11255(Part 3): 2008 6.682 m/s

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

Francia **AUTHORISED SIGNATORY:** 

Velocity

(SURESH MORADIA)

05

PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	136/10
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	30/03/2021
	Stack Attached to Incinerator	LAB ID:	77/3
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
	22/03/2021	SAMPLING TIME:	01:20 pm To 02:10 pm
SAMPLING DATE:	Monthly Monitoring	SAMPLE ID NO:	EESPL21032206
PROTOCOL(PURPOSE):	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLING METHOD:	23/03/2021	SAMPLE RECEIVED TIME:	10:34 am
SAMPLE RECEIVED DATE: TEST START DATE:	23/03/2021	TEST COMPLETION DATE:	26/03/2021

SR. No.	STACK/VENT DE	ESCRIPTION
	AIR POLLUTION CONTROL SYSTEM:	A CONTRACTOR OF THE PROPERTY O
	AIR POLLOTION CONTROL STATE	30 °C
	AMBIENT TEMPERATURE:	40 meter
03	STACK HEIGHT:	1.4 meter
04	STACK DIAMETER:	1.4 111661
05	FUEL USED:	

#### **RESULT TABLE:**

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
	n - Haylata Matter	mg/Nm <sup>3</sup>	150	24.2	IS: 11255(Part 1): 1985 Reff. 2019
01	Particulate Matter	ppm	100	1.18	IS: 11255(Part 2): 1985 Reff. 2019
02	Sulphur Dioxide	-	50	10.0	IS: 11255(Part 7): 2005 Reff. 2017
03	Oxides Of Nitrogen	ppm	The second second		EPA method
04	HCL	mg/Nm <sup>3</sup>	20	BDL	
		mg/Nm <sup>3</sup>	30	BDL	Chromatographic method
05	HCN	mg/Nm <sup>3</sup>	-	BDL	IS: 5182(Part 17):1979
06	НС	000		116	By Thermocouple
07	Temperature	<u>C</u>	-		IS: 11255(Part 3): 2008
08	Velocity	m/s	-	7.06	15. 11233(Fait 3). 2008

NOTE: BDL: Below Detection Limits

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/9
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	26/04/2021
The second secon	Stack Attached to Boiler	LAB ID:	63/4
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	01:15 pm To 02:30 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21041406
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
Control of the Contro	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am
SAMPLE RECEIVED DATE: TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	19/04/2021

SR. No.	STACK/VENT	DESCRIPTION
	AIR POLLUTION CONTROL SYSTEM:	Cyclone Separator
01		32 °C
02	AMBIENT TEMPERATURE:	31 meter
03	STACK HEIGHT:	0.7 meter
04	STACK DIAMETER:	The state of the s
05	FUEL USED:	Natural Gas

RESULT TABLE:

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
	Particulate Matter	mg/Nm <sup>3</sup>	150	28.4	IS: 11255(Part 1): 1985 Reff. 2019
01			100	0.98	IS: 11255(Part 2): 1985 Reff. 2019
02	Sulphur Dioxide	ppm		1.44	IS: 11255(Part 7): 2005 Reff. 2017
03	Oxides Of Nitrogen	ppm	50		
	Temperature	°C	-	118	By Thermocouple
04 05	Velocity	m/s		6.77	IS: 11255(Part 3): 2008

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:
(TECHNICAL MANAGER)



ISO :9001 : 2015 ISO :14001 : 2015 OH&S : 45001 : 2018

# EARTH CARE ENVIROSOLUTIONS PVI. LID.



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	175/10
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	26/04/2021
SAMPLE DESCRIPTION:	Stack Attached to Incinerator	LAB ID:	64/4
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	01:35 pm To 02:25 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21041407
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
The second secon	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am
SAMPLE RECEIVED DATE: TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	21/04/2021

SR. No.	No. STACK/VENT DESCRIPTION		
	AIR POLLUTION CONTROL SYSTEM:	-	
02	AMBIENT TEMPERATURE:	32 °C	
03	STACK HEIGHT:	40 meter	
04	STACK DIAMETER:	1.4 meter	
05	FUEL USED:		

### RESULT TABLE:

SR. No:	PARAMETER	UNIT	UNIT PERMISSIBLE LIMIT		TEST METHOD		
01	Particulate Matter	mg/Nm <sup>3</sup>	150	34.0	IS: 11255(Part 1): 1985 Reff. 201		
	Sulphur Dioxide	ppm	100	1.62	IS: 11255(Part 2): 1985 Reff. 201		
02	Oxides Of Nitrogen	ppm	50	12.6	IS: 11255(Part 7): 2005 Reff. 2017		
03		mg/Nm <sup>3</sup>	20	BDL	EPA method		
04	HCL	mg/Nm <sup>3</sup>	30	BDL	Chromatographic method		
05	HCN	mg/Nm <sup>3</sup>	_	BDL	IS: 5182(Part 17):1979		
06	HC	, C	_	109	By Thermocouple		
07	Temperature		_	6.84	IS: 11255(Part 3): 2008		
08	Velocity	m/s		0.04	10. 22.		

NOTE: BDL: Below Detection Limits

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

JITHORISED SIGNATOR

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUS M/s. HINDUSTHAN CHEMI		CERTIFICATE NO:	240/5	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:	07/06/2021	
SAMPLE DESCRIPTION:	Stack Attached to Boiler	LAB ID:	117/5	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM	
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	01:15 pm To 02:30 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052810	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am	
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	03/06/2021	

SR. No.	AIR POLLUTION CONTROL SYSTEM: C AMBIENT TEMPERATURE: STACK HEIGHT:	DESCRIPTION
01	AIR POLLUTION CONTROL SYSTEM:	Cyclone Separator
02	AMBIENT TEMPERATURE:	33 °C
03	STACK HEIGHT:	31 meter
04	STACK DIAMETER:	0.7 meter
05	FUEL USED:	Natural Gas

#### **RESULT TABLE:**

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	Particulate Matter	mg/Nm <sup>3</sup>	150	24.1	IS: 11255(Part 1): 1985 Reff. 2019
02	Sulphur Dioxide	Ppm	100	1.02	IS: 11255(Part 2): 1985 Reff. 2019
03	Oxides Of Nitrogen	Ppm	50	1.56	IS: 11255(Part 7): 2005 Reff. 2017
04	Temperature	°C		112	By Thermocouple
05	Velocity	m/s	<u>-</u>	6.698	IS: 11255(Part 3): 2008

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

- Thorodia

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUS M/s. HINDUSTHAN CHEM		CERTIFICATE NO:	240/6
GIDC Industrial Estate, P.O Tal.: Olpad, Dist.: Surat-39		ISSUE DATE:	07/06/2021
SAMPLE DESCRIPTION:	Stack Attached to Incinerator	LAB ID:	118/5
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Absorbing Media for each Gas & Thimble for PM
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	01:35 pm To 02:25 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052811
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	03/06/2021

SR. No.	STACK/VENT D	ESCRIPTION
01	AIR POLLUTION CONTROL SYSTEM:	The second secon
02	AMBIENT TEMPERATURE:	33 °C
03	STACK HEIGHT:	40 meter
04	STACK DIAMETER:	1.4 meter
05	FUEL USED:	· · · · · · · · · · · · · · · · · · ·

#### **RESULT TABLE:**

SR. No:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	Particulate Matter	mg/Nm <sup>3</sup>	150	30.5	IS: 11255(Part 1): 1985 Reff. 2019
02	Sulphur Dioxide	Ppm	100	1.28	IS: 11255(Part 2): 1985 Reff. 2019
03	Oxides Of Nitrogen	Ppm	50	11.7	IS: 11255(Part 7): 2005 Reff. 2017
04	HCL	mg/Nm <sup>3</sup>	20	BDL	EPA method
05	HCN	mg/Nm	30	BDL	Chromatographic method
06	НС	mg/Nm³	-	BDL	IS: 5182(Part 17):1979
07	Temperature	°C	·-	104	By Thermocouple
08	Velocity	m/s	-	6.95	IS: 11255(Part 3): 2008

**NOTE: BDL: Below Detection Limits** 

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)

### Water Sampling & Analysis Method, Analysis Report & Month Wise Comparison

S. No.	Particulars	Test method
1.	pH	IS: 3025 (Part 11)-1983 Reff. 2017
2.	Temperature	IS: 3025 (Part 9) 1984 Re. 2017
3.	Turbidity	IS:3025 (Part 10) 1984 Reff. 2017
4.	Total Dissolved Solids	IS 3025 (Part 16)-1984 Reff. 2017
5.	DO	IS: 3025 (Part 38)-1989 Reff.2014
6.	BOD	IS: 3025 (Part 44)-1993 Reff.2014
7.	Nitrate	APHA23rd ed.2017,4500 NO3.B
8.	Total Phosphate	IS: 3025 (Part 31) 1988 Reff. 2003
9.	Chloride	IS 3025 (Part 32)-1988 Reff. 2014
10.	Sulphate	APHA 23 <sup>rd</sup> ed. 2017, 4500-SO42-C
11.	Total Hardness	IS:3025 (Part 21): 2014
12.	Calcium	IS: 3025 (Part 40):1991 Reff. 2014
13.	Magnesium	APHA 23rd ed.2017,3500-Mg B.
14.	Cyanides	IS:3025 (Part 27):1986 Reff.1998
15.	Chromium	IS: 3025 (Part 52):2003 Reff. 2014
16.	Copper	IS: 3025 (Part 42):1992 Reff. 2014
17.	Iron	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18.	Zinc	IS:3025 (Part 49) :1994 Reff.2014
19.	Lead	IS 3025(Part 47):1994 Reff. 2014

### Monthly Comparison of Water sample of Ganesh Automobiles Borewell

S.no.	Parameters	Unit	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21
01	рН	pH Unit	7.42	7.26	7.34	7.12	7.28	7.27
02	Temperature	°C	30	32	33	34	36	30
03	Turbidity	NTU	1.4	1.0	1.4	0.56	0.66	1.2
04	Total Dissolved Solids	mg/L	236	216	242	208	292	232
05	DO	mg/L	5.4	4.8	5.2	4.2	5.8	4.9
06	BOD	mg/L	<4	<4	<4	<4	<4	<4
07	Nitrate	mg/L	2.4	1.8	2.0	1.2	2.0	1.9
08	Total Phosphate	mg/L	0.36	0.30	0.36	0.15	0.20	0.34
09	Chloride	mg/L	124	104	116	102	130	112
10	Sulphate	mg/L	26	20.6	22.8	20.2	28.4	21.8
11	Total Hardness	mg/L	106.2	96	104	92	112	99
12	Calcium	mg/L	58.6	44.2	54.6	42.0	56.2	40.3
13	Magnesium	mg/L	47.6	51.8	49.4	50	55.8	50.2
14	Cyanides	mg/L	NIL	NIL	NIL	NIL	NIL	NIL
15	Chromium	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
16	Copper	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Iron	mg/L	0.032	0.026	0.034	0.022	0.030	0.031
18	Zinc	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
19	Lead	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20	Total Alkalinity	mg/L	132	122	136	110	132	131
21	Silica	mg/L	6.04	5.76	6.28	4.32	6.26	5.3
22	Total Coli form	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent

### Monthly Comparison of Water sample of Nemlaxmi Books Borewell

S. no.	Parameters	Unit	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21
01	pH	pH Unit	7.64	7.48	7.54	7.24	7.36	7.08
02	Temperature	°C	29	30	32	33	34	33
03	Turbidity	NTU	1.0	0.96	0.98	0.42	0.52	0.87
04	Total Dissolved Solids	mg/L	148	128	138	114	164	131
05	DO	mg/L	5.0	4.2	4.6	3.8	4.0	4.3
06	BOD	mg/L	<4	<4	<4	<4	<4	<4
07	Nitrate	mg/L	1.8	1.2	1.4	0.8	1.6	1.3
08	Total Phosphate	mg/L	0.32	0.26	0.30	0.13	0.26	0.28
09	Chloride	mg/L	86	74	82	72	94	80
10	Sulphate	mg/L	22.8	16.2	20.4	14.0	20.0	18.2
11	Total Hardness	mg/L	86	72	82	68	92	76
12	Calcium	mg/L	60.8	56.4	60.2	52.2	60.6	59.3
13	Magnesium	mg/L	25.2	15.6	21.8	15.8	31.4	18.1
14	Cyanides	mg/L	NIL	NIL	NIL	NIL	NIL	NIL
15	Chromium	mg/L	< 0.03	<0.03	< 0.03	<0.03	< 0.03	<0.03
16	Copper	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Iron	mg/L	0.034	0.030	0.032	0.020	0.026	0.034
18	Zinc	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
19	Lead	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20	Total Alkalinity	mg/L	140	134	144	122	154	139
21	Silica	mg/L	7.34	6.92	7.22	5.40	8.60	6.81
22	Total Coli form	/100 ml	Absent	Absent	Absent	Absent	Absent	Absen

## Monthly Comparison of Water sample of Surat Drums Factory Borewell

S.	Parameters	Unit	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21
no.								
01	pH	pH Unit	7.44	7.06	7.32	7.03	7.12	7.12
02	Temperature	°C	30	31	30	34	38	32
03	Turbidity	NTU	0.8	1.4	1.2	0.70	0.74	1.3
04	Total Dissolved Solids	mg/L	50	42	38	32	52	39
05	DO	mg/L	5.8	5.6	4.2	5.2	4.8	5.2
06	BOD	mg/L	<4	<4	<4	<4	<4	<4
07	Nitrate	mg/L	1.6	0.9	0.7	0.4	1.0	0.8
08	Total Phosphate	mg/L	0.22	0.22	0.20	0.11	0.18	0.021
09	Chloride	mg/L	18.4	18.2	16.4	14.0	20.2	17.5
10	Sulphate	mg/L	7.4	6.8	6.2	4.2	8.0	6.4
11	Total Hardness	mg/L	16.4	18	16	12	34	27
12	Calcium	mg/L	10.2	10.8	8.02	6.82	10.2	19.4
13	Magnesium	mg/L	6.2	5.2	7.98	5.18	23.8	6.94
14	Cyanides	mg/L	NIL	NIL	NIL	NIL	NIL	NIL
15	Chromium	mg/L	< 0.03	<0.03	< 0.03	<0.03	<0.03	<0.03
16	Copper	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Iron	mg/L	0.022	0.042	0.040	0.036	0.044	0.047
18	Zinc	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
19	Lead	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20	Total Alkalinity	mg/L	128	156	150	132	98	153
21	Silica	mg/L	6.84	6.84	6.20	4.42	6.02	6.53
22	Total Coli form	/100 ml	Absent	Absent	Absent	Absent	Absent	Absen

### Monthly Comparison of Water sample of Masma Village Borewell

S.no.	Parameters	Unit	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21
01	pН	pH Unit	7.28	7.34	7.16	7.02	7.30	7.35
02	Temperature	°C	31	32	31	32	33	34
03	Turbidity	NTU	1.2	0.92	0.86	0.40	0.58	0.90
04	Total Dissolved Solids	mg/L	58	34	32	28	44	33
05	DO	mg/L	6.2	5.0	4.6	4.6	4.2	4.8
06	BOD	mg/L	<4	<4	<4	<4	<4	<4
07	Nitrate	mg/L	1.0	1.0	0.8	0.5	1.2	0.9
08	Total Phosphate	- mg/L	0.26	0.18	0.16	0.09	0.14	0.17
09	Chloride	mg/L	20	16.8	14.8	12.4	18.6	15.4
10	Sulphate	mg/L	8.2	6.0	4.2	4.0	6.8	5.3
11	Total Hardness	mg/L	20.6	14	12	10	26	13
12	Calcium	mg/L	12.4	8.9	8.12	6.40	8.2	8.11
13	Magnesium	mg/L	8.2	5.1	3.88	3.60	17.8	4.43
14	Cyanides	mg/L	NIL	NIL	NIL	NIL	NIL	NIL
15	Chromium	mg/L	< 0.03	<0.03	< 0.03	< 0.03	<0.03	<0.03
16	Copper	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Iron	mg/L	0.058	0.014	0.010	0.016	0.022	0.012
18	Zinc	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
19	Lead	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20	Total Alkalinity	mg/L	168	118	108	108	140	115
21	Silica	mg/L	7.02	5.96	5.24	3.40	4.52	6.01
22	Total Coli form	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent



ISO :9001 : 2015 ISO :14001 : 2015 OH&S: 45001: 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTO		CERTIFICATE NO:	505/13	
M/s. Hindusthan Chemicals GIDC Industrial Estate, P.O. 0		Account of the same of the sam	26/12/2020	
Tal.: Olpad, Dist.: Surat-3945		ISSUE DATE:	26/12/2020	
SAMPLE DESCRIPTION:	Bore well Sample		44/12	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	08/12/2020	SAMPLING TIME:	01:40 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL20120808	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	09/12/2020	SAMPLE RECEIVED TIME:	10:15 am	
TEST START DATE: 09/12/2020		TEST COMPLETION DATE:	17/12/2020	

RESU	JLT TA	BLE:

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	На	pH Unit	6.5 to 8.5	7.42	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°С	-	30	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	1.4	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	236	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L	-	5.4	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L	-	<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	2.4	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L	-	0.36	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	124	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	26	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	106.2	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	58.6	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	47.6	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.032	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	132	IS: 3025 (Part23): 1986 Reff. 2019
	Silica	mg/L		6.04	IS: 3025 (Part 35): 1988 Reff.2019
21 22	Total Coli form	/100 mi	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

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### TEST REPORT/CERTIFICATE

			505/14	
NAME & ADDRESS OF CUSTO	MER:	CERTIFICATE NO:	303/14	
M/s. Hindusthan Chemicals ( GIDC Industrial Estate, P.O. O	lpad,	ISSUE DATE:	26/12/2020  45/12  2 Liter in Plastic carboy & 100 ml in Sterile bottle	
Tal.: Olpad, Dist.: Surat-3945 SAMPLE DESCRIPTION:	Bore well Sample Nemlaxmi Books	LAB ID:		
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:		
	08/12/2020	SAMPLING TIME:	02:23 pm	
SAMPLING DATE:	Monthly Monitoring	SAMPLE ID NO:	EESPL20120809	
PROTOCOL(PURPOSE):	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLING METHOD:	09/12/2020	SAMPLE RECEIVED TIME:	10:15 am	
SAMPLE RECEIVED DATE: TEST START DATE:	PLE RECLIVED DATE:		17/12/2020	

			RESULT TABLE		
SR.	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
NO:		pH Unit	6.5 to 8.5	7.64	IS:3025 (Part 11): 1983 Reff.2017
01	pH	PH OIIIC	-	29	IS: 3025 (Part 9): 1984 Reff:2017
02	Temperature		5.0	1.0	IS:3025 (Part 10): 1984 Reff.2017
03	Turbidity	NTU	500	148	IS:3025 (Part 16): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	300	5.0	IS 3025 (Part 38): 1989 Reff.2019
05	DO	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
06	BOD	mg/L		1.8	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
07	Nitrate	mg/L	45	0.32	IS: 3025 (Part 31): 1988 Reff.2019
08	Total Phosphate	mg/L			IS:3025 (Part 32): 1988 Reff 2019
09	Chloride	mg/L	250	86	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
10	Sulphate	mg/L	200	22.8	IS: 3025 (Part 21): 2009 Reff.2019
11	Total Hardness	mg/L	300	86	IS: 3025 (Part 40): 1991 Reff.2019
	Calcium	mg/L	75	60.8	15: 3025 (Part 40). 1991 Reff.2015
12	The second secon	mg/L	30	25.2	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
13	Magnesium	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
14	Cyanides	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 201
15	Chromium	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
16	Copper		0.3	0.034	APHA23 <sup>ro</sup> ed.2017,3500 Fe.B
17	Iron	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.201
18	Zinc	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
19	Lead	mg/L	200	140	IS: 3025 (Part23): 1986 Reff. 201
20	Total Alkalinity	mg/L	and a few for the contract of	7.34	IS: 3025 (Part 35): 1988 Reff.201
21	Silica	mg/L		Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D
22	Total Coli form	/100 ml	Absent	Ansent	

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTO	OMER:	CERTIFICATE NO:	26/12/2020	
M/s. Hindusthan Chemicals GIDC Industrial Estate, P.O. C Tal.: Olpad, Dist.: Surat-3945	lpad,	ISSUE DATE:		
SAMPLE DESCRIPTION:	Bore well Sample Surat Drums Factory	LAB ID:	46/12 2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:		
SAMPLING DATE:	DATE: 08/12/2020 SAMPLING TIME:	SAMPLING TIME:	02:50 pm	
PROTOCOL(PURPOSE):		SAMPLE ID NO:	EESPL20120810	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	09/12/2020	SAMPLE RECEIVED TIME:	10:15 am	
TEST START DATE:	09/12/2020	TEST COMPLETION DATE:	17/12/2020	

RESULT TABLE:

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	На	pH Unit	6.5 to 8.5	7.44	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		30	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.8	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	50	IS:3025 (Part 16): 1984 Reff.2017
	DO DO	mg/L		5.8	IS 3025 (Part 38): 1989 Reff.2019
05	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
06	Nitrate	mg/L	45	1.6	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
07		mg/L		0.22	IS: 3025 (Part 31): 1988 Reff.2019
08	Total Phosphate	mg/L	250	18.4	IS:3025 (Part 32): 1988 Reff 2019
09	Chloride	mg/L	200	7.4	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
10	Sulphate	mg/L	300	16.4	IS: 3025 (Part 21): 2009 Reff.2019
11	Total Hardness	mg/L	75	10.2	IS: 3025 (Part 40): 1991 Reff.2019
12	Calcium	mg/L	30	6.2	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
13	Magnesium	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
14	Cyanides	- Alexander	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 201
15	Chromium	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
16	Copper	mg/L	0.03	0.022	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
17	Iron	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
18	Zinc	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
19	Lead	mg/L	200	128	IS: 3025 (Part23): 1986 Reff. 2019
20	Total Alkalinity	mg/L		6.84	IS: 3025 (Part 35): 1988 Reff.201
21	Silica	mg/L	01	Absent	APHA 23 <sup>r°</sup> ed.2017,9221-D
22	Total Coli form	/100 ml	Absent	Absent	AFIIA 23 Cu.zuri, Jazz D

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTO	OMER:	CERTIFICATE NO:	505/16
M/s. Hindusthan Chemicals		CERTIFICATE NO.	505/20
GIDC Industrial Estate, P.O. C Tal.: Olpad, Dist.: Surat-3945	lipad,	ISSUE DATE:	26/12/2020
SAMPLE DESCRIPTION:  Bore well Sample Masma Village		LAB ID:	47/12
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle
SAMPLING DATE:	08/12/2020	SAMPLING TIME:	03:15 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL20120811
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	09/12/2020	SAMPLE RECEIVED TIME:	10:15 am
TEST START DATE:	09/12/2020	TEST COMPLETION DATE:	17/12/2020

RESULT TABLE:

RESULT TABLE:					
PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD	
На	pH Unit	6.5 to 8.5	7.28	IS:3025 (Part 11): 1983 Reff.2017	
Charles I was a second of a second of	°C		31	IS: 3025 (Part 9): 1984 Reff:2017	
	NTU	5.0	1.2	IS:3025 (Part 10): 1984 Reff.2017	
	mg/L	500	58	IS:3025 (Part 16): 1984 Reff.2017	
w ad-10, 10,000 110			6.2	IS 3025 (Part 38): 1989 Reff.2019	
	-		<4	IS: 3025 (Part 44): 1993 Reff.2019	
. 9 m/s - 1000		45	1.0	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B	
			0.26	IS: 3025 (Part 31): 1988 Reff.2019	
-2		250	20	IS:3025 (Part 32): 1988 Reff 2019	
anima and anima and anima and anima anima anima anima anima anima anima anima anima anima anima anima anima ani		200	8.2	APHA 23 <sup>ra</sup> ed. 2017,4500-SO42-C	
- Additional		300	20.6	IS: 3025 (Part 21): 2009 Reff.2019	
Name and Advantage and Advanta		75	12.4	IS: 3025 (Part 40): 1991 Reff.2019	
		30	8.2	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.	
	the same of the sa	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998	
	7	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019	
		0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019	
		0.3	0.058	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B	
	and believed at 12	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019	
		0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019	
		200	168	IS: 3025 (Part23): 1986 Reff. 2019	
The state of the s			7.02	IS: 3025 (Part 35): 1988 Reff.2019	
		Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D	
	PARAMETER  pH Temperature Turbidity Total Dissolved Solids DO BOD Nitrate Total Phosphate Chloride Sulphate Total Hardness Calcium Magnesium Cyanides Chromium Copper Iron Zinc Lead Total Alkalinity Silica Total Coli form	pH pH Unit Temperature °C Turbidity NTU Total Dissolved Solids mg/L DO mg/L BOD mg/L Nitrate mg/L Total Phosphate mg/L Sulphate mg/L Total Hardness mg/L Calcium mg/L Magnesium mg/L Cyanides mg/L Chromium mg/L Copper mg/L Iron mg/L Zinc mg/L Lead mg/L Total Alkalinity mg/L Silica mg/L	PARAMETER         UNIT         Desirable Limits (As per IS 10500)           pH         pH Unit         6.5 to 8.5           Temperature         °C            Turbidity         NTU         5.0           Total Dissolved Solids         mg/L         500           DO         mg/L            BOD         mg/L            Nitrate         mg/L         45           Total Phosphate         mg/L         250           Sulphate         mg/L         200           Sulphate         mg/L         300           Calcium         mg/L         30           Calcium         mg/L         30           Cyanides         mg/L         0.05           Chromium         mg/L         0.05           Chromium         mg/L         0.05           Iron         mg/L         0.05           Iron         mg/L         0.05           Lead         mg/L         0.05           Total Alkalinity         mg/L            Silica         mg/L	PARAMETER         UNIT         Desirable Limits (As per IS 10500)         RESULT           pH         pH Unit         6.5 to 8.5         7.28           Temperature         °C          31           Turbidity         NTU         5.0         1.2           Total Dissolved Solids         mg/L         500         58           DO         mg/L          6.2           BOD         mg/L          4           Nitrate         mg/L          <4	

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST		CERTIFICATE NO:	51/13	
M/s. Hindusthan Chemicals Company GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Bore well Sample Ganesh Automobiles	LAB ID:	74/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	11:37 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21012310	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am	
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	03/02/2021	

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SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.26	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	-	32	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	1.0	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	216	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L	-	4.8	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L	-	<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	1.8	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L	-	0.30	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	104	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	20.6	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	96	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	44.2	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	51.8	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.026	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	122	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L	- W/R	5.76	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOM/s. Hindusthan Chemicals		CERTIFICATE NO:	51/14	
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	03/02/2021	
SAMPLE DESCRIPTION:	Bore well Sample Nemlaxmi Books	LAB ID:	75/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	12:03 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21012311	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am	
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	03/02/2021	

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	RESULT TABLE.						
SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD		
01	рН	pH Unit	6.5 to 8.5	7.48	IS:3025 (Part 11): 1983 Reff.2017		
02	Temperature	°C		30	IS: 3025 (Part 9): 1984 Reff:2017		
03	Turbidity	NTU	5.0	0.96	IS:3025 (Part 10): 1984 Reff.2017		
04	Total Dissolved Solids	mg/L	500	128	IS:3025 (Part 16): 1984 Reff.2017		
05	DO	mg/L	-	4.2	IS 3025 (Part 38): 1989 Reff.2019		
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019		
07	Nitrate	mg/L	45	1.2	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B		
08	Total Phosphate	mg/L		0.26	IS: 3025 (Part 31): 1988 Reff.2019		
09	Chloride	mg/L	250	74	IS:3025 (Part 32): 1988 Reff 2019		
10	Sulphate	mg/L	200	16.2	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C		
11	Total Hardness	mg/L	300	72	IS: 3025 (Part 21): 2009 Reff.2019		
12	Calcium	mg/L	75	56.4	IS: 3025 (Part 40): 1991 Reff.2019		
13	Magnesium	mg/L	30	15.6	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.		
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998		
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019		
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019		
17	Iron	mg/L	0.3	0.030	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B		
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019		
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019		
20	Total Alkalinity	mg/L	200	134	IS: 3025 (Part23): 1986 Reff. 2019		
21	Silica	mg/L	i	6.92	IS: 3025 (Part 35): 1988 Reff.2019		
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D		

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST		CERTIFICATE NO:	51/15
M/s. Hindusthan Chemicals GIDC Industrial Estate, P.O. 0 Tal.: Olpad, Dist.: Surat-3945	Olpad,	ISSUE DATE:	03/02/2021
SAMPLE DESCRIPTION:	Bore well Sample Surat Drums Factory	LAB ID:	76/1
SAMPLE COLLECTED BY:	COLLECTED BY: Earth Care Enviro Solutions Pvt. Ltd.  SAMPLE QUANTITY:		2 Liter in Plastic carboy & 100 ml in Sterile bottle
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	12:29 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21012312
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	03/02/2021

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.06	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		31	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	1.4	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	42	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		5.6	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L	-	<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	0.9	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L	-	0.22	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	18.2	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	6.8	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	18	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	10.8	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	5.2	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.042	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	156	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L		6.84	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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(TECHNICAL MANAGER)



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST M/s. Hindusthan Chemicals	Company	CERTIFICATE NO:	51/16
GIDC Industrial Estate, P.O. C Tal.: Olpad, Dist.: Surat-3945	• •	ISSUE DATE:	03/02/2021
SAMPLE DESCRIPTION:	Bore well Sample Masma Village	LAB ID:	77/1
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	12:46 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21012313
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	03/02/2021

#### **RESULT TABLE:**

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.34	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		32	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.92	IS:3025 (Part 10): 1984 Reff.2017
04	<b>Total Dissolved Solids</b>	mg/L	500	34	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		5.0	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	1.0	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.18	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	16.8	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	6.0	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	14	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	8.9	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	5.1	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.014	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	118	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L	2-ta	5.96	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOM/s. Hindusthan Chemicals		CERTIFICATE NO:	87/13	
GIDC Industrial Estate, P.O. C Tal.: Olpad, Dist.: Surat-3945	Olpad,	ISSUE DATE:	24/02/2021	
SAMPLE DESCRIPTION:	Bore well Sample Ganesh Automobiles	LAB ID:	21/2	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy 100 ml in Sterile bottle	
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	11:47 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21020310	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am	
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	13/02/2021	

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.34	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	-	33	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	1.4	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	242	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L	-	5.2	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L	-	<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	2.0	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L	•	0.36	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	116	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	22.8	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	104	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	54.6	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	49.4	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.034	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	136	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L	-	6.28	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST		CERTIFICATE NO:	87/14	
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	24/02/2021	
SAMPLE DESCRIPTION:  Bore well Sample Nemlaxmi Books		LAB ID:	22/2	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy 8 100 ml in Sterile bottle	
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	12:10 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21020311	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am	
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	13/02/2021	

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	На	pH Unit	6.5 to 8.5	7.54	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		32	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.98	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	138	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		4.6	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	1.4	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.30	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	82	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	20.4	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	82	IS: 3025 (Part 21): 2009 Reff.2019

IS: 3025 (Part 40): 1991 Reff.2019 75 60.2 mg/L 12 Calcium APHA 23<sup>rd</sup> ed.2017,3500-Mg B. 21.8 mg/L 30 Magnesium 13 IS:3025 (Part 27): 1986 Reff.1998 0.05 NIL mg/L 14 **Cyanides** IS: 3025 (Part 52): 2003 Reff. 2019 0.05 < 0.03 mg/L Chromium 15 0.05 < 0.02 IS 3025 (Part 42): 1992 Reff. 2019 mg/L 16 Copper APHA23<sup>rd</sup> ed.2017,3500 Fe.B 0.3 0.032 mg/L 17 Iron 0.05 < 0.01 IS 3025 (Part 49): 1994, Reff.2019 mg/L Zinc 18 IS 3025 (Part 47): 1994 Reff.2019 0.05 <0.1 Lead mg/L 19 IS: 3025 (Part23): 1986 Reff. 2019 200 144 mg/L **Total Alkalinity** 20 IS: 3025 (Part 35): 1988 Reff.2019 7.22 21 Silica mg/L APHA 23<sup>rd</sup> ed.2017,9221-D /100 ml Absent **Absent** 22 **Total Coli form** 

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ISO :9001 : 2015 ISO :14001 : 2015 OH&S: 45001 : 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOM/s. Hindusthan Chemicals		CERTIFICATE NO:	87/15	
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	24/02/2021	
SAMPLE DESCRIPTION:	Bore well Sample Surat Drums Factory	LAB ID:	23/2	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	12:20 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21020312	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am	
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	13/02/2021	

**RESULT TABLE:** 

			KLJOET TADLE	•	
SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	Н	pH Unit	6.5 to 8.5	7.32	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	-	30	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	1.2	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	38	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		4.2	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	0.7	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.20	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	16.4	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	6.2	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	16	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	8.02	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	7.98	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.040	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
t -	Total Alkalinity	mg/L	200	150	IS: 3025 (Part23): 1986 Reff. 2019
20		mg/L		6.20	IS: 3025 (Part 35): 1988 Reff.2019
21	Silica Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D
22	Total Coll form	/ 100 1111	/ NOCTIV		And the second s

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOM/s. Hindusthan Chemicals		CERTIFICATE NO:	87/16 24/02/2021	
GIDC Industrial Estate, P.O. C Tal.: Olpad, Dist.: Surat-3945	•	ISSUE DATE:		
SAMPLE DESCRIPTION:  SAMPLE COLLECTED BY:  Bore well Sample Masma Village Earth Care Enviro Solutions Pvt. Ltd.		LAB ID:	24/2	
		SAMPLE QUANTITY:	2 Liter in Plastic carboy 8 100 ml in Sterile bottle	
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	12:50 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21020313	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am	
TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	13/02/2021	

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.16	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		31	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.86	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	32	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L	-	4.6	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	0.8	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.16	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	14.8	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	4.2	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	12	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	8.12	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	3.88	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.010	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	108	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L	_	5.24	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

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PREPARED BY:

(TECHNICAL MANAGER)



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### **TEST REPORT/CERTIFICATE**

NAME & ADDRESS OF CUST M/s. Hindusthan Chemicals		CERTIFICATE NO:	136/13	
GIDC Industrial Estate, P.O. ( Tal.: Olpad, Dist.: Surat-3945	Olpad,	ISSUE DATE:	30/03/2021	
SAMPLE DESCRIPTION:	Bore well Sample Ganesh Automobiles	LAB ID:	17/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	11:30 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21030610	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am	
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	19/03/2021	

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.12	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	-	34	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.56	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	208	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L	-	4.2	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L	-	<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	1.2	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L	•	0.15	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	102	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	20.2	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	92	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	42.0	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	50	APHA 23 <sup>rc</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.022	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	110	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L		4.32	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST M/s. Hindusthan Chemicals		CERTIFICATE NO:	136/14	
GIDC Industrial Estate, P.O. ( Tal.: Olpad, Dist.: Surat-3945	Olpad,	ISSUE DATE:	30/03/2021	
SAMPLE DESCRIPTION:	Bore well Sample Nemlaxmi Books	LAB ID:	18/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	11:40 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21030611	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am	
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	19/03/2021	

RESULT TABLE:

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.24	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		33	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.42	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	114	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		3.8	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L	arm .	<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	8.0	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.13	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	72	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	14.0	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	68	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	52.2	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	15.8	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 201
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.020	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	122	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L		5.40	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

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**END OF TEST REPORT/CERTIFICATE** 



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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST M/s. Hindusthan Chemicals		CERTIFICATE NO:	136/15 30/03/2021	
GIDC Industrial Estate, P.O. C Tal.: Olpad, Dist.: Surat-3945	Olpad,	ISSUE DATE:		
SAMPLE DESCRIPTION:	Bore well Sample Surat Drums Factory	LAB ID:	19/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	12:00 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21030612	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am	
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	19/03/2021	

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.03	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°c		34	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.70	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	32	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		5.2	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	0.4	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.11	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	14.0	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	4.2	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	12	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	6.82	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	5.18	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.036	APHA23 <sup>r3</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	132	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L		4.42	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST M/s. Hindusthan Chemicals		CERTIFICATE NO:	136/16 30/03/2021	
GIDC Industrial Estate, P.O. C Tal.: Olpad, Dist.: Surat-3945	•	ISSUE DATE:		
SAMPLE DESCRIPTION:	Bore well Sample Masma Village	LAB ID:	20/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	12:20 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21030613	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am	
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	19/03/2021	

#### **RESULT TABLE:**

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.02	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		32	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.40	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	28	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		4.6	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	0.5	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L	_	0.09	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	12.4	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	4.0	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	10	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	6.40	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	3.60	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.016	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	108	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L		3.40	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

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# EARTH CARE

## POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

31-32, Moradia House, Shiv Ashish Industrial Society-II, Opp. S.M.C. Community Hall, B/H. Raj Carrying Cargo Pvt. Ltd., South Zone Road, Nr. Chosath Jogani Mata Mandir, Udhna Magdalla Road, Surat - 394 210, www.earthcare.org.in E-mail: office@earthcare.org.in / lab@earthcare.org.in / info@earthcare.org.in

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST		CERTIFICATE NO:	175/13	
M/s. Hindusthan Chemicals GIDC Industrial Estate, P.O. ( Tal.: Olpad, Dist.: Surat-3945	Olpad,	ISSUE DATE:	26/04/2021	
SAMPLE DESCRIPTION:	Bore well Sample Ganesh Automobiles	LAB ID:	67/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	11:40 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21041410	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am	
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021	

RESULT TABLE:						
SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD	
01	pH	pH Unit	6.5 to 8.5	7.28	IS:3025 (Part 11): 1983 Reff.2017	
02	Temperature	°C	-	36	IS: 3025 (Part 9): 1984 Reff:2017	
03	Turbidity	NTU	5.0	0.66	IS:3025 (Part 10): 1984 Reff.2017	
04	Total Dissolved Solids	mg/L	500	292	IS:3025 (Part 16): 1984 Reff.2017	
05	DO	mg/L	-	5.8	IS 3025 (Part 38): 1989 Reff.2019	
06	BOD	mg/L	-	<4	IS: 3025 (Part 44): 1993 Reff.2019	
07	Nitrate	mg/L	45	2.0	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B	
08	Total Phosphate	mg/L	-	0.20	IS: 3025 (Part 31): 1988 Reff.2019	
09	Chloride	mg/L	250	130	IS:3025 (Part 32): 1988 Reff 2019	
10	Sulphate	mg/L	200	28.4	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C	
11	Total Hardness	mg/L	300	112	IS: 3025 (Part 21): 2009 Reff.2019	
12	Calcium	mg/L	75	56.2	IS: 3025 (Part 40): 1991 Reff.2019	
13	Magnesium	mg/L	30	55.8	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.	
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998	
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019	
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019	
17	Iron	mg/L	0.3	0.030	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B	
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019	
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019	
20	Total Alkalinity	mg/L	200	132	IS: 3025 (Part23): 1986 Reff. 2019	
21	Silica	mg/L	-	6.26	IS: 3025 (Part 35): 1988 Reff.2019	
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D	

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATURY: (SURESH MORADIA)



ISO :9001 2015 ISO :14001 : 2015 OH&S : 45001 : 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST M/s. Hindusthan Chemicals		CERTIFICATE NO:	175/14 26/04/2021	
GIDC Industrial Estate, P.O. ( Tal.: Olpad, Dist.: Surat-3945	Olpad,	ISSUE DATE:		
SAMPLE DESCRIPTION:	Bore well Sample Nemlaxmi Books	LAB ID:	68/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	11:53 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21041411	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am	
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021	

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	На	pH Unit	6.5 to 8.5	7.36	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		34	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.52	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	164	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		4.0	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	1.6	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L	-	0.26	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	94	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	20.0	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	92	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	60.6	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	31.4	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.026	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	154	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L		8.60	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rc</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



ISO .9001 | 2015 ISO .14001 | 2015 OH&S . 45001 | 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST		CERTIFICATE NO:	175/15	
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	26/04/2021	
SAMPLE DESCRIPTION:	Bore well Sample Surat Drums Factory	LAB ID:	69/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	12:10 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21041412	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am	
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021	

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.12	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		38	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.74	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	52	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		4.8	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	1.0	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.18	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	20.2	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	8.0	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	34	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	10.2	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	23.8	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.044	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	98	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L		6.02	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOM/s. Hindusthan Chemicals		CERTIFICATE NO:	175/16	
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	26/04/2021	
SAMPLE DESCRIPTION:	Bore well Sample Masma Village	LAB ID:	70/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	12:30 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21041413	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am	
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021	

			RESULT TABLE	<u>:</u>	
SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.30	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	-	33	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.58	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	44	IS:3025 (Part 16): 1984 Reff.2017
05	DO	mg/L		4.2	IS 3025 (Part 38): 1989 Reff.2019
06	BOD	mg/L	- 10-01	<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	1.2	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.14	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	18.6	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	6.8	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-0
11	Total Hardness	mg/L	300	26	IS: 3025 (Part 21): 2009 Reff.201
12	Calcium	mg/L	.75	8.2	IS: 3025 (Part 40): 1991 Reff.201
13	Magnesium	mg/L	30	17.8	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 201
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 201
17	Iron	mg/L	0.3	0.022	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.201
	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
19	Total Alkalinity	mg/L	200	140	IS: 3025 (Part23): 1986 Reff. 201
20	Silica	mg/L		4.52	IS: 3025 (Part 35): 1988 Reff.201
21	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

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OH&S 45001: 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUST M/s. HINDUSTHAN CHEMIC		CERTIFICATE NO:	240/9	
GIDC Industrial Estate, P.O. ( Tal.: Olpad, Dist.: Surat-3945		ISSUE DATE:	07/06/2021	
SAMPLE DESCRIPTION:  Bore well Sample Ganesh Automobiles		LAB ID:	121/5	
SAMPLE COLLECTED BY: Earth Care Enviro Solutions Pyt. Ltd.		SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	11;40 am EESPL21052814 Sealed	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:		
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:		
SAMPLE RECEIVED DATE:	AMPLE RECEIVED DATE: 29/05/2021		10:47 am	
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	07/06/2021	
	RESUI	T TABLE:		

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.27	IS:3025 (Part 11): 1983 Reff.203
02	Temperature	¯°C		30	IS: 3025 (Part 9): 1984 Reff:201
03	Turbidity	NTU	5.0	1.2	IS:3025 (Part 10): 1984 Reff.20:
04	Total Dissolved Solids	mg/L	500	232	IS:3025 (Part 16): 1984 Reff.20:
05	Dissolved Oxygen	mg/L	-	4.9	IS 3025 (Part 38): 1989 Reff.201
06	Biochemical Oxygen Demand (3 days at 27°C)	mg/L	^	<4	IS: 3025 (Part 44): 1993 Reff.20
07	Nitrate	mg/L	45	1.9	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.34	IS: 3025 (Part 31): 1988 Reff.20
09	Chloride	mg/L	250	112	IS:3025 (Part 32): 1988 Reff 201
10	Sulphate	mg/L	200	21.8	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42
11	Total Hardness	mg/L	300	99	IS: 3025 (Part 21): 2009 Reff.20
12	Calcium	mg/L	75	40.3	IS: 3025 (Part 40): 1991 Reff.20
13	Magnesium	mg/L	30	50.2	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.199
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 20
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 20
17	Iron	mg/L	0.3	0.031	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.20
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.201
20	Total Alkalinity	mg/L	200	131	IS: 3025 (Part23): 1986 Reff. 20
21	Silica	mg/L	-	5.93	IS: 3025 (Part 35): 1988 Reff.20
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)



ISO :9001 : 2015 ISO :14001 2015 OH&S : 45001 : 2018

# EARTH CARE

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NAME & ADDRESS OF CUST M/s. HINDUSTHAN CHEMIC		CERTIFICATE NO:	240/10 07/06/2021	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394		ISSUE DATE:		
SAMPLE DESCRIPTION:	Bore well Sample Nemlaxmi Books	LAB ID:	122/5	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	11:53 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052815	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am	
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	07/06/2021	

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.08	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		33	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.87	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	131	IS:3025 (Part 16): 1984 Reff.2017
05	Dissolved Oxygen	mg/L		4.3	IS 3025 (Part 38): 1989 Reff.2019
06	Biochemical Oxygen Demand (3 days at 27°C)	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	1.3	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L	-	0.28	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	80	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	18.2	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	76	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	59.3	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	18.1	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
1.5	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.034	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff.2019
20	Total Alkalinity	mg/L	200	139	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L		6.81	IS: 3025 (Part 35): 1988 Reff.2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017,9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)



OH&S: 45001: 2018

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NAME & ADDRESS OF CUST M/s. HINDUSTHAN CHEMIC		CERTIFICATE NO:	240/11	
GIDC Industrial Estate, P.O. Tal.: Olpad, Dist.: Surat-394	Olpad,	ISSUE DATE:	07/06/2021	
SAMPLE DESCRIPTION:	Bore well Sample Surat Drums Factory	LAB ID:	123/5	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle	
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	12:10 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052816	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am	
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	07/06/2021	

RESULT TABLE: SR. **Desirable Limits PARAMETER** UNIT **RESULT** TEST METHOD (As per IS 10500) NO: pH Unit 6.5 to 8.5 7.12 01 pH IS:3025 (Part 11): 1983 Reff.2017 °C **Temperature** 32 IS: 3025 (Part 9): 1984 Reff:2017 02 NTU 5.0 03 Turbidity 1.3 IS:3025 (Part 10): 1984 Reff.2017 04 **Total Dissolved Solids** mg/L 500 39 IS:3025 (Part 16): 1984 Reff.2017 **Dissolved Oxygen** 5.2 05 mg/L IS 3025 (Part 38): 1989 Reff.2019 **Biochemical Oxygen Demand** 06 mg/L <4 IS: 3025 (Part 44): 1993 Reff.2019 (3 days at 27°C) APHA23<sup>rd</sup> ed.2017,4500 NO3.B 0.8 07 **Nitrate** mg/L 45 08 **Total Phosphate** 0.021 IS: 3025 (Part 31): 1988 Reff.2019 mg/L 09 Chloride 250 17.5 mg/L IS:3025 (Part 32): 1988 Reff 2019 10 Sulphate 200 6.4 APHA 23<sup>rd</sup> ed. 2017,4500-SO42-C mg/L **Total Hardness** 300 27 11 mg/L IS: 3025 (Part 21): 2009 Reff.2019 Calcium 75 19.4 12 mg/L IS: 3025 (Part 40): 1991 Reff.2019 13 Magnesium 30 6.94 mg/L APHA 23<sup>rd</sup> ed.2017,3500-Mg B. 14 Cyanides 0.05 NIL mg/L IS:3025 (Part 27): 1986 Reff.1998 0.05 15 Chromium < 0.03 mg/L IS: 3025 (Part 52): 2003 Reff. 2019 16 Copper 0.05 < 0.02 IS 3025 (Part 42): 1992 Reff. 2019 mg/L APHA23<sup>rd</sup> ed.2017,3500 Fe.B 17 Iron 0.3 0.047 mg/L 0.05 18 Zinc mg/L < 0.01 IS 3025 (Part 49): 1994, Reff.2019 0.05 19 Lead mg/L < 0.1 IS 3025 (Part 47): 1994 Reff.2019 **Total Alkalinity** 20 200 153 IS: 3025 (Part23): 1986 Reff. 2019 mg/L 21 Silica mg/L 6.53 IS: 3025 (Part 35): 1988 Reff.2019 **Total Coli form** APHA 23<sup>rd</sup> ed.2017,9221-D /100 ml Absent **Absent** 

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:
(SURESH MORADIA)

TORE



ISO :9001 2015 ISO :14001 2015 OH85:45001 2018

## EARTH CARE

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NAME & ADDRESS OF CUSTOMER: M/s. HINDUSTHAN CHEMICALS COMPANY GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	240/12
		ISSUE DATE:	07/06/2021
SAMPLE DESCRIPTION:	Bore well Sample Masma Village	LAB ID:	124/5
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	2 Liter in Plastic carboy & 100 ml in Sterile bottle
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	12:30 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052817
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	07/06/2021

SR. NO:	PARAMETER	UNIT	Desirable Limits (As per IS 10500)	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.35	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C		34	IS: 3025 (Part 9): 1984 Reff:2017
03	Turbidity	NTU	5.0	0.90	IS:3025 (Part 10): 1984 Reff.2017
04	Total Dissolved Solids	mg/L	500	33	IS:3025 (Part 16): 1984 Reff.2017
05	Dissolved Oxygen	mg/L		4.8	IS 3025 (Part 38): 1989 Reff.2019
06	Biochemical Oxygen Demand (3 days at 27°C)	mg/L		<4	IS: 3025 (Part 44): 1993 Reff.2019
07	Nitrate	mg/L	45	0.9	APHA23 <sup>rd</sup> ed.2017,4500 NO3.B
08	Total Phosphate	mg/L		0.17	IS: 3025 (Part 31): 1988 Reff.2019
09	Chloride	mg/L	250	15.4	IS:3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	200	5.3	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Total Hardness	mg/L	300	13	IS: 3025 (Part 21): 2009 Reff.2019
12	Calcium	mg/L	75	8.11	IS: 3025 (Part 40): 1991 Reff.2019
13	Magnesium	mg/L	30	4.43	APHA 23 <sup>rd</sup> ed.2017,3500-Mg B.
14	Cyanides	mg/L	0.05	NIL	IS:3025 (Part 27): 1986 Reff.1998
15	Chromium	mg/L	0.05	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Copper	mg/L	0.05	<0.02	IS 3025 (Part 42): 1992 Reff. 2019
17	Iron	mg/L	0.3	0.012	APHA23 <sup>rd</sup> ed.2017,3500 Fe.B
18	Zinc	mg/L	0.05	<0.01	IS 3025 (Part 49): 1994, Reff.2019
19	Lead	mg/L	0.05	<0.1	IS 3025 (Part 47): 1994 Reff, 2019
20	Total Alkalinity	mg/L	200	115	IS: 3025 (Part23): 1986 Reff. 2019
21	Silica	mg/L	Area.	6.01	IS: 3025 (Part 35): 1988 Reff. 2019
22	Total Coli form	/100 ml	Absent	Absent	APHA 23 <sup>rd</sup> ed.2017.9221-D

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)

Annexure 14

### Effluent Sampling & Analysis Method, Analysis Report & Month Wise Comparison

S. No.	Particulars	Test method		
1.	pH	IS: 3025 (Part 11)-1983 Reff. 2017		
2.	Temperature	IS: 3025 (Part 9) 1984 Re. 2017		
3.	Color	IS: 3025 (Part 39): 1991 Reff. 2014		
4.	Total Dissolved Solids	IS 3025 (Part 16)-1984 Reff. 2017		
5.	Suspended Solids IS 3025 (Part 17)-1984 Reff. 2017			
6.	COD	APHA 23 <sup>rd</sup> ed. 2017, 5220 B		
7.	BOD	IS: 3025 (Part 44)-1993 Reff.2014		
8.	Oil & Grease	IS 3025 (Part 39)-1991 Reff. 2014		
9.	Chloride	IS 3025 (Part 32)-1988 Reff. 2014		
10.	Sulphate	APHA 23 <sup>rd</sup> ed.2017, 4500-SO42-C		
11.	Ammonical Nitrogen	IS: 3025 (Part 34) :1988 Reff. 2014		
12.	Phenolic Compound	IS: 3025 (Part 43) 1992 Reff. 2014		
13.	Cyanides	IS:3025 (Part 27):1986 Reff.1998		
14.	Hexavelent Chromium	APHA 23 <sup>rd</sup> ed. 2017, 3500 Cr+6/B		
15.	Total Chromium	IS: 3025 (Part 52): 2003 Reff. 2014		
16.	Sulphides	IS:3025 (Part 29):1986 Reff.1992		
17.	Fluoride	APHA23 <sup>rd</sup> ed. 2017, 4500F .D		
18.	Bio Assay Test	IS 6582 (Part 2): 2001		

### Monthly Comparison of Effluent sample (Equalization Tank)

S. no.	Parameters	Unit	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21
01	pН	pH Unit	6.90	6.96	6.78	6.34	6.02	6.18
02	Temperature	°C	30	32	33	34	32	34
03	Color	Hazen	24	26	30	22	28	29
04	Total Dissolved Solids	mg/L	528	482	472	438	504	478
05	Suspended Solids	mg/L	6.2	5.4	3.8	2.6	6.8	4.7
06	COD	mg/L	62.8	56.2	52	60.8	74.2	66.2
07	BOD	mg/L	18.2	14.0	10	16.2	20.8	17.7
08	Oil & Grease	mg/L	2.2	2.6	2.2	1.4	2.0	1.8
09	Chloride	mg/L	42.76	38.22	34.48	26.72	32.80	31.07
10	Sulphate	mg/L	46	32	28	20	26.62	24.05
11	Ammonical Nitrogen	mg/L	1.2	1.6	1.0	0.92	1.8	1.4
12	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
13	Cyanides	mg/L	NIL	NIL	NIL	NIL	NIL	NIL
14	Hexavelent Chromium	mg/L	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
15	Total Chromium	mg/L	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
16	Sulphides	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
17	Fluoride	mg/L	0.24	0.20	0.16	0.22	0.14	0.18

### Monthly Comparison of Effluent sample (Final Outlet to ZLD)

Sr.no.	Parameters	Unit	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21
01	рН	pH Unit	7.04	7.12	7.02	7.32	7.20	7.26
02	Temperature	°C	29	31	30	33	31	30
03	Color	Pt. Co	18	20	22	16	22	18
04	Total Dissolved Solids	mg/L	26	22	20	12	40	32
05	Suspended Solids	mg/L	0.82	0.92	0.78	0.66	1.6	1.2
06	COD	mg/L	NIL	1.46	1.06	1.32	3.08	2.34
07	BOD	mg/L	NIL	NIL	NIL	NIL	NIL	NIL
08	Oil & Grease	mg/L	1.0	1.4	1.0	0.84	1.2	0.98
09	Chloride	mg/L	14	12	10.62	8.26	10.16	9.17
10	Sulphate	mg/L	10	8.06	6.96	4.78	6.80	5.56
11	Ammonical Nitrogen	mg/L	1.0	0.82	0.64	0.80	0.64	0.73
12	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
13	Cyanides	mg/L	NIL	NIL	NIL	NIL	NIL	NIL
14	Hexavelent Chromium	mg/L	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
15	Total Chromium	mg/L	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
16	Sulphides	mg/L	BDL	BDL	BDL	BDL	BDL	BDL
17	Fluoride	mg/L	0.14	0.09	0.05	0.03	0.01	0.02
18	Bio Assay Test	%	98	97	98	98	96	97



ISO :9001 : 2015 ISO :14001 : 2015 OH&S: 45001 : 2018

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Page 11 of 18

### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	505/11
		ISSUE DATE:	26/12/2020
SAMPLE DESCRIPTION:	Water Sample (Equalization Tank)	LAB ID:	42/12
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter
SAMPLING DATE:	08/12/2020	SAMPLING TIME:	12:03 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL201120806
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	09/12/2020	SAMPLE RECEIVED TIME:	10:15 am
TEST START DATE:	09/12/2020	TEST COMPLETION DATE:	17/12/2020

SR. NO:	PARAMETER	UNIT	RESULT	TEST METHOD
01	рН	pH Unit	6.90	IS: 3025 (Part 11): 1983 Reff.2017
02	Temperature	<sup>U</sup> C	30	IS: 3025 (Part 9): 1984 Reff. 2017
03	Color	Hazen	24	APHA 23 <sup>rd</sup> ed.2017,2120-C
04	Total Dissolved Solids	mg/L	528	IS: 3025 (Part 16): 1984 Reff. 2017
05	Suspended Solids	mg/L	6.2	IS: 3025 (Part 17): 1984 Reff. 2017
06	COD	mg/L	62.8	APHA 23 <sup>rd</sup> ed. 2017,5220 B
07	BOD	mg/L	18.2	IS: 3025 (Part 44): 1993 Reff.2019
08	Oil & Grease	mg/L	2.2	IS: 3025 (Part 39): 1991 Reff. 2019
09	Chloride	mg/L	42.76	IS: 3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	46	APHA 23 <sup>rd</sup> ed. 2017,4500-S042-C
11	Ammonical Nitrogen	mg/L	1.2	IS: 3025 (Part 34): 1988 Reff. 2019
12	Phenolic Compound	mg/L	BDL	IS: 3025 (Part 43): 1992 Reff. 2019
13	Cyanides	mg/L	NIL	IS: 3025 (Part 27): 1986 Reff.1998
14	Hexavalent Chromium	mg/L	<0.03	APHA 23 <sup>rd</sup> ed. 2017,3500 Cr+6/B
15	Total Chromium	mg/L	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Sulphides	mg/L	BDL	IS: 3025 (Part 29): 1986 Reff.2019
17	Fluoride	mg/L	0.24	APHA23 <sup>rd</sup> ed.2017,4500FD

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

- ADOOD LICE

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:



OH85: 45001: 2018

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Page 12 of 18

### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	505/12 26/12/2020	
		ISSUE DATE:		
SAMPLE DESCRIPTION:	Water Sample (Final Outlet to ZLD)	LAB ID:	43/12	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter	
SAMPLING DATE:	08/12/2020	SAMPLING TIME:	12:35 pm	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL201120807	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	09/12/2020	SAMPLE RECEIVED TIME:	10:15 am	
TEST START DATE:	09/12/2020	TEST COMPLETION DATE:	17/12/2020	

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.04	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	40	29	IS: 3025 (Part 9): 1984 Reff.2017
03	Color	Hazen	100	18	IS: 3025 (Part 4): 1991 Reff.2017
04	Total Dissolved Solids	mg/L	-	26	IS: 3025 (Part 16): 1984 Reff.2019
-	Suspended Solids	mg/L	100	0.82	IS: 3025 (Part 17): 1984 Reff.2017
05	COD	mg/L	250	NIL	APHA 23 <sup>rd</sup> ed. 2017,5220 B
06		mg/L	30	NIL	IS: 3025 (Part 44): 1993 Reff.2019
07	BOD	mg/L	10	1.0	IS: 3025 (Part 39): 1991 Reff.2019
80	Oil & Grease	mg/L		14	IS:3025 (Part 32): 1988 Reff.2019
09	Chloride	-		10	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
10	Sulphate	mg/L	-	1.0	IS: 3025 (Part 34): 1988 Reff.2019
11	Ammonical Nitrogen	mg/L	50		IS: 3025 (Part 43): 1992 Reff.2019
12	Phenolic Compound	mg/L	1.0	BDL	
13	Cyanides	mg/L	0.2	NIL	IS:3025 (Part 27): 1986 Reff.1998
14	Hexavalent Chromium	mg/L	0.1	<0.03	APHA 23 <sup>rd</sup> ed. 2017,3500 Cr+6/B
	Total Chromium	mg/L	2.0	<0.03	IS: 3025 (Part 52): 2003 Reff.2019
15		mg/L	2.0	BDL	IS:3025 (Part 29): 1986 Reff.2019
16	Sulphides		1.5	0.14	APHA23 <sup>rd</sup> ed. 2017,4500F <sup>-</sup> .D
17	Fluoride	mg/L	1,5	98	IS: 6582 (Part 2): 2001 Reff.2019
18	Bio Assay Test	%			

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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AUTHORISED SIGNATORY:

(SURESH MORADIA)

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ISO :9001 ISO :14001 : 2015 OH85: 45001: 2018

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Page 11 of 18

#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,  Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO: ISSUE DATE:	51/11 03/02/2021
SAMPLE DESCRIPTION:	Water Sample (Equalization Tank)	LAB ID:	72/1
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	10:53 am
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21012308
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	03/02/2021

	RESULT TABLE:							
SR. NO:	PARAMETER	UNIT	RESULT	TEST METHOD				
01	рН	pH Unit	6.96	IS: 3025 (Part 11): 1983 Reff.2017				
02	Temperature	°C	32	IS: 3025 (Part 9): 1984 Reff. 2017				
03	Color	Hazen	26	APHA 23 <sup>rd</sup> ed.2017,2120-C				
04	Total Dissolved Solids	mg/L	482	IS: 3025 (Part 16): 1984 Reff. 2017				
05	Suspended Solids	mg/L	5.4	IS: 3025 (Part 17): 1984 Reff. 2017				
06	COD	mg/L	56.2	APHA 23 <sup>rd</sup> ed. 2017,5220 B				
07	BOD	mg/L	14.0	IS: 3025 (Part 44): 1993 Reff.2019				
08	Oil & Grease	mg/L	2.6	IS: 3025 (Part 39): 1991 Reff. 2019				
09	Chloride	mg/L	38.22	IS: 3025 (Part 32): 1988 Reff 2019				
10	Sulphate	mg/L	32	APHA 23 <sup>rd</sup> ed. 2017,4500-S042-C				
11	Ammonical Nitrogen	mg/L	1.6	IS: 3025 (Part 34): 1988 Reff. 2019				
12	Phenolic Compound	mg/L	BDL	IS: 3025 (Part 43): 1992 Reff. 2019				
13	Cyanides	mg/L	NIL	IS: 3025 (Part 27): 1986 Reff.1998				

mg/L

mg/L

mg/L

mg/L

Note: BDL: Below detection Limit

Sulphides

Fluoride

**Total Chromium** 

14

15

16

17

**Hexavelent Chromium** 

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)

PREPARED BY: (TECHNICAL MANAGER)

APHA 23<sup>rd</sup> ed. 2017,3500 Cr+6/B

IS: 3025 (Part 52): 2003 Reff. 2019

IS: 3025 (Part 29): 1986 Reff.2019

APHA23<sup>rd</sup> ed.2017,4500F-.D

<0.03

< 0.03

**BDL** 

0.20



ISO :9001 : 2015 ISO :14001 : 2015 OH&S: 45001: 2018

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOR M/s. Hindusthan Chemicals Co	ompany	CERTIFICATE NO:	51/12 03/02/2021	
GIDC Industrial Estate, P.O. Ol Tal.: Olpad, Dist.: Surat-39454		ISSUE DATE:		
SAMPLE DESCRIPTION:	Water Sample (Final Outlet to ZLD)	LAB ID:	73/1	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter	
SAMPLING DATE:	23/01/2021	SAMPLING TIME:	11:14 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21012309	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	25/01/2021	SAMPLE RECEIVED TIME:	10:07 am	
TEST START DATE:	25/01/2021	TEST COMPLETION DATE:	03/02/2021	

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SR. NO:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.12	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	40	31	IS: 3025 (Part 9): 1984 Reff.2017
03	Color	Hazen	100	20	IS: 3025 (Part 4): 1991 Reff.2017
04	Total Dissolved Solids	mg/L	-	22	IS: 3025 (Part 16): 1984 Reff.2019
05	Suspended Solids	mg/L	100	0.92	IS: 3025 (Part 17): 1984 Reff.2017
06	COD	mg/L	250	1.46	APHA 23 <sup>rd</sup> ed. 2017,5220 B
07	BOD	mg/L	30	NIL	IS: 3025 (Part 44): 1993 Reff.2019
08	Oil & Grease	mg/L	10	1.4	IS: 3025 (Part 39): 1991 Reff.2019
09	Chloride	mg/L	-	12	IS:3025 (Part 32): 1988 Reff.2019
10	Sulphate	mg/L	-	8.06	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
11	Ammonical Nitrogen	mg/L	50	0.82	IS: 3025 (Part 34): 1988 Reff.2019
12	Phenolic Compound	mg/L	1.0	BDL	IS: 3025 (Part 43): 1992 Reff.2019
13	Cyanides	mg/L	0.2	NIL	IS:3025 (Part 27): 1986 Reff.1998
14	Hexavelent Chromium	mg/L	0.1	<0.03	APHA 23 <sup>rd</sup> ed. 2017,3500 Cr+6/B
15	Total Chromium	mg/L	2.0	<0.03	IS: 3025 (Part 52): 2003 Reff.2019
16	Sulphides	mg/L	2.0	BDL	IS:3025 (Part 29): 1986 Reff.2019
17	Fluoride	mg/L	1.5	0.09	APHA23 <sup>rd</sup> ed. 2017,4500F <sup>-</sup> .D
18	Bio Assay Test	%	-	97	IS: 6582 (Part 2): 2001 Reff.2019

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOI M/s. Hindusthan Chemicals C	MER:	CERTIFICATE NO:	87/11
GIDC Industrial Estate, P.O. Ol Tal.: Olpad, Dist.: Surat-39454	pad,	ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	Water Sample (Equalization Tank)	LAB ID:	19/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	11:10 am
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21020308
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
The state of the s	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am
SAMPLE RECEIVED DATE: TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	12/02/2021

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	RESULT	TEST METHOD	
01	pH	pH Unit	6.78	IS: 3025 (Part 11): 1983 Reff.2017	
-		°C 33		IS: 3025 (Part 9): 1984 Reff. 2017	
02	Temperature	Hazen	30	APHA 23 <sup>rd</sup> ed.2017,2120-C	
03	Color Total Dissolved Solids	mg/L	472	IS: 3025 (Part 16): 1984 Reff. 2017	
04	Suspended Solids	mg/L	3.8	IS: 3025 (Part 17): 1984 Reff. 2017	
05		mg/L	52	APHA 23 <sup>rd</sup> ed. 2017,5220 B	
06	BOD	mg/L	10	IS: 3025 (Part 44): 1993 Reff.2019	
07		mg/L	2.2	IS: 3025 (Part 39): 1991 Reff. 2019	
08	Oil & Grease	mg/L	34.48	IS: 3025 (Part 32): 1988 Reff 2019	
09	Chloride	mg/L	28	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C	
10	Sulphate	mg/L	1.0	IS: 3025 (Part 34): 1988 Reff. 2019	
11	Ammonical Nitrogen	mg/L	BDL	IS: 3025 (Part 43): 1992 Reff. 2019	
12	Phenolic Compound	mg/L	NIL	IS: 3025 (Part 27): 1986 Reff.1998	
13	Cyanides		<0.03	APHA 23 <sup>rd</sup> ed. 2017,3500 Cr+6/B	
14	Hexavelent Chromium	mg/L		IS: 3025 (Part 52): 2003 Reff. 2019	
15	Total Chromium	mg/L	<0.03	IS: 3025 (Part 29): 1986 Reff.2019	
16	Sulphides	mg/L	BDL		
17	Fluoride	mg/L	0.16	APHA23 <sup>rd</sup> ed.2017,4500F*.D	

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

-Stevadia

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOM M/s. Hindusthan Chemicals Co	ompany	CERTIFICATE NO:	87/12
GIDC Industrial Estate, P.O. Olg Tal.: Olpad, Dist.: Surat-394540	oad, )	ISSUE DATE:	24/02/2021
SAMPLE DESCRIPTION:	Water Sample (Final Outlet to ZLD)	LAB ID:	20/2
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter
SAMPLING DATE:	03/02/2021	SAMPLING TIME:	11:24 am
-	Monthly Monitoring	SAMPLE ID NO:	EESPL21020309
PROTOCOL(PURPOSE):	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLING METHOD:	04/02/2021	SAMPLE RECEIVED TIME:	10:21 am
SAMPLE RECEIVED DATE: TEST START DATE:	04/02/2021	TEST COMPLETION DATE:	12/02/2021

			LE:	

SR. NO:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	рН	pH Unit	6.5 to 8.5	7.02	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	40	30	IS: 3025 (Part 9): 1984 Reff.2017
02	Color	Hazen	100	22	IS: 3025 (Part 4): 1991 Reff.2017
	Total Dissolved Solids	mg/L	-	20	IS: 3025 (Part 16): 1984 Reff.2019
04		mg/L	100	0.78	IS: 3025 (Part 17): 1984 Reff.2017
05	Suspended Solids	mg/L	250	1.06	APHA 23 <sup>rd</sup> ed. 2017,5220 B
06	COD	mg/L	30	Nil	IS: 3025 (Part 44): 1993 Reff.2019
07	BOD	mg/L	10	1.0	IS: 3025 (Part 39): 1991 Reff.2019
08	Oil & Grease			10.62	IS:3025 (Part 32): 1988 Reff.2019
09	Chloride	mg/L	-	6.96	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
10	Sulphate	mg/L		0.64	IS: 3025 (Part 34): 1988 Reff.2019
11	Ammonical Nitrogen	mg/L	50		IS: 3025 (Part 43): 1992 Reff.2019
12	Phenolic Compound	mg/L	1.0	BDL	IS:3025 (Part 27): 1986 Reff.1998
13	Cyanides	mg/L	0.2	NIL	APHA 23 <sup>rd</sup> ed. 2017,3500 Cr+6/B
14	Hexavelent Chromium	mg/L	0.1	<0.03	
15	Total Chromium	mg/L	2.0	<0.03	IS: 3025 (Part 52): 2003 Reff.2019
		mg/L	2.0	BDL	IS:3025 (Part 29): 1986 Reff.2019
16	Sulphides	mg/L	1.5	0.05	APHA 23 <sup>rd</sup> ed. 2017,4500F <sup>-</sup> .D
17 18	Fluoride Bio Assay Test	// // // // // // // // // // // // //		98	IS: 6582 (Part 2): 2001 Reff.2019

Note: BDL: Below detection Limit

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AUTHORISED SIGNATORY:

(SURESH MORADIA)

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## EARTH CARE ENVIRO SOLUTIONS PVT. LTD.



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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTO M/s. Hindusthan Chemicals C	MER: ompany	CERTIFICATE NO:	136/11	
GIDC Industrial Estate, P.O. Ol Tal.: Olpad, Dist.: Surat-39454	pad,	ISSUE DATE:	30/03/2021	
SAMPLE DESCRIPTION:	Water Sample (Equalization Tank)	LAB ID:	15/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter	
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	11:00 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21030608	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am	
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	17/03/2021	

**RESULT TABLE:** 

PARAMETER	UNIT	RESULT	TEST METHOD
nH	pH Unit	6.34	IS: 3025 (Part 11): 1983 Reff.2017
	°C	34	IS: 3025 (Part 9): 1984 Reff. 2017
LOCAL TO THE PARTY OF THE PARTY	Hazen	22	APHA 23 <sup>rd</sup> ed.2017,2120-C
	mg/L	438	IS: 3025 (Part 16): 1984 Reff. 2017
NAME OF TAXABLE PARTY.	-	2.6	IS: 3025 (Part 17): 1984 Reff. 2017
	The second section of the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a section in the second section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section in the section is a section in the secti	60.8	APHA 23 <sup>rd</sup> ed. 2017,5220 B
	mg/L	16.2	IS: 3025 (Part 44): 1993 Reff.2019
	mg/L	1.4	IS: 3025 (Part 39): 1991 Reff. 2019
130000000000000000000000000000000000000	-	26.72	IS: 3025 (Part 32): 1988 Reff 2019
		20	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
And the latter with the latter	The second secon	0.92	IS: 3025 (Part 34): 1988 Reff. 2019
		BDL	IS: 3025 (Part 43): 1992 Reff. 2019
		NIL	IS: 3025 (Part 27): 1986 Reff.1998
	and the same	<0.03	APHA 23 <sup>rd</sup> ed. 2017,3500 Cr+6/B
		<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
	-		IS: 3025 (Part 29): 1986 Reff.2019
The second secon			APHA23 <sup>rd</sup> ed.2017,4500F <sup>-</sup> .D
	PARAMETER  pH  Temperature  Color  Total Dissolved Solids  Suspended Solids  COD  BOD  Oil & Grease  Chloride  Sulphate  Ammonical Nitrogen  Phenolic Compound  Cyanides  Hexavelent Chromium  Total Chromium  Sulphides  Fluoride	pH pH Unit  Temperature °C  Color Hazen  Total Dissolved Solids mg/L  Suspended Solids mg/L  COD mg/L  BOD mg/L  Oil & Grease mg/L  Chloride mg/L  Sulphate mg/L  Ammonical Nitrogen mg/L  Phenolic Compound mg/L  Cyanides mg/L  Hexavelent Chromium mg/L  Total Chromium mg/L  Sulphides mg/L	PARAMETER

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

- Fronchia

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OH&S: 45001 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOM M/s. Hindusthan Chemicals Co	ompany	CERTIFICATE NO:	136/12	
GIDC Industrial Estate, P.O. Oly Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	30/03/2021	
SAMPLE DESCRIPTION:	Water Sample (Final Outlet to ZLD)	LAB ID:	16/3	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter	
SAMPLING DATE:	06/03/2021	SAMPLING TIME:	11:15 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21030609	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	08/03/2021	SAMPLE RECEIVED TIME:	10:00 am	
TEST START DATE:	08/03/2021	TEST COMPLETION DATE:	17/03/2021	

**RESULT TABLE:** 

SR. NO:	PARAMETER	UNIT	PERMISSIBLE LIMIT	RESULT	TEST METHOD
01	pH	pH Unit	6.5 to 8.5	7.32	IS:3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	40	33	IS: 3025 (Part 9): 1984 Reff.2017
03	Color	Hazen	100	16	IS: 3025 (Part 4): 1991 Reff.2017
04	Total Dissolved Solids	mg/L	-	12	IS: 3025 (Part 16): 1984 Reff.2019
05	Suspended Solids	mg/L	100	0.66	IS: 3025 (Part 17): 1984 Reff.2017
06	COD	mg/L	250	1.32	APHA 23 <sup>rd</sup> ed. 2017,5220 B
07	BOD	mg/L	30	Nil	IS: 3025 (Part 44): 1993 Reff.2019
08	Oil & Grease	mg/L	10	0.84	IS: 3025 (Part 39): 1991 Reff.2019
09	Chloride	mg/L	-	8.26	IS:3025 (Part 32): 1988 Reff.2019
		mg/L	_	4.78	APHA 23 <sup>rd</sup> ed. 2017,4500-SO42-C
10	Sulphate	mg/L	50	0.80	IS: 3025 (Part 34): 1988 Reff.2019
11_	Ammonical Nitrogen	mg/L	1.0	BDL	IS: 3025 (Part 43): 1992 Reff.2019
12	Phenolic Compound	mg/L	0.2	NIL	IS:3025 (Part 27): 1986 Reff.1998
13	Cyanides	mg/L	0.1	<0.03	APHA 23 <sup>rd</sup> ed. 2017,3500 Cr+6/B
14	Hexavelent Chromium		2.0	<0.03	IS: 3025 (Part 52): 2003 Reff.2019
15	Total Chromium	mg/L	4	BDL	IS:3025 (Part 29): 1986 Reff.2019
16	Sulphides	mg/L	2.0		APHA 23 <sup>rd</sup> ed. 2017,4500F <sup>-</sup> .D
17	Fluoride	mg/L	1.5	0.03	
18	Bio Assay Test	%	-	98	IS: 6582 (Part 2): 2001 Reff.2019

Note: BDL: Below detection Limit

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**AUTHORISED SIGNATORY:** 

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### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTO	MER:	CERTIFICATE NO:	175/11
M/s. Hindusthan Chemicals C GIDC Industrial Estate, P.O. Ol Tal.: Olpad, Dist.: Surat-39454	pad,	ISSUE DATE:	26/04/2021
SAMPLE DESCRIPTION:	Water Sample (Equalization Tank)	LAB ID:	65/4
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	11:15 am
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21041408
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021

**RESULT TABLE: TEST METHOD** SR. **RESULT** UNIT **PARAMETER** NO: IS: 3025 (Part 11): 1983 Reff.2017 6.02 pH Unit 01 pН IS: 3025 (Part 9): 1984 Reff. 2017 °C 32 **Temperature** 02 APHA 23<sup>rd</sup> ed.2017,2120-C 28 Hazen 03 Color IS: 3025 (Part 16): 1984 Reff. 2017 504 mg/L **Total Dissolved Solids** 04 IS: 3025 (Part 17): 1984 Reff. 2017 6.8 mg/L 05 **Suspended Solids** APHA 23<sup>rd</sup> ed. 2017,5220 B 74.2 mg/L COD 06 IS: 3025 (Part 44): 1993 Reff.2019 20.8 mg/L BOD 07 IS: 3025 (Part 39): 1991 Reff. 2019 2.0 mg/L Oil & Grease 08 IS: 3025 (Part 32): 1988 Reff 2019 32.80 mg/L Chloride 09 APHA 23<sup>rtl</sup> ed. 2017,4500-S042-C 26.62 mg/L Sulphate 10 IS: 3025 (Part 34): 1988 Reff. 2019 1.8 mg/L **Ammonical Nitrogen** 11 IS: 3025 (Part 43): 1992 Reff. 2019 BDL **Phenolic Compound** mg/L IS: 3025 (Part 27): 1986 Reff.1998 NIL mg/L **Cyanides** APHA 23<sup>rd</sup> ed. 2017,3500 Cr+6/B < 0.03 mg/L **Hexavelent Chromium** 14 IS: 3025 (Part 52): 2003 Reff. 2019 < 0.03 mg/L **Total Chromium** IS: 3025 (Part 29): 1986 Reff.2019 BDL mg/L **Sulphides** 16 APHA23<sup>rd</sup> ed.2017,4500F-.D 0.14 mg/L Fluoride

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOR M/s. Hindusthan Chemicals Co	ompany	CERTIFICATE NO:	175/12	
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	26/04/2021	
SAMPLE DESCRIPTION:	Water Sample (Final Outlet to ZLD)	LAB ID:	66/4	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter	
SAMPLING DATE:	14/04/2021	SAMPLING TIME:	11:34 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21041409	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	15/04/2021	SAMPLE RECEIVED TIME:	10:19 am	
TEST START DATE:	15/04/2021	TEST COMPLETION DATE:	26/04/2021	

**RESULT TABLE: PERMISSIBLE** SR. **TEST METHOD RESULT** UNIT **PARAMETER** LIMIT NO: IS:3025 (Part 11): 1983 Reff.2017 7.20 pH Unit 6.5 to 8.5 01 На IS: 3025 (Part 9): 1984 Reff.2017 °C 31 40 **Temperature** 02 IS: 3025 (Part 4): 1991 Reff.2017 22 100 Hazen Color 03 40 IS: 3025 (Part 16): 1984 Reff.2019 mg/L 04 **Total Dissolved Solids** IS: 3025 (Part 17): 1984 Reff.2017 mg/L 100 1.6 **Suspended Solids** 05 3.08 APHA 23<sup>rd</sup> ed. 2017,5220 B 250 mg/L COD 06 IS: 3025 (Part 44): 1993 Reff.2019 Nil 30 mg/L BOD 07 IS: 3025 (Part 39): 1991 Reff.2019 1.2 mg/L 10 Oil & Grease റമ IS:3025 (Part 32): 1988 Reff.2019 10.16 \_ Chloride mg/L 09 APHA 23<sup>rd</sup> ed. 2017,4500-S042-C 6.80 mg/L Sulphate 10 IS: 3025 (Part 34): 1988 Reff.2019 0.64 **Ammonical Nitrogen** 50 mg/L 11 IS: 3025 (Part 43): 1992 Reff.2019 **BDL** mg/L 1.0 **Phenolic Compound** 12 IS:3025 (Part 27): 1986 Reff.1998 NIL 0.2 mg/L **Cyanides** 13 APHA 23<sup>rd</sup> ed. 2017,3500 Cr+6/B < 0.03 0.1 mg/L **Hexavelent Chromium** 14 IS: 3025 (Part 52): 2003 Reff.2019 < 0.03 2.0 mg/L 15 **Total Chromium** IS:3025 (Part 29): 1986 Reff.2019 BDL 2.0 mg/L 16 **Sulphides** APHA 23<sup>rd</sup> ed. 2017,4500F-.D 0.01 mg/L 1.5 Fluoride IS: 6582 (Part 2): 2001 Reff.2019 96 **Bio Assay Test** 

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)



OH&S: 45001: 2018

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s, HINDUSTHAN CHEMICALS COMPANY GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		CERTIFICATE NO:	240/7
		ISSUE DATE:	07/06/2021
SAMPLE DESCRIPTION:	Water Sample (Equalization Tank)	LAB ID:	119/5
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	11:15 am
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052812
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	07/06/2021

RESULT TABLE:

SR. NO:	PARAMETER	UNIT	RESULT	TEST METHOD
01	pH	pH Unit	6.18	IS: 3025 (Part 11): 1983 Reff.2017
02	Temperature	°C	34	IS: 3025 (Part 9): 1984 Reff. 2017
03	Color	Hazen	29	APHA 23 <sup>rd</sup> ed.2017,2120-C
04	Total Dissolved Solids	mg/L	478	IS: 3025 (Part 16): 1984 Reff. 2017
05	Suspended Solids	mg/L	4.7	IS: 3025 (Part 17): 1984 Reff. 2017
06	Chemical Oxygen Demand	mg/L	66.2	APHA 23 <sup>rd</sup> ed. 2017,5220 B
07	Biochemical Oxygen Demand (3 days at 27°C)	mg/L	<b>17.7</b>	IS: 3025 (Part 44): 1993 Reff.2019
08	Oil & Grease	mg/L	1.8	IS: 3025 (Part 39): 1991 Reff. 2019
09	Chloride	mg/L	31.07	IS: 3025 (Part 32): 1988 Reff 2019
10	Sulphate	mg/L	24.05	APHA 23 <sup>rd</sup> ed. 2017,4500-S042-C
11	Ammonical Nitrogen	mg/L	1.4	IS: 3025 (Part 34): 1988 Reff. 2019
12	Phenolic Compound	mg/L	BDL	IS: 3025 (Part 43): 1992 Reff. 2019
13	Cyanides	mg/L	NIL	IS: 3025 (Part 27): 1986 Reff.1998
14	Hexavelent Chromium	mg/L	<0.03	APHA 23 <sup>rd</sup> ed. 2017,3500 Cr+6/B
15	Total Chromium	mg/L	<0.03	IS: 3025 (Part 52): 2003 Reff. 2019
16	Sulphides	mg/L	BDL	IS: 3025 (Part 29): 1986 Reff.2019
17	Fluoride	mg/L	0.18	APHA23 <sup>rd</sup> ed.2017,4500FD

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** (SURESH MORADIA)



14001

OH&S 45001 2018

2015

## EARTH CARE

Ph. 0261-2631349 Teletar: 0261-2630097 Ort M.: 9317778286226 Lab M.: 4017284075795



### POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

31-32 Moradia House, Shiv Ashish Industrial Society-II, Opp. S.M.C. Community Hall, B/H. Raj Carrying Cargo Pvt. Ltd., South Zone Road, Nr. Chosath Jogani Mata Mandir, Udhna Magdalla Road, Surat - 394-210 www.earthcare.org.in / info@earthcare.org.in / info@earthcare.org

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTON M/s. HINDUSTHAN CHEMICAL	COMPANY	CERTIFICATE NO:	240/8	
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540		ISSUE DATE:	07/06/2021	
SAMPLE DESCRIPTION:	Water Sample (Final Outlet to ZLD)	LAB ID:	120/5	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	5 Liter	
SAMPLING DATE:	28/05/2021	SAMPLING TIME:	11:34 am	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21052813	
SAMPLING METHOD:	EESPL/SOP/WATER/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	29/05/2021	SAMPLE RECEIVED TIME:	10:47 am	
TEST START DATE:	29/05/2021	TEST COMPLETION DATE:	07/06/2021	

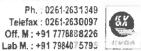
**RESULT TABLE:** PERMISSIBLE SR. UNIT RESULT TEST METHOD **PARAMETER** LIMIT NO: 6.5 to 8.5 7.26 IS:3025 (Part 11): 1983 Reff.2017 pH Unit рH 01 °C 40 30 IS: 3025 (Part 9): 1984 Reff.2017 02 Temperature 18 IS: 3025 (Part 4): 1991 Reff.2017 Hazen 100 03 Color 32 IS: 3025 (Part 16): 1984 Reff.2019 **Total Dissolved Solids** mg/L 04 100 1.2 IS: 3025 (Part 17): 1984 Reff.2017 mg/L 05 **Suspended Solids** APHA 23<sup>rd</sup> ed. 2017,5220 B 06 **Chemical Oxygen Demand** mg/L 250 2.34 **Biochemical Oxygen Demand** IS: 3025 (Part 44): 1993 Reff.2019 Nil 07 mg/L 30 (3 days at 27°C) IS: 3025 (Part 39): 1991 Reff.2019 0.98 Oil & Grease mg/L 10 08 IS:3025 (Part 32): 1988 Reff.2019 9.17 09 Chloride mg/L \_\_\_\_\_\_ APHA 23<sup>rd</sup> ed. 2017,4500-SO42-C 5.56 10 Sulphate mg/L IS: 3025 (Part 34): 1988 Reff.2019 0.73 mg/L 50 **Ammonical Nitrogen** 11 IS: 3025 (Part 43): 1992 Reff.2019 **Phenolic Compound** mg/L 1.0 **BDL** 12 IS:3025 (Part 27): 1986 Reff.1998 NIL 0.2 **Cyanides** mg/L 13 APHA 23rd ed. 2017,3500 Cr+6/B 0.1 < 0.03 **Hexavelent Chromium** mg/L 14 2.0 <0.03 IS: 3025 (Part 52): 2003 Reff.2019 mg/L 15 **Total Chromium** IS:3025 (Part 29): 1986 Reff.2019 2.0 BDL **Sulphides** mg/L 16 APHA 23<sup>rd</sup> ed. 2017,4500F-.D 0.02 17 Fluoride mg/L 1.5 97 IS: 6582 (Part 2): 2001 Reff.2019 **Bio Assay Test** %

Note: BDL: Below detection Limit

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY: (SURESH MORADIA)

## ANNEXURE -15





ISO :9001 : 2015 ISO :14001 : 2015 OH&S: 45001 : 2018

## EARTH CARE

### POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,		CERTIFICATE NO:	505/17 26/12/2020	
Tal.: Olpad, Dist.: Surat-3945				
SAMPLE DESCRIPTION:	Near NaCN Packing Area	LAB ID:	82/12	
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Filter Paper	
SAMPLING DATE:	23/12/2020	SAMPLING TIME:	10:00 am To 06:04 pr	
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL20122308	
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed	
SAMPLE RECEIVED DATE:	24/12/2020	SAMPLE RECEIVED TIME:	10:17 am	
TEST START DATE: 24/12/2020		TEST COMPLETION DATE:	25/12/2020	

AMBIENT TEMPRATURE:	MINIMUM: 27 °C	MAXIMUM: 33 °C
RELATIVE HUMIDITY:	MINIMUM: 26 %	MAXIMUM: 37 %
WIND DIRECTION:	SE	WIND SPEED: 10.0 Km/h

ı		RESULT TABLE:				
ı	SR. NO:	PARAMETER	UNIT	RESULT	TEST METHOD	
١	01	Inhalable Dust	mg/m <sup>3</sup>	0.316	IS: 5182 (Part 23): 2006 Reff.2017	

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

Stroodia

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

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PREPARED BY: (TECHNICAL MANAGER)



ISO :9001 : 2615 ISO :14001 : 2015 Ori&S: 45001: 2018

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Page 17 of 18

M/s. Hind	NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,			CERTIFICATE NO:  ISSUE DATE:		51/17
Tal.: Olpad, Dist.: Surat-394540						03/02/2021
SAMPLE [	DESCRIPTION:	Near NaCN Pac	king Area	LAB ID:	10 To 10 To	78/1
SAMPLE (	COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.		SAMPLE QUANTITY:		Filter Paper
SAMPLIN	G DATE:	23/01/2021		SAMPLING TIM	IE:	10:12 am To 06:15 pm
PROTOCO	DL(PURPOSE):	Monthly Monitoring		SAMPLE ID NO:		EESPL21012314
SAMPLIN	G METHOD:	EESPL/SOP/AIR/01		PACKING/SEAL:		Sealed
SAMPLE I	RECEIVED DATE:	25/01/2021		SAMPLE RECEIVED TIME:		10:07 am
TEST STA	RT DATE:	25/01/2021		TEST COMPLETION DATE:		27/01/2021
AMBIENT	TEMPRATURE:	MINIMUN	л: <b>28</b> °С		MAXIMU	M: 30 °C
RELATIVE	HUMIDITY:	MINIMUN	/I: 30 %	MAXIMUN		The San Commission of the Comm
WIND DIF	RECTION:	EAST		<u> </u>	WIND SP	EED: 11.0 Km/h
			RESULT TA	BLE:		
SR. NO:	PARAMETE	2	UNIT	RESULT		TEST METHOD
01	01 Inhalable Dust mg/m <sup>3</sup>		mg/m <sup>3</sup>	0.274	IS: 5182 (	Part 23): 2006 Reff.2017

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



ISO :9001 : 2015 ISO :14001 : 2015 OH&S: 45001: 2018

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Page 17 of 18

M/s. Hin	NAME & ADDRESS OF CUSTOMER:  M/s. Hindusthan Chemicals Company  GIDC Industrial Estate, P.O. Olpad,			CERTIFICATE NO:		87/17	
Tal.: Olpad, Dist.: Surat-394540				ISSUE DATE:		24/02/2021	
SAMPLE (	DESCRIPTION:	Near NaCN F	acking Area	LAB ID:		25/2	
SAMPLE (	COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.		SAMPLE QUAN	ITITY:	Filter Paper	
SAMPLIN	G DATE:	03/02/2021		SAMPLING TIN	1E:	10:37 am To 06:37 pm	
PROTOCO	DL(PURPOSE):	Monthly Monitoring		SAMPLE ID NO:		EESPL21020314	
SAMPLIN	G METHOD:	EESPL/SOP/AIR/01		PACKING/SEAL:		Sealed	
SAMPLE F	RECEIVED DATE:	04/02/2021		SAMPLE RECEIVED TIME:		10:21 am	
TEST STA	RT DATE:	04/02/2021		TEST COMPLETION DATE:		05/02/2021	
AMBIENT TEMPRATURE: MINIMUM: 26 °C		JM: <b>26 °C</b>		MAXIMUM: 34 °C			
RELATIVE	HUMIDITY:	MINIM	JM: 18 %		MAXIMU	M: 34 %	
WIND DIF	RECTION:	NW			WIND SPEED: 14.4 Km/h		
			RESULT TAI	BLE:			
SR. NO:	R. NO: PARAMETER		UNIT	RESULT		TEST METHOD	
01	1 Inhalable Dust mg/m <sup>3</sup>		0.326	IS: 5182 (Part 23): 2006 Reff.2017			

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



OH&S: 45001: 2018

# EARTH CARE



### POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

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#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company		CERTIFICATE NO:	136/17
GIDC Industrial Estate, P.O. Ol Tal.: Olpad, Dist.: Surat-39454	•	ISSUE DATE:	30/03/2021
SAMPLE DESCRIPTION:	Near NaCN Packing Area	LAB ID:	78/3
SAMPLE COLLECTED BY:	Earth Care Enviro Solutions Pvt. Ltd.	SAMPLE QUANTITY:	Filter Paper
SAMPLING DATE:	22/03/2021	SAMPLING TIME:	10:10 am To 06:10 pm
PROTOCOL(PURPOSE):	Monthly Monitoring	SAMPLE ID NO:	EESPL21032207
SAMPLING METHOD:	EESPL/SOP/AIR/01	PACKING/SEAL:	Sealed
SAMPLE RECEIVED DATE:	23/03/2021	SAMPLE RECEIVED TIME:	10:34 am
TEST START DATE:	23/03/2021	TEST COMPLETION DATE:	25/03/2021

AMBIENT TEMPERATURE:	MINIMUM: 25 °C	MAXIMUM: 37 °C
RELATIVE HUMIDITY:	MINIMUM: 19 %	MAXIMUM: 76 %
WIND DIRECTION:	WEST	WIND SPEED: 18.0 Km/h

		KESULI TABI	<u>. E.</u>	
SR. NO:	PARAMETER	UNIT	RESULT	TEST METHOD
01	Inhalable Dust	mg/m <sup>3</sup>	0.426	IS: 5182 (Part 23): 2006 Reff.2017

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

AUTHORISED SIGNATORY:

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



OH&S: 45001 2018

## EARTH CARE



### POLLUTION CONTROL CONSULTANTS, AUDITOR & ENGINEERS

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Page 17 of 18

#### TEST REPORT/CERTIFICATE

NAME & ADDRESS OF CUSTOMER: M/s. Hindusthan Chemicals Company				CERTIFICATE NO:		175/17	
	ustrial Estate, P.O. Ol d, Dist.: Surat-39454	• •	ISSUE DATE:		26/04/2021		
SAMPLE DESCRIPTION:		Near NaCN Packing Area		LAB ID:		71/4	
SAMPLE COLLECTED BY:		Earth Care Enviro Solutions Pvt. Ltd.		SAMPLE QUANTITY:		Filter Paper	
SAMPLING DATE:		14/04/2021		SAMPLING TIME:		10:00 am To 06:00 pm	
PROTOCOL(PURPOSE):		Monthly Monitoring		SAMPLE ID NO:		EESPL21041414	
SAMPLING METHOD:		EESPL/SOP/AIR/01		PACKING/SEAL:		Sealed	
SAMPLE RECEIVED DATE:		15/04/2021		SAMPLE RECEIVED TIME:		10:19 am	
TEST START DATE:		15/04/2021		TEST COMPLETION DATE:		16/04/2021	
AMBIENT TEMPERATURE: MINIMUN			M: 28 °C	1: 28 °C MAXIM		UM: <b>32</b> <sup>0</sup> C	
99424994444	HUMIDITY:	4.00	MINIMUM: 39 %		MAXIMU		
WIND DIRECTION: NW						EED: 10.8 Km/h	
	r		RESULT TA	BLE:	7		
SR. NO:	PARAN	NETER UNIT		RESULT		TEST METHOD	
01	01 Inhalable Dust mg/m <sup>3</sup>		mg/m <sup>3</sup>	0.392 IS: 5182 (Part		Part 23): 2006 Reff.2017	

For EARTH CARE ENVIRO SOLUTIONS PVT. LTD.

**AUTHORISED SIGNATORY:** 

(SURESH MORADIA)

PREPARED BY:

(TECHNICAL MANAGER)



(SURESH MORADIA)

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(TECHNICAL MANAGER)

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M/s. HIN	NAME & ADDRESS OF CUSTOMER:  M/s. HINDUSTHAN CHEMICALS COMPANY				NO:	240/13							
GIDC Industrial Estate, P.O. Olpad, Tal.: Olpad, Dist.: Surat-394540				ISSUE DATE:		07/06/2021							
SAMPLE DESCRIPTION:  SAMPLE COLLECTED BY:  SAMPLING DATE:  PROTOCOL(PURPOSE):		Near NaCN Packing Area Earth Care Enviro Solutions Pvt. Ltd. 28/05/2021 Monthly Monitoring		SAMPLE QUANTITY:  SAMPLING TIME:  SAMPLE ID NO:		125/5 Filter Paper 10:00 am To 06:00 pr EESPL21052818							
							SAMPLIN	G METHOD:	EESPL/SOP/AIR/01		PACKING/SEAL:		Sealed
							SAMPLE RECEIVED DATE: TEST START DATE:		29/05/2021 29/05/2021		SAMPLE RECEIVED TIME: TEST COMPLETION DATE:		10:47 am
													07/06/2021
AAADICAD	TEMPERATURE	T a state in											
AMBIENT TEMPERATURE:		MINIMUM: 28 °C				IM: 32 °C							
RELATIVE HUMIDITY: WIND DIRECTION:		MINIMUM: 39 %		100	MAXIMUM: 52 %								
	THE STATE OF THE S	1440	RESULT TA	Q) E.	WIND SP	EED: 10.8 Km/h							
SR. NO:	SR. NO: PARAMETER		UNIT	RESULT	T	TEST METHOD							
01	Inhalable Dust		mg/m³	0.238	IS: 5182 (Part 23): 2006 Reff.2								

### Information for Environment Clearance of 13th March 2020

### THE TIMES OF INDIA



### **GUJARAT SAMACHAR FRIDAY, MARCH 20, 2020**



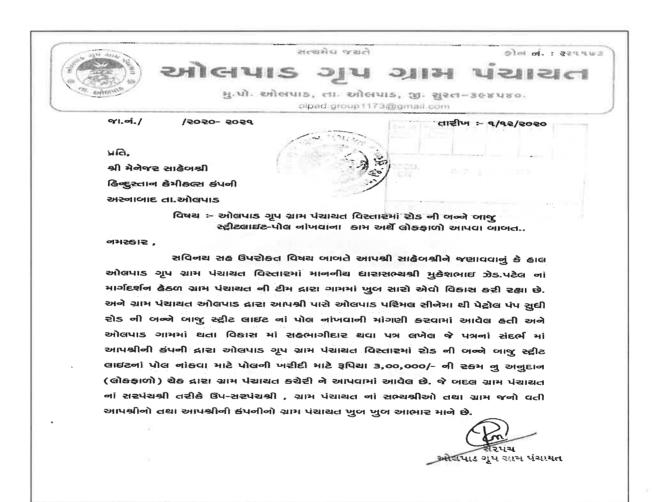
### Annexure-17

### LIST OF HAZARDOUS CHEMICAL STORE & USED

Sr. No.	Hazardous Chemical List	Unit	Received /Store	Used/Consumption		
1	Ammonia	M.T	2019.625	2023.5		
2	Aniline	M.T	0	0		
3	Benzaldehyde	M.T	501.38	529.98		
4	Liquid Cl2 gas	M.T	0	0		
5	Caustic Potash Lye	D.M.T	43.757	43.757		
6	Caustic Soda Lye	D.M.T	2344.076	2423.318		
7	нсі	M.T	18.35	14		
8	H2SO4 98%	M.T	1061.25	1046.37		
9	MPBAD	M.T	94.95	94.275		
10	Cyclohexanone Commercial	M.T	11.4	33.77		
11	Pentanone	M.T	16	16.2		
12	Acitic Acid	Kg	1000	1600		
13	Toluene	Ltr	8140	6710		
14	Industrial Solvent	M.T	2964.625	6120		
15	H2O2	Kg	0	500		
16	Phosphoric Acid	M.T	9000	9400		
17	Sodium Hypochloride	M.T	16	15.8		

#### **Annexure-18**

#### **CER Activities Letter**



### **EC Intimation to Panchayat**



F.65:TECH:HCC:2020-21/

The Sarpanch, Olpad Group Gram Panchayat, Olpad, Dist. Surat 394540

Dear Sir.

We are hereby submitting letter No.F.No.J-11-11/466/2011-IA II(I) dtd.13.03.2020 received from Ministry of Environment & Forest, and Climate Change (IA-IISection) for your information.

Thanking you,

Yours faithfully, For Hindusthan Chemicals Company

(Narinder Rathore)

- Zum

Dy. General Manager (Personnel)

Encl: a/a.

H.O.65, FREE PRESS HOUSE, 215 FREE PRESS JOURNAL ROAD, NARIMAN POINT, MUMBAI 400021. JNDIA.

TEL.: 91-22-22027947 / 61510999, TELEFAX: 91-22-22029430 E-MAIL; info@hoc-cyanides.com
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