

**ENVIRONMENT  
CLEARANCE FORM-I  
FOR  
SYNTHETIC ORGANIC CHEMICAL  
OF  
M/s. J.R. CORPORATION**

**Plot No.: B/1085,  
Lamdapura Road, Vill: Manjusar,  
Tal: Savli, Dist: Vadodara, Gujarat**

**E- mail: [nirmal501@yahoo.com](mailto:nirmal501@yahoo.com)**

**Prepared by:**

**Jyoti Om Chemical Research Center Pvt. Ltd.  
Shed No. K- 1, 7705/2-4, GIDC Estate,  
Ankleshwar- 393002, Dist: Bharuch, Gujarat.  
Phone: (02646)220293, Fax: (02646) 239454  
E mail: [info@jyotiom.com](mailto:info@jyotiom.com)**

**BASIC INFORMATION**

Sr. No.	Item	Details
1.	Name of the Project	M/s. J.R. Corporation
2.	Sr. No in the schedule	5(f)
3.	Proposed capacity/area/length/tonnage to be handled/command area/ lease area / numbers of wells to be drilled	Existing Production Capacity- 2.6 MT/ Month Proposed Production Capacity- 252 MT/ Month Details of Production Capacity are given as <b>Annexure- II.</b>
4.	New/ Expansion/ Modernization	Expansion
5.	Existing Capacity/ Area etc.	2.6 MT/Month
6.	Category of the project i.e. 'A' or 'B'	Category A
7.	Does it attract the general condition? If yes, please specify	No
8.	Does it attract the specific condition? If yes, please specify	No
9.	<ul style="list-style-type: none"> <li>◆ Location</li> <li>◆ Plot/ Survey/Khasra No. Village</li> <li>◆ Tehsil</li> <li>◆ District</li> <li>◆ State</li> </ul>	Lamdapura Road B/1085 Vill. Manjusar Ta. Savli Dist. Vadodara-391770 Gujarat
10.	Nearest Railway station / Airport along with distance in Kms.	Vadodara- 17 Km Air port Vadodara-14.37 Km
11.	Nearest Town, City, District Headquarters along with distance in Kms.	Savli- 8 Km Vadodara- 20 Km
12.	Village Panchayat, Zilla Parishad, Municipal Corporation, Local Body (complete postal addresses with telephone numbers to be given).	Post Office: Manjusar Tehsil : Savali Dist.: Vadodara
13.	Name of the Applicant	Mr. Nirmal Chaudhary
14.	Registered Address	15-17, Akash-1, 2 <sup>nd</sup> Floor, Near Narayan Garden, Gotri - Laxmipura Road, Vadodara- 390021
15.	Address for Correspondence: Name:	Mr. Nirmal Chaudhary

Sr. No.	Item	Details
	<b>Designation</b> <b>(Owner/Partner/CEO):</b> <b>Address:</b>  <b>Pin Code:</b> <b>E- mail:</b> <b>Telephone No.:</b> <b>Fax No. :</b>	(CEO) 15-17, Akash-1, 2 <sup>nd</sup> Floor, Near Narayan Garden, Gotri - Laxmipura Road, Vadodara 390021 <a href="mailto:nirmal501@yahoo.com">nirmal501@yahoo.com</a> +91 8140411000
16.	<b>Details of alternative sites examined, if any. Location of these sites should be known on the Topo Sheet.</b>	No alternative site examined.
17.	<b>Interlinked Projects</b>	Not Applicable.
18.	<b>Whether separate application of the interlinked project has been submitted?</b>	Not Applicable.
19.	<b>If yes, Date of submission</b>	Not Applicable.
20.	<b>If no, Reason</b>	Not Applicable.
21.	<b>Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given.</b> <b>The Forest (Conservation) Act, 1980?</b> <b>The Wildlife (Protection) Act, 1972?</b> <b>The C.R.Z Notification, 1991?</b>	Not Applicable.
22.	<b>Whether there is any Government Order/ Policy relevant/ relating to the site?</b>	Not Applicable.
23.	<b>Forest Land involved (Hectares)</b>	Not Applicable.
24.	<b>Whether there is any litigation pending against the project and/ or land in which the project is proposed to be set up?</b> <b>Name of the Court</b> <b>Case No. Orders/ Directions of the Court, if any and its relevance to the proposed project</b>	Not Applicable.
<b>Form-I</b>		

<b>(I) ACTIVITY</b>			
<b>1.</b>	<b>Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc)</b>		
<b>Sr. No.</b>	<b>Information / checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data.</b>
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan.)	Yes	Existing plot will be utilized for expansion.
1.2	Clearance of existing land, vegetation and buildings?	Yes	Existing plot will be utilized for expansion.
1.3	Creation of new land uses.	Yes	Existing plot will be utilized for expansion activity.
1.4	Pre-construction investigations e.g. bore house, soil testing?	Yes	Already done for the existing unit.
1.5	Construction works?	Yes	New 500 sq. meter construction will be carried out.
1.6	Demolition works?	No	-
1.7	Temporary sites used for construction works or housing of construction workers?	No	Local construction workers will be hired.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations.	Yes	Plant layout and site plan are attached as <b>Annexure- IV</b> and <b>Annexure-V</b> .
1.9	Underground works including mining or tunneling?	No	No such underground activity is involved.
1.10	Reclamation works?	No	Not Applicable
1.11	Dredging?	No	Not Applicable
1.12	Offshore structures?	No	Not Applicable
1.13	Production and manufacturing processes?	Yes	Details of Production capacity is attached as <b>Annexure-II</b> and details of manufacturing process are attached as <b>Annexure-VI</b> .
1.14	Facilities for storage of goods or materials?	Yes	Proper facility for storage of raw material and finished goods is provided in the unit. It is mentioned in Plant layout.
1.15	Facilities for treatment or disposal of solid waste or	Yes	Details of facilities for treatment of liquid effluent are given in <b>Annexure-VII</b> .

	liquid effluents?		Hazardous waste details are given in <b>Annexure -VIII.</b>
1.16	Facilities for long term housing of operational workers?	No	Plot will be utilized for industrial purpose only.
1.17	New road, rail or sea traffic during construction or operation?	No	This is a private land. However, in nearby areas several industries do exist. Road infrastructure is well developed.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No.	Not applicable.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not applicable.
1.20	New or diverted transmission lines or pipelines?	No	There will not be any said work at the site.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not Applicable.
1.22	Stream crossing?	No	No such activity will be involved in the expansion project.
1.23	Abstraction or transfers of water form ground or surface waters?	Yes	The water will be taken from Bore-well. Necessary permission will be obtained.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	Not applicable.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	There will be routine movement of construction material, labor and raw material to the site by road trucks.
1.26	Long-term dismantling or decommissioning or restoration works?	No	The proposed activity will be carried out in existing premises.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Construction debris will be used for foundation and road making within the plot.
1.28	Influx of people to an area in either temporarily or permanently?	No	Local man power will be employed.

1.29	Introduction of alien species?	No	No such activity will be associated with the expansion project.
1.30	Loss of native species or genetic diversity?	No	No such activity will be involved which can leads to loss of native species or genetic diversity.
1.31	Any other actions?	No	Not required other action.
<b>2</b>	<b>Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):</b>		
<b>Sr. No.</b>	<b>Information / Checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities / rates, wherever possible) with source of information data.</b>
2.1	Land especially undeveloped or agricultural land (ha)	No	Existing plot will be utilized for proposed activity.
2.2	Water (expected source & competing users) unit: KL/Day	Yes	Details of water consumption and waste water generation are attached as <b>Annexure-IX.</b>
2.3	Minerals (MT)	No	Not Applicable.
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	No	Construction materials like steel, cement, crushed stones and sand required for the project shall be purchased from the local market of the region.
2.5	Forests and timber (source - MT)	No	Not used.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT),energy (MW)	Yes	Details of fuel consumption table are attached as <b>Annexure-X.</b>
2.7	Any other natural resources (use appropriate standard units)	No	No other natural resources will be used.
<b>3</b>	<b>Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.</b>		
<b>Sr. No.</b>	<b>Information / Checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities / rates, wherever possible) with source of information data.</b>
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes.	List of hazardous raw material is given in <b>Annexure-XI.</b>
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not Applicable. Not applicable.
3.3	Affect the welfare of people	Yes	New employment will be formed.

	e.g. by changing living conditions?		
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	There will be no such effects due to the expansion project.
3.5	Any other causes.	No	None.
<b>4.</b>	<b>Production of solid wastes during construction or operation or decommissioning (MT/month).</b>		
<b>Sr. No.</b>	<b>Information / Checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities / rates, wherever possible) with source of information data.</b>
4.1	Spoil, overburden or mine waste.	No	This is a pharma intermediate industry.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	It will be disposed as per MSW guidelines.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Hazardous waste details are given in <b>Annexure-XI.</b>
4.4	Other industrial process wastes	Yes	Other industrial process waste details are given in <b>Annexure-XI.</b>
4.5	Surplus product	No	--
4.6	Sewage sludge or other sludge from effluent treatment.	Yes	ETP drawing attached as <b>Annexure-VII.</b>
4.7	Construction or demolition wastes	No	Any waste will be utilized in road construction.
4.8	Redundant machinery or equipment.	No	All equipment will be reused for proposed activity.
4.9	Contaminated soils or other materials.	No	There will be no contamination to soils due to proposed activity.
4.10	Agricultural waste.	No	Not applicable.
4.11	Other solid wastes.	No	Nil
<b>5.</b>	<b>Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/Hr)</b>		
<b>Sr. No.</b>	<b>Information / Checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities / rates, wherever possible) with source of information data.</b>
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Details of flue gas emissions are attached as <b>Annexure-X.</b>
5.2	Emissions from production processes.	Yes	Detail of process gas emissions is attached as <b>Annexure-X.</b>
5.3	Emissions from materials handling including storage or transport.	Yes	Details are given in <b>Annexure -X.</b>
5.4	Emissions from construction activities including plant and	No	Emissions from the cement mixers will be controlled.

	equipment		
5.5	Dust or odors from handling of materials including construction materials, sewage and waste.	No	All the raw materials and solvents will be handled in closed conditions.
5.6	Emissions from incineration of waste.	No	No any emission from Incinerable waste because we will send incinerable waste to TSDF site for incineration purpose.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not applicable, since burning of waste will not be practiced.
5.8	Emission from any other sources.	No	No other emissions are observed.
<b>6.</b>	<b>Generation of Noise and Vibration, and Emissions of Light and Heat:</b>		
<b>Sr. No.</b>	<b>Information / Checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities / rates, wherever possible) with source of information data.</b>
6.1	From operation of equipment e.g. engines, Ventilation plant, Crushers.	Yes	Results of noise level monitoring will be carried out during the operation work.
6.2	From industrial or similar processes.	No	Noise proof equipments are used for industrial processes.
6.3	From construction or demolition.	No	--
6.4	From blasting or piling.	No	--
6.5	From construction or operational traffic.	No	--
6.6	From lighting or cooling systems.	No	--
6.7	From any other sources.	No	--
<b>7.</b>	<b>Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:</b>		
<b>Sr. No.</b>	<b>Information / Checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities / rates, wherever possible) with source of information data.</b>
7.1	From handling, storage, use or spillage of hazardous materials.	Yes	All the hazardous chemicals received will be stored in tanks/bags. Adequate measures will be taken during handling & use. Spillages will be cleaned with appropriate method and the waste generated will be disposed off as hazardous waste. PPE's will be used by the operators when handling hazardous chemicals.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and	Yes	Sewage effluent will be disposed into soak pit system. Industrial effluent will be disposed into

	place of discharge)		CETP. Necessary membership will be obtained.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Proper air pollution control measures will be taken and thus their deposition on land or water will not be expected.
7.4	From any other sources.	No	No other sources will be there.
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	There will not be any long term build up of pollutants in the environment from these sources.
<b>8.</b>	<b>Risk of accidents during construction or operation of the Project, which could affect human health or the environment.</b>		
<b>Sr. No.</b>	<b>Information / Checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities / rates, wherever possible) with source of information data.</b>
8.1	From explosions, spillages, fires etc. from storage, handling, use or production of hazardous substances.	Yes	Risk assessment will be carried out.
8.2	From any other causes	No	--
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	Structures will be made earthquake proof and no possibility of flood is identified.
<b>9.</b>	<b>Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality.</b>		
<b>Sr. No.</b>	<b>Information / Checklist conformation.</b>	<b>Yes / No.</b>	<b>Details thereof (with approximate quantities / rates, wherever possible) with source of information data.</b>
9.1	Lead to development of supporting localities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> <li>• Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)</li> <li>• housing development</li> <li>• extractive industries</li> <li>• supply industries</li> <li>• other</li> </ul>	Yes	Details will be provided in EIA report.
9.2	Lead to after – use of the site, which could have an impact on the environment.	No	--

9.3	Set a precedent for later developments.	No	--
9.4	Have a cumulative effect due to proximity to other existing or planned projects with similar effects.	No	--
<b>(II) ENVIRONMENTAL SENSITIVITY.</b>			
<b>Sr. No.</b>	<b>Area.</b>	<b>Name / Identity</b>	<b>Aerial distance (within 15 km.) Proposed project location boundary.</b>
1.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	No protected area within 10 km from the proposed project boundary.
2.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	No	--
3.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration.	No	--
4.	Inland, coastal, marine or underground waters	No	--
5.	State, National boundaries.	No	--
6.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	No	--
7.	Defense installations.	No	--
8.	Densely populated or built – up area.	Yes	Manjusar Approximate-2.66 Km
9.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	<b>Hospital-</b> Approximate 12.5 Km Satyam hospital, Chhani road, Vadodara  <b>School-</b> Approximate- 2.54 km Nutan Vidhyalaya, Savli road, Vadodara
10.	Areas containing important, high quality or scare resources (ground water, surface resources, forestry, agriculture, fisheries,	No	--

	tourism, minerals)		
11.	Areas already subjected to pollution or Environmental damage. (those where existing legal environmental standards are exceeded)	No	Environment standards of existing activity are within limits.
12.	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	Not Applicable.

**“ I hereby given undertaking that the data and information given in the application and enclosures are true to my best knowledge and belief and I am aware that if any part of the data and information submitted is found to false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost”.**

**Date:**

**Place:**

**Signature of the Applicant**  
**With full Name and Full address**  
**(Project Proponent/ Authorized Signatory)**

**NOTE:**

- 1. The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z (at the stage of TOR) and the recommendations of the State Coastal Zone Management Authority (at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z Notification, 1991 for the activities to be located in the CRZ.**
- 2. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and there commendations or comments of the Chief Wildlife Warden thereon (at the stage of EC).**
- 3. All correspondence with the Ministry of Environment & Forest including submission of application for TOR/Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory for the specific project.**

**ANNEXURE- I**

**Valid CCA Copy**



**GUJARAT POLLUTION CONTROL BOARD**

PARYAVARAN BHAVAN  
Sector-10-A, Gandhinagar-382 021,  
Website : www.gpcb.gov.in

By R.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) Act-1981 and Authorization under rule 3(c) & 5(5) of the Hazardous Waste (Management and Handling and Trans boundary Movement) Rules '2008 framed under the E (P) Act-1986. This Board is empowered to grant CC&A.

And whereas Board has received consolidated consent application vide No.90202 Dated: 09/02/2015 for the consolidated consent and authorization (CC & A- Renewal) of this Board under the provisions / rules of the aforesaid Acts. Consent & Authorization is hereby granted as under.

**CONSENT AND AUTHORIZATION:**

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

To,  
M/s. J.R. Corporation,  
(Sadguru Organics Pvt. Ltd)  
Plot No. 1085/B, Lamdapura Road,  
Manjusar, Tal: Savli,  
Dist: Vadodara- 391775.

1. Consent Order No. AWH: 69376. Date of issue: 22/02/2015.
2. The consent shall be valid up to 10/02/2020 for the use of outlet for the discharge of treated effluent & air emission and to operate industrial plant for manufacture of the following items / products:

Sr. No.	Product	Quantity
1.	Cellulose Acetate Phthalate-I Plusup Grade(CAP)	1.5MT/Month
2.	Hydroxypropyl Methyl Cellulose Phthalate USP Grade(HPMCP)	1.1MT/Month
3.	Crude Sodium Acetate (By Production)	8MT/Month

**3. CONDITIONS UNDER WATER ACT:**

- 3.1 The quantity of trade effluent from the factory shall not exceed nil.
- 3.2 The quantity the domestic waste water (sewage) shall not exceed 350Lit/day.
- 3.3 Domestic effluent shall be disposed off through septic tank/soak pit system.

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

- 4.1 The following shall be used as fuel in Boiler.

Sr. No.	Fuel	Quantity
1.	Fire Wood	1.5Lit/Day

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

GPCB ID: 22072

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

- 4.2.1 The flue gas emission through stack attached to boiler/furnace/heater shall conform to the following standards.

Stack No.	Stack attached to	Stack height	Parameter	Permissible limit
1.	Boiler	11 meter	Particulate Matter	150 mg/NM <sup>3</sup>
			SO <sub>2</sub>	100 ppm
			NOx	50 ppm

- 4.2.2 There shall be no generation of process emission from the manufacturing process and other ancillary industrial operations.
- 4.2.3 Stack monitoring facilities like port hole, platform/ladder etc., shall be provided with stacks/vents Chimney in order to facilitate sampling of gases being emitted into the atmosphere.
- 4.2.4 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.

Parameter	Permissible Limit Annual	Permissible Limit 24 Hrs. Average
Particulate matter- <sub>10</sub> [PM10]	60 Microgram /NM <sup>3</sup>	100 Microgram /NM <sup>3</sup>
Particulate matter- <sub>2.5</sub> [PM2.5]	40 Microgram /NM <sup>3</sup>	60 Microgram /NM <sup>3</sup>
Oxides of Sulphur	50 Microgram /NM <sup>3</sup>	80 Microgram /NM <sup>3</sup>
Oxides of Nitrogen	40 Microgram /NM <sup>3</sup>	80 Microgram /NM <sup>3</sup>

- 4.3 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 75 dB(A) during day time and 70 dB(A) during night time. Daytime is reckoned in between 6 a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
5. GENERAL CONDITIONS:
- 5.1 Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
- 5.2 Applicant shall also comply with the general conditions given in annexure- I.
6. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 5 (4)).
- 6.1 Number of authorization: AWH-69376. Date of issue: 22/02/2015.  
M/s. J.R. Corporation is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at Plot No. 1085/B, Lamdapura Road, Manjusar, Tal: Savli, Dist: Vadodara-391775.

GPCB ID: 22072

2



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN  
Sector-10-A, Gandhinagar-382 021.  
Website : www.gpcb.gov.in

Sr. No.	Waste	Quantity	Schedule	Facility
1.	Crude Sodium Acetate	96MT/year	28.4	Collection storage, Transportation Disposal By incineration.
2.	Spent Catalyst	Whatever generated	28.2	Collection storage, Transportation Disposal by selling
3.	Discarded containers	100Nos/Year	33.3	Collection, Storage, and Decontamination within factory premises.

6.3 The authorization is granted to operate a facility for collection, storage, transportation and disposal of Hazardous wastes as above.

6.4 The authorization shall be in force for a period up to 10/02/2020.

6.5 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.

6.6 TERMS AND CONDITIONS OF AUTHORISATION:-

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

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

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

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

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

6.6.6 An application for the renewal of an authorization shall be made as laid down in rule 5 (6) (ii).

6.6.7 Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Court's order in W.P. No.657 of 1995 dated 14<sup>th</sup> October 2008.

6.6.8 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 waste water and air emissions and solid hazardous waste generated within the factory premises.

6.6.9 Industry shall submit annual report within 15 days and subsequently by 31<sup>st</sup> January every year.

6.6.10 Industry shall have to manage waste oil, discarded containers etc., process waste as per Amended Rules - 2008 and shall apply

GPCB ID: 22072

Clean Gujarat Green Gujarat

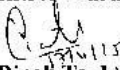
ISO - 9001 - 2008 & ISO - 14001 - 2004 Certified Organisation

3

Authorization / submit details for all applicable waste as per Amended Rules'2008 with 15 days.

6.6.11 Industry shall not recycle the waste falling under Scheudle-4 of the Authorization Hazardous waste' Rules-2008, till they obtain registration as a recycler from CPCB / GPCB.

**For and on behalf of  
Gujarat Pollution Control Board**

  
**(Dipali Tank)  
Unit Head**

NO.GPCB/CCA-VRD-132(1)/ID: 22072/

Issued To:  
M/s. J.R. Corporation,  
Plot No. 1085/B,  
Lamdapura Road,  
Manjusar, Tal: Savli,  
Dist: Vadodara- 391775.

GPCB ID: 22072

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# GUJARAT POLLUTION CONTROL BOARD

Paryavaran Bhavan

Sector-10-A, Gandhinagar - 382 010.

Phone : 23222756, 23222095, 23222096

Gram : CLEANWATER Fax : (079) 23232156

Website : www.gpcb.gov.in

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 Authorisation under rule 3(c) & 5(5) of the Hazardous Waste (Management and Handling) Rules'1989 & as amended up to year 2003 framed under the Environmental (Protection) Act-1986.

And whereas Board has received consolidated consent application letter No. NIL dated: 28/2/2005 for the **Consolidated Consent and Authorization (CC & A)** of this Board under the provisions / rules 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. J.R. CORPORATION  
C/O-SADGURU ORGANICS PVT LTD  
PLOT NO-1085/B, LAMDAPURA ROAD  
MANJUSAR,TA-SAVLI,  
DIST-BARDOA-391770

1. Consent Order No.: 6854 date of Issue: 14/10/2005
2. The consents shall be valid up to 28/2/2010 for use of outlet for the discharge of trade effluent & emission due to operation of industrial plant for manufacture of the following items/products:

Sr. No.	Product	Quantity
1	CELLULOSE ACETATE PHTHALATE . I PLUSEP GRADE(CAP)	1.5 MT/MONTH
2	HYDROXYPROPYL METHYL CELLULOSE PHTHALATE USP GRADE(HPMCP)	1.1 MT/MONTH
3	CRUDE SODIUM ACETATE(BY PRODUCTION)	8.00 MT/MONTH

### 3. CONDITIONS UNDER THE WATER ACT:

- 3.1 There shall be no generation of wastewater from the manufacturing activities and other ancillary industrial operation.
- 3.2 The quantity of Sewage effluent from the factory shall not exceed 350 lits/day
- 3.3 **TRADE EFFLUENT:**
- 3.3.5 Domestic effluent shall be disposed off through septic tank/soak pit system

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

4.1 The following shall be used as fuel in boiler respectively.

Sr.No.	Fuel	Quantity
1	WOOD	1.5 MT/MONTH

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

4.2.1 The flue gas emission through stack attached to boiler/furnace/heater shall conform to the following standards:

Stack No.	Stack attached to	Stack height in Meter	Parameter	Permissible Limit
1.	BOILER	31'	Particulate matter SO <sub>2</sub> NO <sub>x</sub>	150 mg/NM <sup>3</sup> 100 ppm 50 ppm

4.2.2 There shall be no generation of Process emission from the manufacturing activities and other ancillary industrial operation.

4.2.3 The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder.

PARAMETER	PERMISSIBLE LIMIT
Suspended Particulate matter	200 Microgram Per cubic meter
Oxides of Sulphur	80 Microgram Per cubic meter
Oxides of Nitrogen	80 Microgram Per cubic meter

4.3. 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 attached 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.

4.4. 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 reckoned in between 6a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

5 **GENERAL CONDITIONS: -**

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

5.2 Applicant shall also comply with the general conditions given in annexure I



# GUJARAT POLLUTION CONTROL BOARD

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## 6. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 3 (c) & 5 (5))

Form for grant of authorisation for occupier or operator handling hazardous waste

6.1 Number of authorisation: 6854 Date of issue: 14/10/2005

6.1.1 M/s. J.R CORPORATION is hereby granted an authorisation to operate facility for following hazardous wastes on the premises situated at PLOT NO-1085/E, LAMDAPURA ROAD, MANJUSAR, TA-SAVLI, DIST-BARODA-391770

Sr. No.	Waste	Quantity	Schedule	Facility
1	CRUDE SODIUM ACETATE	96 MT/Yr	28.4	Collection, storage transportation disposal by incineration
2	SPENT	WHATEVER GENERATED	28.2	Collection, storage transportation disposal
3	DESCARDED CONTAINER	WHATEVER GENERATED	33.3	Collection, Storage Decontamination

6.1.2 The authorisation is granted to operate a facility as stated above.

6.1.3 The authorisation shall be in force for a period of 28/2/2010 from the date of issue

6.1.4 The authorisation 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.

### 6.1.5 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 authorisation 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, 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 authorisation order by the persons authorized shall constitute a breach of this authorisation.
- It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- An application for the renewal of an authorisation shall be made as laid down in rule 5 (6) (ii).

- 6.1.6. Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Supreme Court's order in W.P. No.657 of 1995 dated 14<sup>th</sup> October 2003.
- 6.1.7. 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.
- 6.1.8. Industry shall have to manage waste oil, discarded container, etc as per the amendment rules-2003.

For and on behalf of  
Gujarat Pollution Control Board

  
(V.R.PATEL)  
Environmental Engineer

NO: PC/VRD/CCA-132/ 30204  
Issued to:  
M/s. J.R CORPORATION  
C/-SADGURU ORGANIC PVT LTD  
PLOT NO- 1085/B, LAMDAPURA ROAD  
MANJUSAR, TA-SAVLI  
DIST-BARODA-391770

18 OCT 2005

**ANNEXURE- II**

**LIST OF EXISTING & PROPOSED PRODUCTS AND THEIR PRODUCTION CAPACITY:**

Sr. No.	Name of Products	Existing Quantity in MT/Month	Proposed Quantity in MT/Month	Total Quantity in MT/Month
<b>EXISTING</b>				
1	Cellulose Acetate Phthalate-I pluse p grade	1.5	0	1.5
2	Hydroxy propyl methyl cellulose phthalate USP grade(HPMCP)	1.1	0	1.1
3	Crude sodium Acetate(by production)	8	0	8
<b>PROPSOED</b>				
1.	Glimipride	0.0	2	2
2.	Carvedilol		0.5	0.5
3.	Alendronate sodium		2	2
4.	Mirtazepin		0.5	0.5
5.	Topiramate		1	1
6.	Losartan Potassium		1	1
7.	Lacidipine		0.5	0.5
8.	Granisetron		0.5	0.5
9.	Ondensetron		0.5	0.5
10.	Naltrexone		0.5	0.5
11.	Buprenorphine HCl		0.5	0.5
12.	Metoprolol Succinate		3	3
13.	Colesevelan HCl		0.3	0.3
14.	Montelukast sodium		0.5	0.5
15.	Desloratidine		0.6	0.6
16.	Levocetizine dihydrochloride		0.5	0.5
17.	Duloxetine HCl		0.5	0.5
18.	Paroxetine HCl		0.4	0.4
19.	Diclofenace sodium		100	100
20.	Zonisamide		0.6	0.6
21.	Lacosamide		0.4	0.4
22.	Oxcarbazepine		0.6	0.6
23.	Aripiprazole		0.3	0.3
24.	Paliperidone		0.3	0.3
25.	Quetiapine		1	1
26.	Risperidone		0.5	0.5
27.	Balasalazide disodium		1.5	1.5
28.	Valacyclovir HCl		1	1
29.	Cinaclet HCl		0.5	0.5
30.	Deferasirox		1	1
31.	Epiinephrine		1	1
32.	Zolpidem tartrate		0.2	0.2
33.	Fesotero dinefumarate		1	1

34.	Pramipraxole Dihydrochloride		1	1
35.	Rabeprazole sodium		0.7	0.7
36.	Rosuvastatin calcium		1	1
37.	Sitagliptin phosphate		1	1
38.	Sumatriptan Succinate		1	1
39.	Tamsulosin HCl		0.3	0.3
40.	Dextro methophan Hbr		2	2
41.	Captopril		1	1
42.	Pioglitazone HCl		0.5	0.5
43.	Fexofenadine HCl		3	3
44.	Entaxapone		1	1
45.	Amoldipine Besylate		2	2
46.	Atovaquone		1	1
47.	Clinidipine		1	1
48.	Desvenlafaxine		1	1
49.	Devalproex sodium		1	1
50.	Donepzil HCl		0.3	0.3
51.	Dronedarone HCl		0.3	0.3
52.	Iopamidol & its derivatives		20	20
53.	Nebivolol		1	1
54.	Palonosetron HCl		2	2
55.	Pantoprazole sodium		1	1
56.	Saxagliptin Monohydrate		1	1
57.	Tapentadol HCl		1	1
58.	Venlafaxine HCl & derivative		1	1
59.	Zoledronic Acid		1.5	1.5
60.	Bethanechol chloride		1	1
61.	Nadifloxacin		0.5	0.5
62.	Paliperidone palmitate		0.5	0.5
63.	Pidotimod		2	2
64.	Apixaben		1	1
65.	Dofetilide		0.5	0.5
66.	Ivacaftor		1	1
67.	Oxybutynin chloride		2	2
68.	Pregabalin		3	3
69.	Agomelantine		0.5	0.5
70.	Aceclofenac		50	50
71.	Atenolol		0.5	0.5
72.	Valproic acid		3	3
73.	Sodium valproate		5	5
74.	Iavomilnacopran		1	1
75.	Milnacipran		0.7	0.7
76.	Diatrizoic acid		5	5
77.	TBEE		1	1
78.	R&D products		1	1
	<b>Total</b>	<b>0.00</b>	<b>252</b>	<b>254.6</b>

**ANNEXURE-III**

**LIST OF PROPOSED RAW MATERIALS**

Sr. No.	Production Quantity	Name of Proposed Product	Name Raw Materials	Proposed Quantity in T/T	Proposed Quantity in MT/Month
1.	2	Glimipride	Trans-4-Methyl Cyclohexane	0.3	0.6
			Hydroxyl amine hydrochloride	0.3	0.6
			4-[2-(3-ethyl-4-methyl-2-carbonyl pyrrolidineamido)-ethyl]	0.8	1.6
			THF	0.3	0.6
			Toluene	0.2	0.4
			<b>Total</b>	<b>1.9</b>	<b>3.8</b>
2.	0.5	Carvedilol	N-[2-(2-methoxyphenoxy)ethyl]benzylamine(cvl-2A-Hydrous)	0.7	0.35
			Epichlorohydrin	0.3	0.15
			4-(2,3-Epoxypropoxy)carbazole	0.7	0.35
			Methanol	0.4	0.2
			MDC	0.2	0.1
			Ethyl Acetate	0.2	0.1
			toluene	0.2	0.1
			<b>Total</b>	<b>2.7</b>	<b>1.35</b>
3.	2	Alendronate sodium	water	2	4
			Gama amino butyric acid	0.4	0.8
			Phosphorous acid crystal	0.6	1.2
			Sodium hydroxide flakes	0.15	0.3
			<b>Total</b>	<b>3.15</b>	<b>6.3</b>
4.	0.5	Mirtazepin	Sulphuric acid	2	1
			MRT-6	0.14	0.07
			Ethyl acetate	1.4	0.7
			Liquor ammonia	1.18	0.59
			Hexane	1.18	0.59
			Methanol	1.35	0.675
			Charcoal	0.0357	0.01785
<b>Total</b>	<b>7.2857</b>	<b>3.64285</b>			
5.	1	Topiramate	Acetone	0.8	0.8

			Sulphuric acid	4	4
			Fructose	8.313	8.313
			Methanol	1	1
			Sulfuryl Chloride	1.725	1.725
			HCl	1.011	1.011
			Ammonia	0.865	0.865
			<b>Total</b>	<b>17.714</b>	<b>17.714</b>
6.	1	<b>Losartan Potassium</b>	BCFI (2-Butyl-4 chloro-5-formyl Imidazole)	0.974	0.974
			BMCB (4-Bromo Methyl 2-Cyanobiphenyl)	1.433	1.433
			Methanol	0.7	0.7
			Sodium Borohydride	0.069	0.069
			Sodium Azide	1.053	1.053
			Hydrochloric Acid sol	0.5	0.5
			Potassium Hydroxide flakes	0.252	0.252
			Isopropyl Alcohol	1.6	1.6
			<b>Total</b>	<b>6.581</b>	<b>6.581</b>
7.	0.5	<b>Lacidipine</b>	O- Phthalaldehyde	1.466	0.733
			t-Butyl Triphenyl Phosphors anylidine Acetate (LCD-3)	4	2
			Ethyl –3- amino Crotonate	3.666	1.833
			Isopropyl Alcohol (IPA)	1.6	0.8
			<b>Total</b>	<b>10.732</b>	<b>5.366</b>
8.	0.5	<b>Granisetron</b>	1-methylindazole-3-carboxylic acid	0.6	0.3
			Pivaloyl chloride	0.4	0.2
			MDC	2.5	1.25
			Endo-9-methyl-9-azabicyclo[3,3,1]-nonan-3-amine	0.55	0.275
			HCl	0.49	0.245
			Activated charcoal	0.01	0.005
			<b>Total</b>	<b>4.55</b>	<b>2.275</b>
9.	0.5	<b>Ondansetron</b>	Acetone	0.2	0.1
			Potassium Carbonate Anhydrous (Powder )	2	1
			1,2,3,4- Tetrahydro-4H-Carbazole-4-one	3.04	1.52
			Dimethyl Sulphate	2	1

			Methanol	1.5	0.75
			<b>Total</b>	<b>8.74</b>	<b>4.37</b>
10.	0.5	Naltrexone	Methane Sulphonic Acid	0.5	0.25
			HCl	0.5	0.25
			Naltrexone Stage-2	2	1
			Methanol	2.4	1.2
			MDC	2.4	1.2
			Toluene	0.4	0.2
			Acetic Anhydride	2.1	1.05
			Ethyl carbonochloridate	3	1.5
			Acetic Acid	4.8	2.4
			Cyclopropyl Methanol	2.599	1.2995
			<b>Total</b>	<b>20.699</b>	<b>10.3495</b>
11.	0.5	Buprenorphine HCl	(7a-(2-hydroxy-3,3-dimethyl-2-butyl)-6,14-endo-ethano-6,7,8,14-tetrahydronorthebain)	2	1
			Cyclopropyl Methanol	0.3	0.15
			Methane sulphonyl chloride	0.6	0.3
			Methanol	2.1	1.05
			dimethyl formamide	1.1	0.55
			potassium tertiary butoxide	0.3	0.15
			dimethyl sulfoxide	0.8	0.4
			HCl	0.5	0.25
			acetone	0.3	0.15
			<b>Total</b>	<b>8</b>	<b>4</b>
12.	3	Metoprolol Succinate	Isopropyl alcohol	1.1	3.3
			Hyflo	0.0057	0.0171
			Metoprolol stage-1	1.159	3.477
			<b>Total</b>	<b>2.2647</b>	<b>6.7941</b>
13.	0.3	Colesevelan HCl	Methanol	1.2	0.36
			Sevelamer free base	0.438	0.1314
			6-(bromo hexyl) Trimethyl ammonium bromide	0.438	0.1314
			1-Bromodecane	0.285	0.0855
			NaOH	0.263	0.0789
			NaCl	1.2	0.36
			Hydrochloric acid	1.135	0.3405

			Isopropyl alcohol	1.2	0.36
			<b>Total</b>	<b>6.159</b>	<b>1.8477</b>
14.	0.5	Montelukast sodium	Methanol	1.4	0.7
			Cyclohexylamine	0.855	0.4275
			Acetic acid	0.768	0.384
			Sodium cyanoborohydride	1.085	0.5425
			Sodium hydroxide	1.8	0.9
			Methylene chloride	4	2
			Toluene	1.4	0.7
			Mercepto methyl cyclopropyl acetic acid	1.25	0.625
			Para toluene sulfonic acid	0.0817	0.04085
			<b>Total</b>	<b>12.6397</b>	<b>6.31985</b>
15.	0.6	Desloratidine	Sulphuric acid	1.774	1.0644
			Loratidine	1.282	0.7692
			Ammonia liquor	3.743	2.2458
			Activated carbon	0.064	0.0384
			Toluene	1.4	0.84
			Cyclohexane	0.8	0.48
			Methanol	0.405	0.243
			<b>Total</b>	<b>9.468</b>	<b>5.6808</b>
16.	0.5	Levocetirizine dihydrochloride	Dimethyl Formamide	0.4	0.2
			R-1-1[(4-chlorophenyl)phenyl methyl]piperazine	1.923	0.9615
			2-Chloro ethoxy Acetamide	1.388	0.694
			Potassium Carbonate Anhydrous	2.317	1.1585
			Potassium Iodide	0.067	0.0335
			Ethyl Acetate	0.8	0.4
			Isopropyl alcohol	1.6	0.8
			<b>Total</b>	<b>8.495</b>	<b>4.2475</b>
17.	0.5	Duloxetine HCl	N,N-Dimethyl-3-(1-naphthoxy)-3-(2-thienyl)-1-propylamine oxalate	1.4	0.7
			Liq. Ammonia	1	0.5
			L(-)-Di-p-toluoyl tartaric acid	1.4	0.7
			Phenyl Chloroformate	0.858	0.429

			Ammonium Chloride	0.231	0.1155
			Ethyl acetate	2.2	1.1
			<b>Total</b>	<b>7.089</b>	<b>3.5445</b>
18.	0.4	Paroxetine HCl	Methylene chloride	2.4	0.96
			Trans(-) paroxol	1.26	0.504
			Triethylamine	0.3	0.12
			Para toluene Sulfonyl chloride	1.512	0.6048
			Methane Sulfonic acid	0.823	0.3292
			Toluene	2.5	1
			N,N-Dimethyl Acetamide	4.501	1.8004
			Sesamol	0.887	0.3548
			Potassium tertiary butoxide	0.596	0.2384
			Phenyl Chloroformate	1.482	0.5928
			CP Hydrochloric acid	0.576	0.2304
			Dimethyl Sulfoxide	0.7	0.28
			Potassium Hydroxide Flakes	2.1	0.84
					<b>Total</b>
19.	100	Diclofenace Sodium	Sodium Hydroxide flakes	0.325	32.5
			1-92,6-Dichloriphenyl)-2-Indolinone	1.1	110
			charcoal	0.05	5
			<b>Total</b>	<b>1.475</b>	<b>147.5</b>
20	0.6	Zonisamide	zon-II	1.2	0.72
			phosphorus oxy chloride	1.4	0.84
			ethyl acetate	1.2	0.72
			ammonia gas	0.2	0.12
			<b>Total</b>	<b>4</b>	<b>2.4</b>
21	0.4	Lacosamide	Sodium hydroxide	1.685	0.674
			D-serine	0.819	0.3276
			t-butyl oxy carbonic anhydride	2	0.8
			Methylene chloride	4.2	1.68
			<b>Total</b>	<b>8.704</b>	<b>3.4816</b>
22	0.6	Oxcarbazepine	Oxcarbazepine Stage-3	1.282	0.7692
			Sodium Cyanate	0.621	0.3726
			Acetic Acid	3.2	1.92
			Sulfuric acid	0.6	0.36

			Ammonia Liquor	0.022	0.0132
			Methanol	2.1	1.26
			Dimethyl formamide	0.5	0.3
			Toluene	1.1	0.66
			<b>Total</b>	<b>9.425</b>	<b>5.655</b>
23	0.3	Aripiprazole	Methanol	0.8	0.24
			7-Hydroxy-3,4-dihydro-1H-quinolin-2-one	0.643	0.1929
			Potassium carbonate	1.093	0.3279
			1-Bromo-4-chlorobutane	1.1	0.33
			Cyclohexane	0.7	0.21
			N,N, Dimethyl Acetamide	1.2	0.36
			Potassium carbonate	1.042	0.3126
			1-(2,3-Dichlorophenyl) Piperazine HCL	1.007	0.3021
			Sodium Iodide	0.769	0.2307
			Ethyl Acetate	0.8	0.24
			Activated carbon	0.04	0.012
24	0.3	Paliperidone	FBPI. HCl	1.4	0.42
			Methanol	2.8	0.84
			Eno carbon	0.4	0.12
			Hyflo	0.4	0.12
			CTHMP	1.24	0.372
			MDC	5.2	1.56
			DIPA	1.63	0.489
			DMDC	0.79	0.237
			Acetone	0.5	0.15
			HCl	1.12	0.336
			Na <sub>2</sub> CO <sub>3</sub>	3.39	1.017
			IPA	1.143	0.3429
			<b>Total</b>	<b>20.013</b>	<b>6.0039</b>
25	1	Quetiapine	Sodium Hydroxide flakes	0.21	0.21
			2-Amino diphenyle sulfide	0.707	0.707
			Toluene	1.4	1.4
			Phenyl chloroformate	0.813	0.813
			Poly phosphoric acid	2.4	2.4
			N,N-Dimethyl aniline	0.576	0.576

			Phosphorous oxychloride	0.466	0.466
			Hydrochloric acid	1.189	1.189
			Hydroxy Ethoxy rthyl Piparazine	0.576	0.576
			Methanol	0.0274	0.0274
			Fumaric acid	2.6	2.6
			<b>Total</b>	<b>10.9644</b>	<b>10.9644</b>
26	0.5	Risperidone	Benzisoxazole intermediate	3.917	1.9585
			Pyridopyrimidine intermediate	0.991	0.4955
			Tri ethanol amine	1.229	0.6145
			Isopropyl Alcohol	0.991	0.4955
			Methylene chloride	1.6	0.8
			Methanol	0.775	0.3875
			<b>Total</b>	<b>9.503</b>	<b>4.7515</b>
27	1.5	Balasalazid e disodium	Balsalazide-1	0.4	0.6
			5% Palladium on charcoal	0.01	0.015
			Methanol	1.2	1.8
			Ethyl acetate	1.4	2.1
			Sodium nitrite	1.417	2.1255
			Salicylic acid	0.601	0.9015
			Potassium hydroxide	1.767	2.6505
			Hydrochloric acid	1.972	2.958
			Dicyclohexyl amine	4.03	6.045
			Sodium hydroxide flakes	0.6	0.9
			Isopropyl alcohol	0.259	0.3885
			<b>Total</b>	<b>13.656</b>	<b>20.484</b>
28	1	Valacyclovi r HCl	Dimethylformamide	1.3	1.3
			CBZ-L-valine (N-benzyl oxovaline)	1.2	1.2
			1,3- Dicyclohexylcarbodiimid e	0.9	0.9
			Acyclovir	88	88
			4-Dimethylamino pyridine	0.56	0.56
			Acetic acid	3	3
			Di-isopropyl ethylamine	0.607	0.607
			Isopropyl alcohol	0.6	0.6
			5% Palladium on CaCO <sub>3</sub>	0.05	0.05

			Methanol	0.204	0.204
			Hydrochloric acid	2.2	2.2
			<b>Total</b>	<b>98.621</b>	<b>98.621</b>
29	0.5	Cinaclet HCl	Tri ethyl phosphite	0.298	0.149
			Ethyl chloroformate	0.31	0.155
			Toluene	0.25	0.125
			3-(Tri Flouro methyl)Benzaldehyde	2.5	1.25
			25%w/w sodium Methoxide Solution in methanol	3.5	1.75
			Methanol	1.2	0.6
			5% Palladium charcoal(50% wet)	0.02	0.01
			Tetrahydrofuran	0.273	0.1365
			Sodium borohydride	0.5	0.25
			Methylene chloride	4	2
			Oxalyl chloride	1.2	0.6
			Hydrochloric acid	2	1
			R-(+)-1-(i- naphthyl)ethylamine hydrochloride	3.5	1.75
			Liquor ammonia	0.766	0.383
			Cyclohexane	2.983	1.4915
			Formic acid	3.553	1.7765
30	1	Deferasirox	Toluene	0.553	0.553
			Salicylic acid	3.627	3.627
			Thionyl chloride	2.789	2.789
			Dimethyl formamide	0.45	0.45
			Acetic acid	2.186	2.186
			4-Hydrazinbenzoic acid	7.615	7.615
			Methanol	1.6	1.6
31	1	Epiinephrine	Dimethyl formamide	0.3	0.3
			Mono Methylamine	3	3
			3,4-Dihydroxy-2'- chloroacetophenone(DH CA)	0.77	0.77
			Ortho phosphoric acid	3.8	3.8
			10% Pd/C	0.08	0.08

			Liq. Ammonia	0.34	0.34
			Methanol	1.4	1.4
			Isopropyl alcohol	2.3	2.3
			(1S)-(+)-camphor-10-sulfonic acid	0.786	0.786
			Acetic Acid	1.4	1.4
			<b>Total</b>	<b>14.176</b>	<b>14.176</b>
32	0.2	Zolpidem tartrate	2-(4-methyl phenyl)-6-methyl-imidazole[1.2-a]pyridine 3acetone nitrile	1.5	0.3
			Potassium hydroxide flakes	0.75	0.15
			Acetic acid	0.2	0.04
			Methylene chloride	1.2	0.24
			Triethylamine	0.28	0.056
			Pivaloyl chloride	0.677	0.1354
			Dimethyl amine	0.743	0.1486
			Ethyl acetate	1.593	0.3186
			Methanol	1.6	0.32
			Sodium hydroxide flakes	0.302	0.0604
			<b>Total</b>	<b>8.845</b>	<b>1.769</b>
			33	1	Fesotero dinefumarate
Lithium Aluminium Hydride	0.21	0.21			
R-(-)-4-benzyloxy-3-(3-Diisopropylamino-1-phenyl-propyl)-benzoic acid methyl ester	0.19	0.19			
Sodium Sulphate	1.7	1.7			
THF (For hyflow bed)	0.476	0.476			
Methanol	1.8	1.8			
Palladium on Charcoal	0.08	0.08			
Butylated Hydroxy Toluene NF	0.45	0.45			
Sodium Borohydride	0.002	0.002			
Acetone	0.0142	0.0142			
Toluene	0.038	0.038			
Methylene Chloride	2.1	2.1			
Diisopropyl ethylamine	2.4	2.4			
Fumaric Acid	2.3	2.3			
<b>Total</b>	<b>12.3972</b>	<b>12.3972</b>			
34	1	Pramipraxyo	Tetrahydrofuran	0.43	0.43

		<b>le Hydrochloride</b>	(S)-2,6-Diamino-4,5,6,7-tetrahydro-benzothiazole	5.6	5.6
			Triethyl amine	0.2	0.2
			Propionic anhydride	1.219	1.219
			Ammonia liquor	1.577	1.577
			Sodium Borohydride	0.5	0.5
			Boron Tri-fluoride Ethyl ether complex	0.4	0.4
			Hydrochloric acid C.P. Grade	1.5	1.5
			Sodium Hydroxide Flakes	1.19	1.19
			Methylene chloride	2.8	2.8
			Acetonitrile	1.18	1.18
			Isopropyl alcohol	2.2	2.2
			<b>Total</b>	<b>18.796</b>	<b>18.796</b>
<b>35</b>	<b>0.7</b>	<b>Rabeprazole sodium</b>	Methanol	1.538	1.0766
			2-Mercapto Benzimidazole	6.4	4.48
			Solution of sodium hydroxide flakes in Purified water	1.172	0.8204
			2-chloromethyl-3-methyl-4-(3-methoxypropoxy)-pyridine HCL	7.2	5.04
			Toluene	0.9	0.63
			Tetrahydrofuran	0.4	0.28
			Sodium hypochlorite	4.2	2.94
			Methylene Chloride	3.2	2.24
			Ethyl acetate	1.4	0.98
			Acetone	0.8	0.56
			<b>Total</b>	<b>27.21</b>	<b>19.047</b>
<b>36</b>	<b>1</b>	<b>Rosuvastatin calcium</b>	Tetrahydrofuran	1.3	1.3
			Tert butyl-3R-Tert butyl Dimethyl Silyloxy-6-dimethoxy phosphinyl 5-oxo hexanoate (TSPH)	4.6	4.6
			N-[4-(4-Fluoro-phenyl)-5-formyl-6-Iso propylpyrimidin-2-yl]-N-Methyl methane	2.23	2.23

			Sulfonamide		
			Potassium t-butoxide	0.1	0.1
			Potassium hydrogen sulphate	0.452	0.452
			Methanol	2.2	2.2
			Ethyl acetate	0.31	0.31
			Diethyl methoxy borane(50%w/w) solution in THF	1.4	1.4
			Sodium borohydride	0.72	0.72
			Acetic acid glacial	1.6	1.6
			Sodium hydroxide	3.8	3.8
			Hydrochloric acid	1.23	1.23
			Cyclohexylamine	1.43	1.43
			Acetone	1.11	1.11
			Toluene	0.5	0.5
			Triethylamine	0.41	0.41
			<b>Total</b>	<b>23.392</b>	<b>23.392</b>
37	1	Sitagliptin phosphate	N,N-Dimethyl acetamide	1.075	1.075
			2,4,5-Trifluorophenyl acetic acid	3.731	3.731
			Meldrums acid	1.593	1.593
			4-(Dimethyl amino)pyridine	1.434	1.434
			Triethylamine	0.039	0.039
			Pivaloyl chloride	1.5	1.5
			Hydrochloric acid	1.769	1.769
			Tertiary Butanol	0.8	0.8
			(R)-(+)- $\alpha$ -methyl benzenamine	1.255	1.255
			Acetic acid	1.428	1.428
			Methanol	0.756	0.756
			Isopropyl alcohol	1.4	1.4
			Platinum on carbon 5%	0.03	0.03
			Maleic acid	5.202	5.202
			Con.sulphuric acid	0.781	0.781
			Sodium hydroxide flakes	1.309	1.309
			Ammonia liquor	1.541	1.541
Methylene chloride	0.648	0.648			
1-hydroxybenzotriazole	3.2	3.2			

			3-(trifluoromethyl-5,6,7,8-tetrahydro[1,2,3]triazolol [4,3:a]pyrazine HCl	0.113	0.113
			Phosphoric Acid	1.662	1.662
			Potassium carbonate	0.395	0.395
			<b>Total</b>	<b>31.661</b>	<b>31.661</b>
38	1	Sumatriptan Succinate	4-Hydrazino N-Methyl Benzene Methane Sulfonamide Hydrochloride	0.74	0.74
			Hydrochloric acid	1.935	1.935
			4- Chloro Butanol diethyl Acetal	2.938	2.938
			Methanol	1.491	1.491
			Disodium Hydrogen orthophosphate	4.5	4.5
			Methylene chloride	1.28	1.28
			Potassium carbonate	1.2	1.2
			Succinic acid	1.527	1.527
			Acetic acid	0.48	0.48
			Sodium cyano boro hydride	2.34	2.34
			Aques formalin	0.593	0.593
			Sodium borohydride	1.435	1.435
			Ethyl Acetate	0.1	0.1
			Isopropyl alcohol	0.261	0.261
			Sodium hydroxide flakes	4.28	4.28
39	0.3	Tamsulosin HCl	Dimethyl formamide	0.5	0.15
			Ethoxy Phenoxy ethyl bromide	10.34	3.102
			(R)-(-)[2-Aminopropyl]-2-methoxy benzene sulfonamide	1.095	0.3285
			Methylene chloride	1.647	0.4941
			Ammonia liquor	6.8	2.04
			Isopropyl alcohol	5.0476	1.51428
			HCl	3.43	1.029
40	2	Dextro methophan	PMPPA	4.49	8.98
			CHEA	3.383	6.766

			Phosphorus oxy chloride	4.15	8.3
			Caustic lye	4.46	8.92
			Toluene	2.1	4.2
			Formic acid	0.138	0.276
			Sodium borohydride powder	0.034	0.068
			Phosphoric acid	2.8	5.6
			Phosphorus pentoxide	0.54	1.08
			Acetone	0.8	1.6
			Hydro bromic acid	0.091	0.182
			Methanol	1.2	2.4
			<b>Total</b>	<b>24.186</b>	<b>48.372</b>
41	1	Captopril	Thio acetic acid	0.41	0.41
			Thionyl chloride	0.63	0.63
			Methacrylic acid	0.47	0.47
			Methanol	0.24	0.24
			Caustic lye	5.01	5.01
			N,n, di methyl aniline	0.25	0.25
			Methylene chloride	2.2	2.2
			Zinc	0.02	0.02
			Hydrochloric acid	2.3	2.3
			L-proline	0.35	0.35
			<b>Total</b>	<b>11.88</b>	<b>11.88</b>
42	0.5	Pioglitazone HCl	Benzyldine	1.8	0.9
			Methanol	3.3	1.65
			Caustic flakes	0.7	0.35
			Dimethyle formamide	1.2	0.6
			Cobalt chloride	0.018	0.009
			Dimethyle glyoxide	0.23	0.115
			Sodium borohydride	0.38	0.19
			Acetone	0.6	0.3
			Ethylene acetate	0.72	0.36
			Acetic acid	0.9	0.45
			HCl	0.46	0.23
			<b>Total</b>	<b>10.308</b>	<b>5.154</b>
43	3	Fexofenadine HCl	Keton	1.27	3.81
			DMF	1.8	5.4
			Azacyclanol	1.17	3.51

			Potassium bicarbonate	0.85	2.55
			Potassium iodide	0.01	0.03
			Chloroform	0.6	1.8
			Methanol	3.2	9.6
			Sodium hydroxide	0.99	2.97
			HCl	1.6	4.8
			MEK	1.75	5.25
			Acetone	2.6	7.8
			Sodium borohydride	0.16	0.48
			<b>Total</b>	<b>16</b>	<b>48</b>
44	1	Entaxapone	Methanol	1.8	1.8
			3,4-Dihydroxy-5-Nitrobenzaldehyde	1.146	1.146
			Piperidine	0.533	0.533
			Benzyl Trimethyl Ammonium Hydroxide	0.262	0.262
			2-Cyano-N, N-Diethyl Acetamide	1.051	1.051
			Acetic acid	3.2	3.2
			<b>Total</b>	<b>7.992</b>	<b>7.992</b>
45	2	Amoldipine besylate	Phthylolamidite	1.72	3.44
			Methanol	2.8	5.6
			Hydrazine hydrate	0.6	1.2
			Liquor ammonia	1.6	3.2
			IPA	3.4	6.8
			Benzene sulfonic acid	0.42	0.84
			Ethyle acetate	2.1	4.2
			<b>Total</b>	<b>12.64</b>	<b>25.28</b>
46	1	Atovaquone	3-chloro heptoquione	1	1
			Methanol	4.2	4.2
			KOH	1	1
			Acetic acid	1.4	1.4
			<b>Total</b>	<b>7.6</b>	<b>7.6</b>
47	1	Clinidipine	2-3-(nitro benzylidene) acetic acid	1	1
			3-aminocrotonic acid methyl ester	0.3	0.3
			Methanol	1.8	1.8
			<b>Total</b>	<b>3.1</b>	<b>3.1</b>
48	1	Desvenlafaxine	Tetra hydro-furan	1.8	1.8
			Desvenlafaxine	1.298	1.298

			Succinate Stage-2		
			Magnesium metal turnings	0.41	0.41
			Iodine resublimed	0.002	0.002
			Ammonium chloride	0.8	0.8
			Ethyl acetate	1.6	1.6
			Toluene	2.3	2.3
			Succinic acid	0.404	0.404
			Methanol	2.3	2.3
			5% pd/c	0.057	0.057
			Acetone	1.2	1.2
			<b>Total</b>	<b>12.171</b>	<b>12.171</b>
49	1	Devalproex sodium	Valproic acid	2.8	2.8
			Acetonitrile	1.4	1.4
			Sodium hydroxide flakes	1.76	1.76
			<b>Total</b>	<b>5.96</b>	<b>5.96</b>
50	0.3	Donepzil HCl	Methanol	4.2	1.26
			N-Benzyl-piperidine-4-carboxylic acid ethyl ester	3.378	1.0134
			Sodium hydroxide solution+ Sodium Borohydride	2.4	0.72
			Ethyl acetate	2.8	0.84
			Liquor ammonia	4.2	1.26
			Methylene chloride	6.2	1.86
			Oxalyl chloride	1.783	0.5349
			<b>Total</b>	<b>24.961</b>	<b>7.4883</b>
51	0.3	Dronedaron e HCl	1-Bromo 3-chloro propane	12.736	3.8208
			Di-n-butylamine	2	0.6
			HCl+Water (25+102.5)	2	0.6
			Di-isopropyl ether	0.72	0.216
			NaOH flake+ Water (10+100)	0.8	0.24
			Sodium hydroxide	3.44	1.032
			Methylene chloride	6.7	2.01
			N-Methyl-N, N,N-Tri octyl Ammonium chloride	0.038	0.0114
Isopropyl alcohol	1.2	0.36			

52	20		Palladium on charcoal	0.076	0.0228
			Hydrogen gas	0.085	0.0255
			Oxalic acid	0.817	0.2451
			Toluene	1.1	0.33
			Mesyl chloride	0.244	0.0732
			Propane-1,2-diol	0.031	0.0093
			Acetone	2.2	0.66
			1-Bromo 3-chloro propane	4.2	1.26
			<b>Total</b>	<b>38.387</b>	<b>11.5161</b>
			52	20	Iopamidol & its derivatives
DMA	1	20			
Serinol	0.336	6.72			
TEA	0.4	8			
Acetytic anhydride	1.4	28			
methanol	0.6	12			
NaOH flakes	0.18	3.6			
conc. HCl	0.07	1.4			
IPA	0.8	16			
APC	0.38	7.6			
<b>Total</b>	<b>6.166</b>	<b>123.32</b>			
53	1	Nebivolol	Benzopyran acetaldehyde	8.33	8.33
			Benzo pyranethanamine	2.77	2.77
			Sodium ciano borohydride	0.972	0.972
			THF	4.5	4.5
			Methanol	6.4	6.4
			Ethyle acetate	3.2	3.2
			<b>Total</b>	<b>26.172</b>	<b>26.172</b>
54	2	Palonosetron HCl	Pal-amine	1.24	2.48
			Toluene	2.1	4.2
			Trichloro Methyl chloroformate	0.65	1.3
			BF-3 Etherate	1.54	3.08
			NaOH	3	6
			IPA	4.2	8.4
			<b>Total</b>	<b>12.73</b>	<b>25.46</b>
55	1	Pantoprazole Sodium	2-chloro, 2-3dimethoxy pyridine	1.156	1.156
			5-diohiomethoxy benzimidole	1.109	1.109

			NaOH	4.38	4.38
			Methanol	3.4	3.4
			Pentaprazole sulfide	3.75	3.75
			DCM	6.2	6.2
			TEBA	0.017	0.017
			Sodium hypochloride	4.906	4.906
			Sodium thiosulfite	2.062	2.062
			MDC	2.1	2.1
			Acetic acid	0.953	0.953
			IPE	1.8	1.8
			Ethyle acetate	2.1	2.1
			<b>Total</b>	<b>33.933</b>	<b>33.933</b>
56	1	Saxagliptin Monohydrate	Carbonic acid	1	1
			IPA	1	1
			Conc.HCl	0.25	0.25
			DCM	3.2	3.2
			10% NaOH	0.3	0.3
			Ethyle acetate	0.8	0.8
			<b>Total</b>	<b>6.55</b>	<b>6.55</b>
57	1	Tapentadol HCl	3-methoxy phenyl	1	1
			D-Methionine	0.6	0.6
			Methanol sulfonic acid	0.5	0.5
			NaOH solution	0.5	0.5
			Ethyle acetate	1.4	1.4
			Acetone	1.4	1.4
			IPA	2.4	2.4
			<b>Total</b>	<b>7.8</b>	<b>7.8</b>
58	1	Venlafaxine HCl & derivative	Amino Venlafaxine HCl	10.752	10.752
			DCM	3.5	3.5
			NaOH	2.4	2.4
			Formic Acid	1	1
			Formaldehyde	1.5	1.5
			Ethyle Acetate	2.4	2.4
			NaHCO <sub>3</sub>	0.86	0.86
			IPA	3.2	3.2
			HCl	1.2	1.2
59	1.5	Zoledronic Acid	IM acid	0.769	1.1535
			Phospours acid	0.598	0.897

			Phosphours oxychloride	0.672	1.008
			Dil. HCl	3.538	5.307
			Charcoal	0.072	0.108
			Acetone	2.4	3.6
			<b>Total</b>	<b>8.049</b>	<b>12.0735</b>
60	1	Bethanechol chloride	Propylene oxide	0.62	0.62
			Trimethyle amine	4.434	4.434
			HCl	1.648	1.648
			Chloroform	1.769	1.769
			Triphosgene	1.117	1.117
			Ammonia	0.62	0.62
			Methanol	0.8	0.8
			IPA	0.66	0.66
			<b>Total</b>	<b>11.668</b>	<b>11.668</b>
61	0.5	Nadifloxacin	Emme	1.402	0.701
			Poly Phosphoric acid	0.798	0.399
			Methanol	3.2	1.6
			HCl	1.1	0.55
			Acetic acid	0.736	0.368
			Acetic anhydride	1.893	0.9465
			Boric acid	0.263	0.1315
			DMSO	0.7	0.35
			Triethylamine	0.698	0.349
			4-Hydroxy piperidine	0.419	0.2095
			Sodium chloride	2.095	1.0475
			Caustic lye	1.522	0.761
			<b>Total</b>	<b>14.826</b>	<b>7.413</b>
62	0.5	Paliperidone palmitate	Paliperidone	1.12	0.56
			MDC	5.1	2.55
			Palmitic acid	1.344	0.672
			DCC	0.84	0.42
			4-DMAP	0.089	0.0445
			MTBE	1.8	0.9
			Methanol	2.3	1.15
			MEK	1.3	0.65
			<b>Total</b>	<b>13.893</b>	<b>6.9465</b>
63	2	Pidotimod	Ethyl-L-Thiazodine-4-Carboxylate HCl	1.428	2.856
			Potassium carbonate	1.428	2.856

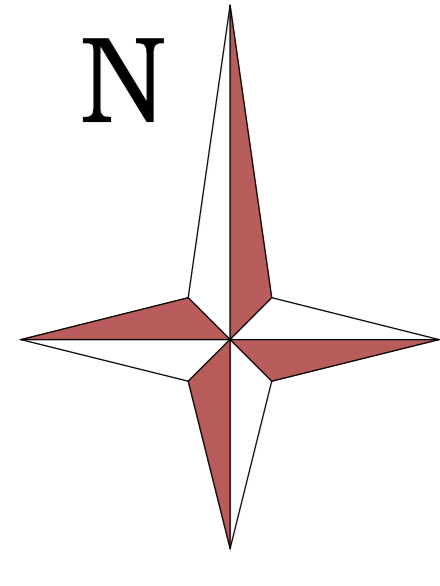
			MDC	3.5	7
			L-Pyroglutamic acid	1.014	2.028
			DCC	1.642	3.284
			Caustic flakes	0.314	0.628
			HCl	1.011	2.022
			Methanol	0.571	1.142
			<b>Total</b>	<b>10.908</b>	<b>21.816</b>
64	1	Apixaben	4-Iodoaniline	2.875	2.875
			THF	1.6	1.6
			TEA	1.6	1.6
			5-Bromo Valeryl chloride	3.133	3.133
			Potassium hydroxide	2.587	2.587
			MDC	4.78	4.78
			Ethyl acetate	3.2	3.2
			IPE	1.4	1.4
			Toluene	2.4	2.4
			Pcl <sub>5</sub> (phosphorous Penta chloride)	6.261	6.261
			Morpholine	2.147	2.147
			Methoxy Hydrazone compound	1.267	1.267
			Piperidine-2-one	3.6	3.6
			Copper iodide	0.138	0.138
			N-n' dimethyl ethylene diamine	0.098	0.098
			Potassium phosphate tribasic	3.1	3.1
			DCM	3.2	3.2
			Ammonium hydroxide	4.935	4.935
			Caustic solution	0.207	0.207
			HCl	1.381	1.381
			Acetone	1.2	1.2
			Triethyl amine	0.516	0.516
			Ethyl chloroformate	0.281	0.281
Ammonia gas	1.174	1.174			
			<b>Total</b>	<b>53.08</b>	<b>53.08</b>
65	0.5	Dofetilide	Nitro amine	1.6	0.8
			Chloro nitro Phenoxy	1.408	0.704
			Potassium bicarbonate	3.696	1.848
			Sodium iodide	1.328	0.664

			DMAC	1.4	0.7
			Acetonitrole	2.2	1.1
			IPA	1.8	0.9
			5% Pd C	0.048	0.024
			Methanol	3.6	1.8
			Methane sulphonyl chloride	1.173	0.5865
			Caustic flakes	0.624	0.312
			HCl	0.624	0.312
			Ethyl acetate	2.4	1.2
			<b>Total</b>	<b>21.901</b>	<b>10.9505</b>
66	1	Ivacaftor	Aniline	0.373	0.373
			EMME	0.932	0.932
			PPA	1.305	1.305
			Sodium hydroxide	0.104	0.104
			HCl	0.522	0.522
			Amino Phenol	0.657	0.657
			HATU	1.315	1.315
			DIPEA	1.462	1.462
			DMF	1.2	1.2
			Acetone	1.2	1.2
			<b>Total</b>	<b>9.07</b>	<b>9.07</b>
67	2	Oxybutynin chloride	Propargyl alcohol	0.25	0.25
			Diethyl amine	0.4375	0.4375
			Sulphuric acid	0.23	0.23
			Formalin	0.625	0.625
			Cupric sulfate solution	0.043	0.043
			Sodium chloride	0.5	0.5
			Aq. Ammonia	1.875	1.875
			Isopropyl ether	0.8	0.8
			BDA	0.35	0.35
			HCl	2	2
			<b>Total</b>	<b>8.9105</b>	<b>8.9105</b>
68	3	Pregabalin	Iso veraldehyde	1.2	3.6
			Ethyl cyano acetate	1.56	4.68
			Di-n-propyle amine	0.101	0.303
			N-Hexane	1.8	5.4
			Diethyl malonate	2.12	6.36

			Urea	0.86	2.58
			Sodium hydroxide	0.18	0.54
			Chloroform	2.1	6.3
			Methanol	0.244	0.732
			R-(+)-(a)-phenyl ethyl amine	0.82	2.46
			Hydrochloric acid	0.6	1.8
			Sodium hydroxide	1.352	4.056
			Liq. Bromine	0.98	2.94
			<b>Total</b>	<b>13.917</b>	<b>41.751</b>
69	0.5	Agomelanti ne	2-(7-methoxy-1-naphthyl) Acetonitrile	1.234	0.617
			Hydrogen gas	0.024	0.012
			Isopropyl alcohol HCl	0.91	0.455
			2-(7-methoxy-1- naphthyl)ethylamine hydrochloride	1.234	0.617
			Sodium acetate anhydrous	0.518	0.259
			Acetic anhydrous	0.62	0.31
			<b>Total</b>	<b>4.54</b>	<b>2.27</b>
70	50	Aceelofenac	Diclofenace sodium	0.976	48.8
			T-butylchloro acetate	0.462	23.1
			Toluene	0.8	40
			<b>Total</b>	<b>2.238</b>	<b>111.9</b>
71	0.5	Atenolol	Perahydroxy phenyl Acetamide	0.751	0.3755
			Epichlorohydrin	0.864	0.432
			Sodium hydroxide	0.187	0.0935
			Iso propyl amine	1.052	0.526
			HCl	0.413	0.2065
			Charcoal	0.018	0.009
			<b>Total</b>	<b>3.285</b>	<b>1.6425</b>
72	3	Valproic acid	Diethyl di propyl malonate	1.931	5.793
			Sodium hydroxide	1.604	4.812
			Methanol	2.8	8.4
			HCl	1.8	5.4
			<b>Total</b>	<b>8.135</b>	<b>24.405</b>
73	5	Sodium valproate	Valproic acid	0.953	4.765
			Acetone	0.8	4

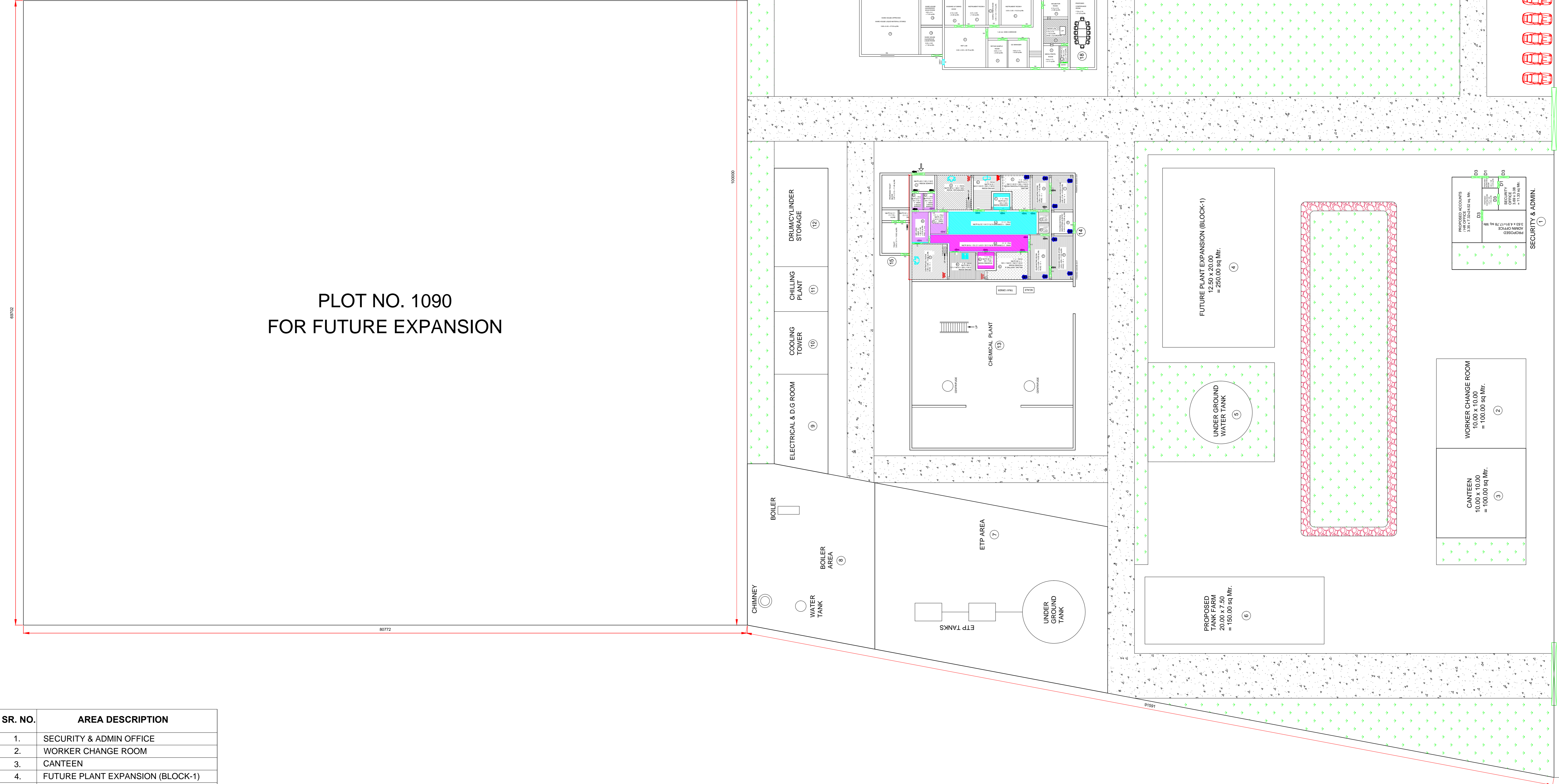
			NaOH	0.551	2.755
			<b>Total</b>	<b>2.304</b>	<b>11.52</b>
74	1	Iavomilnacopran	Lactone	0.926	0.926
			Aluminium trichloride	0.826	0.826
			Toluene	3.2	3.2
			Diethylamine	0.932	0.932
			Thionyl Chloride	0.625	0.625
			Potassium phthalimide	1.509	1.509
			Cyclohexane	1.4	1.4
			Ethanolamine	0.8	0.8
			HCl	0.603	0.603
			Caustic	0.301	0.301
			Isopropyl acetate	1.4	1.4
			IPA HCl	0.6	0.6
			<b>Total</b>	<b>13.122</b>	<b>13.122</b>
			75	0.7	Milnacipran
Epichlorohydrine	3.043	2.1301			
Sodamide	3.478	2.4346			
THF	2.3	1.61			
Toluene	2.8	1.96			
Ethyle acetate	1.8	1.26			
Sodium hydroxide	2.608	1.8256			
Conc. HCl	1.8	1.26			
Potassium carbonate	5.043	3.5301			
Potassium phthalamide	2.3	1.61			
Dimethyle Sulfoxide	1.3	0.91			
IPA	0.8	0.56			
N-hexane	0.6	0.42			
Acetic acid	2.608	1.8256			
Thionyl chloride	1.173	0.8211			
Diethyle amine	1.347	0.9429			
Sodium sulfate	0.782	0.5474			
Hydrazine hydrate	0.304	0.2128			
Dichloro methane	3.2	2.24			
Methyl Tertiary butyl ether	0.8	0.56			
<b>Total</b>	<b>42.433</b>	<b>29.7031</b>			
76	5	Diatrizoic acid	3,5-Dinitro benzoic acid	0.5	2.5
			Sodium carbonate	0.355	1.775

			Pd/c(5% wet)	0.009	0.045
			Hydrogen gas	0.014	0.07
			Iodine	0.92	4.6
			Potassium chloride	0.5	2.5
			Conc.HCl	0.9	4.5
			Acetic anhydride	2.2	11
			<b>Total</b>	<b>5.398</b>	<b>26.99</b>
77	1	TBEE	L-Threonine	1.06	1.06
			Dimethoxy ethane	4.5	4.5
			Sulphuric acid	1.8	1.8
			Isobutylene	23.13	23.13
			Isopropyle ether	2.3	2.3
			Ammonia	0.9	0.9
			<b>Total</b>	<b>33.69</b>	<b>33.69</b>
78	1	R&D products	--	--	
	252	<b>TOTAL</b>		<b>1156.1848</b>	<b>1475.38178</b>



ANNEXURE - IV

PLOT NO. 1090  
FOR FUTURE EXPANSION

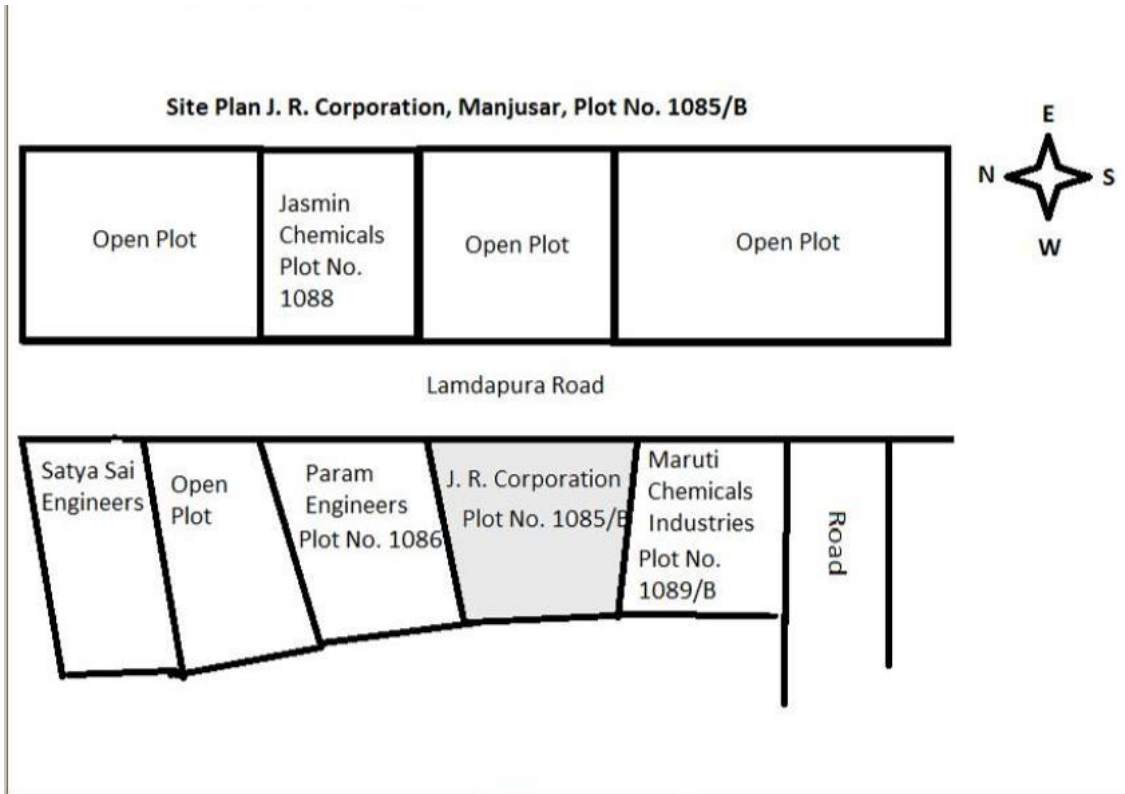


SR. NO.	AREA DESCRIPTION
1.	SECURITY & ADMIN OFFICE
2.	WORKER CHANGE ROOM
3.	CANTEEN
4.	FUTURE PLANT EXPANSION (BLOCK-1)
5.	UNDER GROUND TANK
6.	PROPOSED TANK FARM
7.	ETP AREA
8.	BOILER
9.	ELECTRICAL & DG ROOM
10.	COOLING TOWER
11.	CHILLING TOWER
12.	DRUM & CYLINDER AREA
13.	CHEMICAL PLANT
14.	PHARMA PLANT
15.	TOILET BLOCK
16.	WARE HOUSE
17.	QC / QA
18.	PROPOSED CONFERENCE ROOM
19.	FUTURE PLANT EXPANSION (BLOCK-2)
20.	VEHICLE PARKING AREA
21.	SCRAP YARD
22.	ENGG. & MAINT. ROOM

SITE BUILT UP AREA DESCRIPTION	(Sq. Mtr.)
1. TOTAL PLOT AREA	15395
2. BUILT UP AREA OF PLANT	482.5
3. BUILT UP AREA OF QC / QA	125.6
4. BUILT UP AREA OF WARE HOUSE	245.2
5. BUILT UP SECURITY & ADMIN.	85.2
6. BUILT UP CHANGE ROOM	100.0
7. CANTEEN	100.0
8. ETP & UTILITIES	947.3
9. SCRAP YARD	36.0
10. ENGG. & MAINT. ROOM	18.0

FOR J.R CORPORATION				
OWNER / DIRECTOR / PARTNER				
2	05.05.16	REVISED DRAWING		
1	25.04.16	PROPOSED DRAWING FOR PLANT MODIFICATION		
REV.	DATE	DESCRIPTION	PREP. BY	CHEKD. BY
<b>HYDROMET SOLUTIONS</b> Akarsh-1, Office No. A/06, Gotri Road, Vadodara, Gujarat.				
<b>SITE PLAN FOR</b> <b>J.R CORPORATION</b> Plot No. 1085/B, Manjusar, Tal- Savli, Dist- Vadodara.				
SCALE	JOB NO.	UNIT	DWG. No.	
-	-	-		

**ANNEXURE-V**  
**SITE PLAN**



**ANNEXURE-VI**

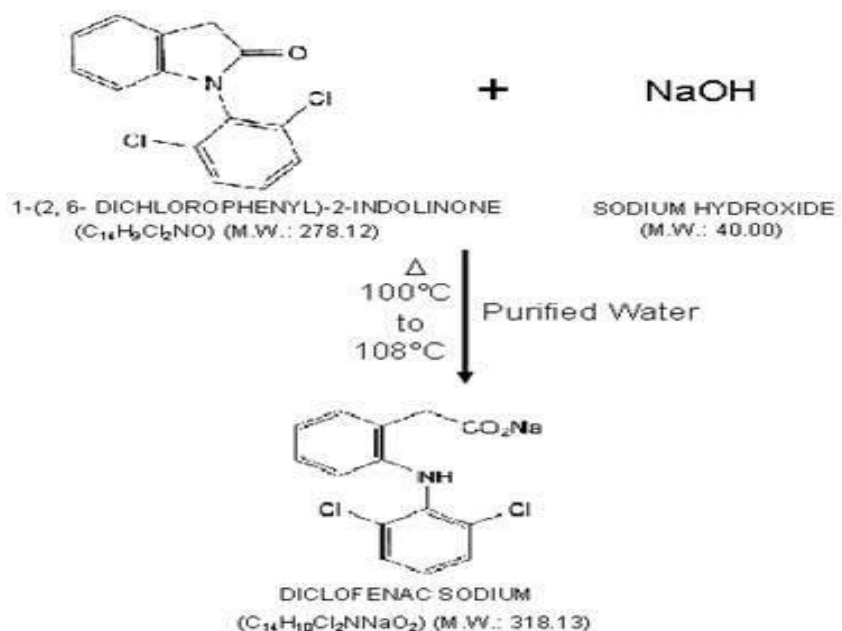
**BRIEF MANUFACTURING PROCESS DESCRIPTION OF MAJOR PRODUCTS**

**1. DICLOFENAC SODIUM**

**MANUFACTURING PROCESS**

Charge water, sodium hydroxide flakes & 1-(2,6-dichlorophenyl)-2 indolinone in to reactor, stir & heat the content, filter it through sparkler followed by micron. Transfer the filtrate in to another reactor, stir & cool the content. Centrifuge and then wash wet cake with water and dry the product.

**CHEMICAL REACTION**



**MATERIAL BALANCE**

Input	Qty in kg	Reactor	Output	Qty. in kg
Sodium Hydroxide flakes	0.325		Diclofenac Sodium	1
1-92,6-Dichloriphenyl)-2-Indolinone	1.1		Spent Carbon	0.07
charcoal	0.05		Loss to air	0.575
Water	3.3		Water to be reused in next batch	3.13
<b>Total</b>	<b>4.775</b>		<b>Total</b>	<b>4.775</b>

## 2. IOPAMIDOL MANUFACTURING PROCESS

### Stage-1

ATIPA chloride is condensed with serinol in presence of triethylamine using dimethylacetamide solvent to get serinol condense mass. Further acetylation is carried out in situ by adding dimethylaminino pyridine and acetic anhydride. Acetylated mass is isolated as white solid after quenching in water, filter the solid and dry.

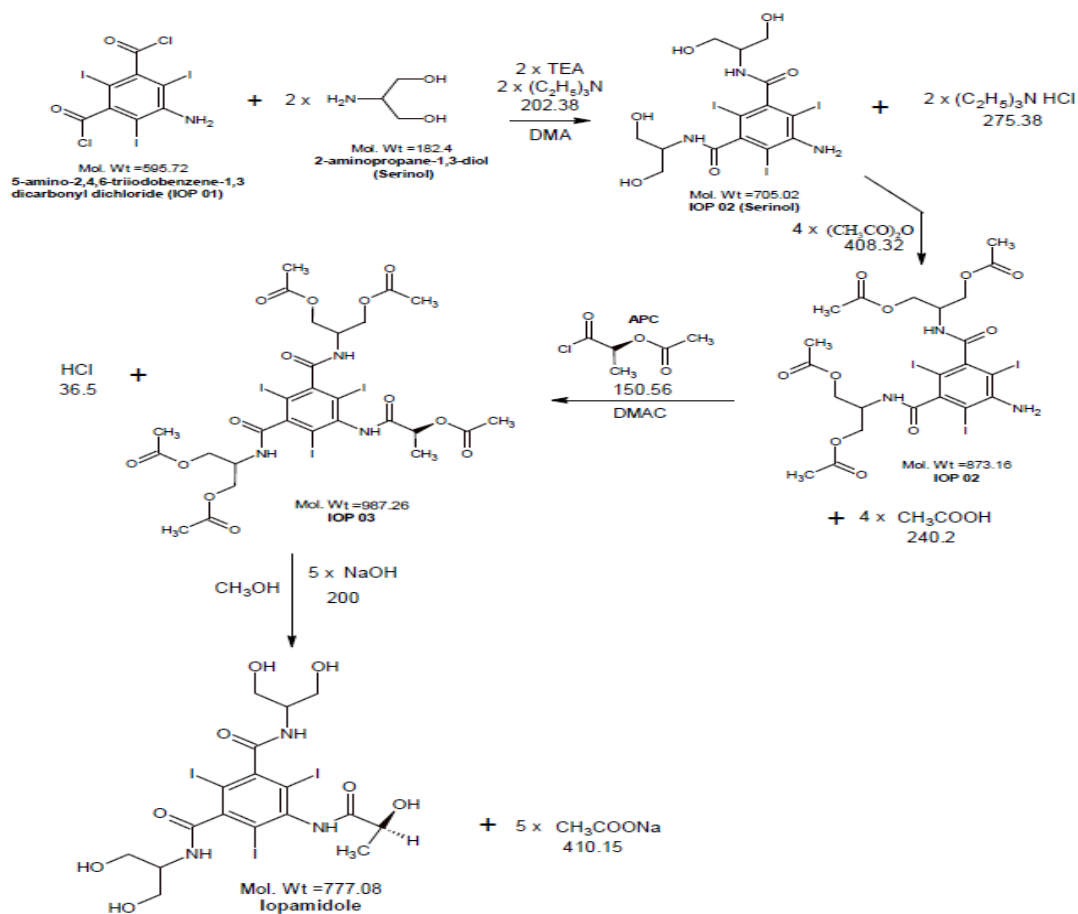
### Stage-2

Stage-1 is dissolved in dimethyl acetamide solvent and condense with acetoxy propanoyl chloride, the reaction mass is quench in IPA and tributyl amine is added till pH neutral, and filter to get APC condensed product.

### Stage-3

APC condense mass is hydrolysed in methanol and sodium hydroxide, after hydrolyses is over, acidify with HCl. Methanol is distilled to get oily mass. Iopamidol is isolated by adding IPA.

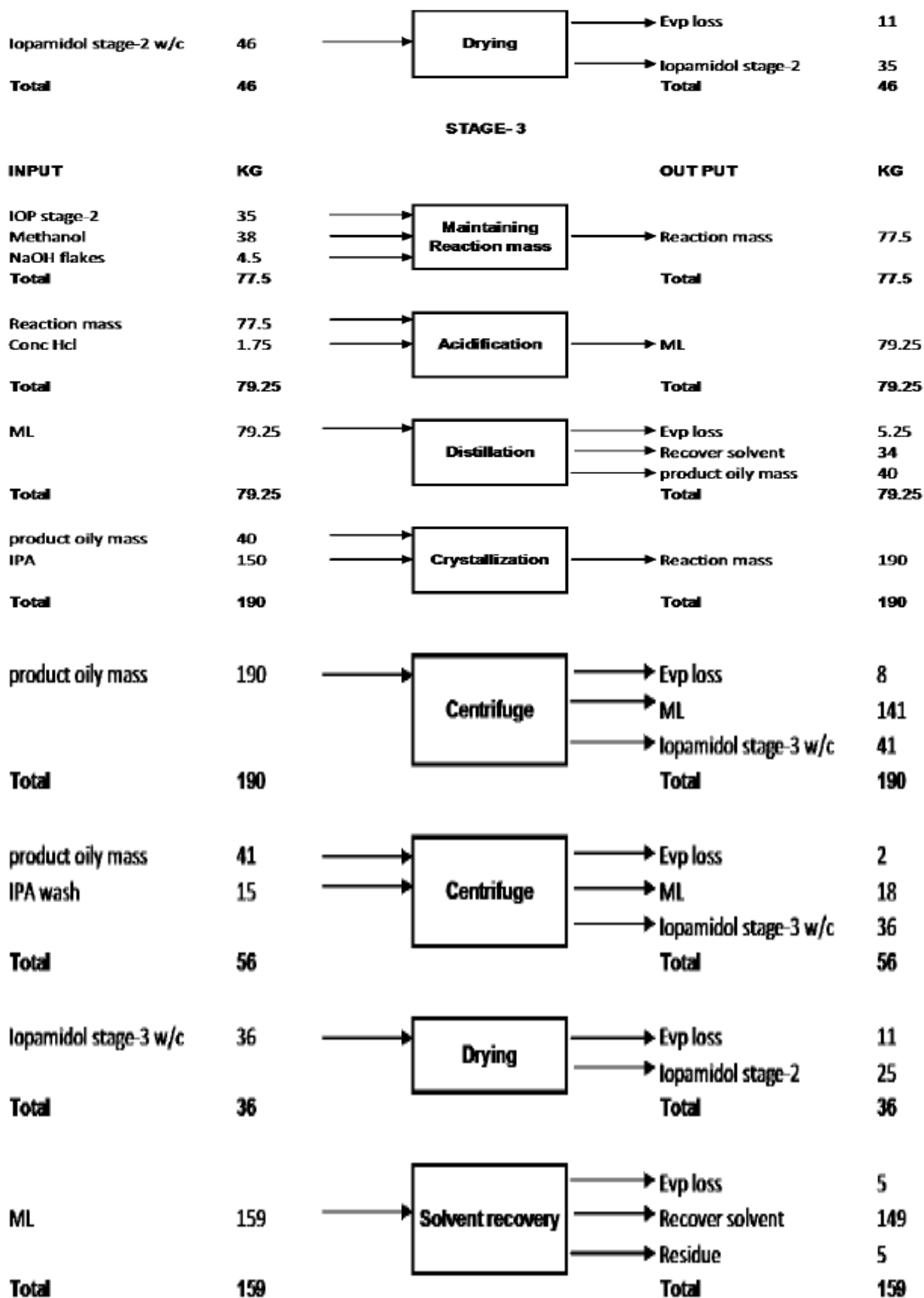
## CHEMICAL REACTION



**MATERIAL BALANCE**

INPUT	KG	STAGE-1		OUT PUT	KG										
ATIPA.Cl	25			Reaction mass	178.65										
DMA	50					Total	178.65								
Serinol	8.4							Reaction mass	203.65						
TEA	10									Total	203.65				
DMAP	0.25											ML	120		
Acetic anhydride	35													Iopamidol-1 wt cake	52
water	50														
<b>Total</b>	<b>178.65</b>			<b>Total</b>	<b>178.65</b>										
Reaction mass	178.65			Reaction mass	203.65										
water	25					Total	203.65								
<b>Total</b>	<b>203.65</b>					<b>Total</b>	<b>203.65</b>								
Reaction mass	203.65			Evp loss	31.65										
<b>Total</b>	<b>203.65</b>					ML	120								
ML	120							Iopamidol-1 wt cake	52						
<b>Total</b>	<b>120</b>			<b>Total</b>	<b>120</b>										
Iopamidol-1 wt cake	52			Evp loss	17										
<b>Total</b>	<b>52</b>					Iopamidol stage-1	35								
						<b>Total</b>	<b>52</b>								

INPUT	KG	STAGE-2		OUT PUT	KG		
Iopamidol stage-1	35			Reaction mass	82.5		
DMA	38					Total	82.5
APC	9.5						
<b>Total</b>	<b>82.5</b>			Total	300.5		
Reaction mass	82.5					Evp loss	4
IPA	200					ML	28.5
TBA	18						
<b>Total</b>	<b>82.5</b>			<b>Total</b>	<b>82.5</b>		
Wet cake	50			Evp loss	0.5		
IPA	1					ML	4.5
<b>Total</b>	<b>51</b>					Iopamidol stage-2 w/c	46
				<b>Total</b>	<b>51</b>		
ML	251			Evp loss	26		
<b>Total</b>	<b>251</b>					Recover IPA+DMA	216
				<b>Total</b>	<b>251</b>		

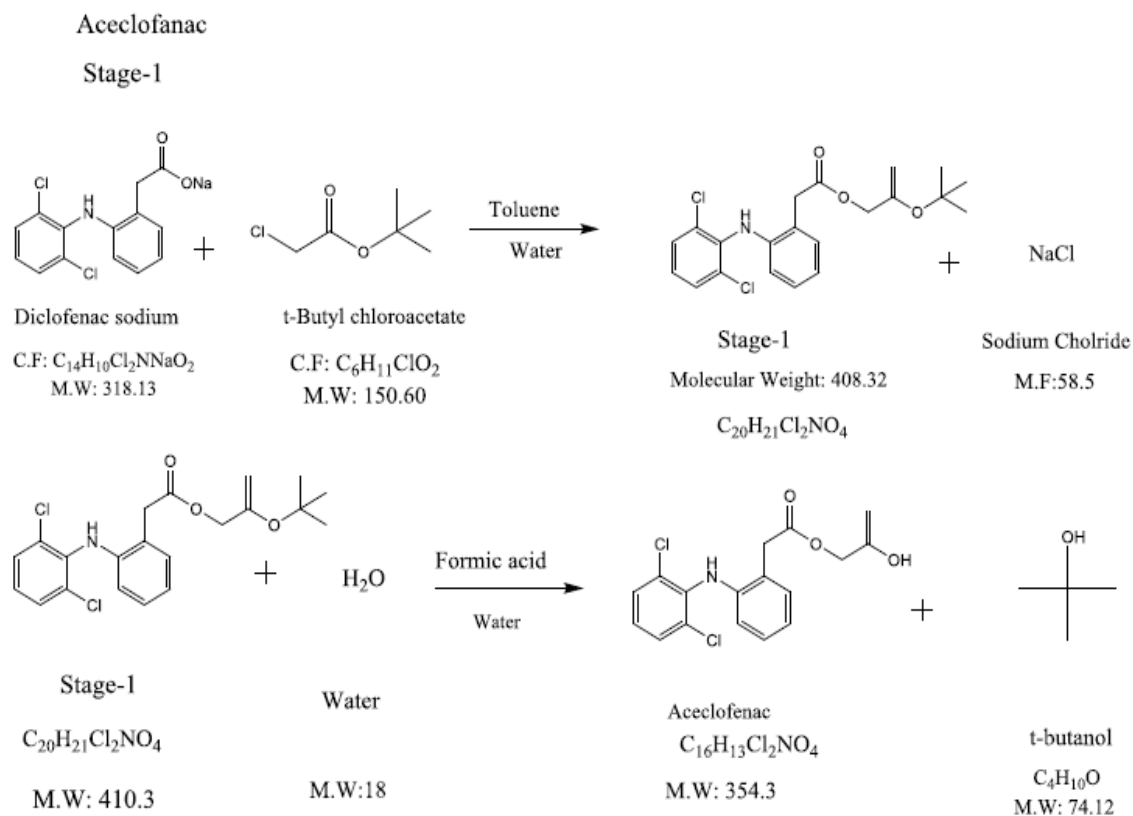


### 3. ACCELOFENAC

#### MANUFACTURING PROCESS

Tertiary butyl chloro acetate is condensed with Diclofenac sodium gives Aceclofenac ester. This ester gets hydrolyzed with formic acid gives Aceclofenac crude. Purification of Aceclofenac crude in toluene gives Aceclofenac pure.

#### CHEMICAL REACTION



#### MATERIAL BALANCE

INPUT	KG	PROCESS	OUTPUT	KG
Diclofenac sodium	0.976	<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 80px; height: 80px; display: flex; align-items: center; justify-content: center;"> <b>Stage-1</b> </div> </div>	Stage-1	1.438
t-butylchloro acetate	0.462		toluene recovered	0.76
toluene	0.8		toluene loss	0.04
<b>total</b>	<b>2.238</b>		<b>total</b>	<b>2.238</b>
Stage-1	1.438	<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 80px; height: 80px; display: flex; align-items: center; justify-content: center;"> <b>Stage-2</b> </div> </div>	aceclofenac	1
			t-butanol	0.188
			stage-1	0.05
			water	0.2
<b>total</b>	<b>1.438</b>		<b>total</b>	<b>1.438</b>

## **ANNEXURE-VII**

### **DETAILS OF TREATMENT SCHEME AND DISPOSAL METHODS**

The effluent will be segregated into two streams of 1. High COD/High TDS and 2. Low COD/Low TDS

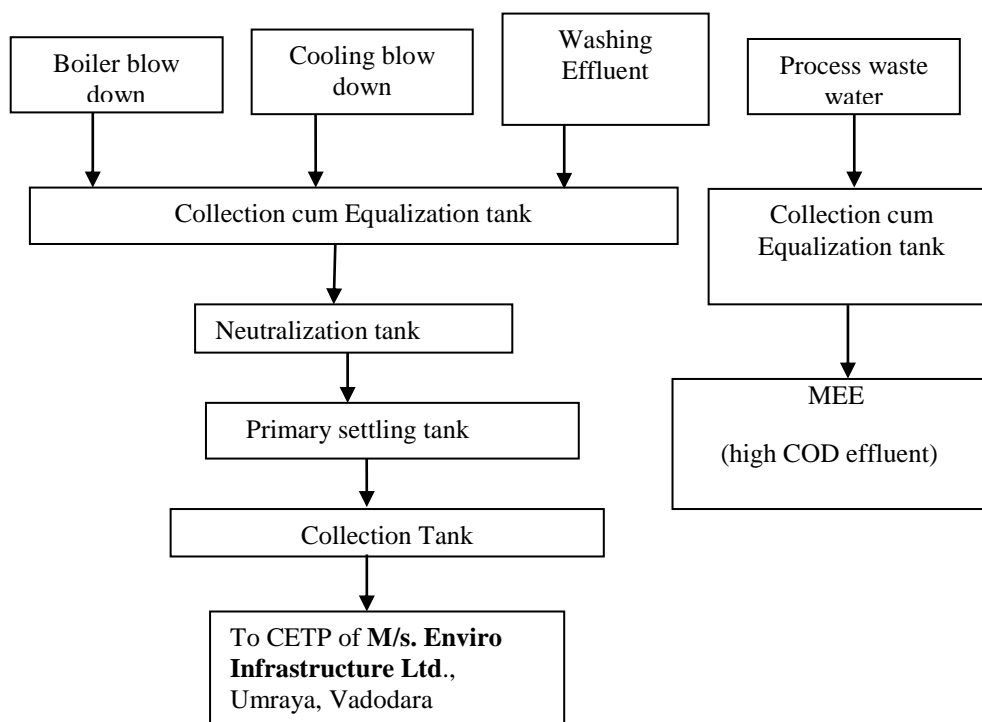
The High COD/High TDS stream from the process will be collected in collection cum equalization tank and will be neutralized. The stream from equalization tank will be sent to MEE for recovery. The condensate will be reused in process, whereas the MEE salt will be sent to TSDF site.

The low COD/low TDS effluent from the Boiler blow down, cooling tower blow down and washing will be collected in collection cum equalization tank, Equalized wastewater will be neutralized in neutralization tank by adding chemical, and brings pH within permissible limit. Flocc agents will be added to water and stirred in primary settling tank and floc will be allowed settling in primary settling tank for 1.5 hrs. Suspended solid settle will be removed on sludge drying bed, clarified wastewater pumped in aeration tank. This treated effluent will be discharged into CETP of **M/s. Enviro Infrastructure Co. Ltd.**, Umraya, Vadodara for final treatment after achieving CETP norms. Leachate from the sludge drying bed returns to equalization tank.

### **EQUIPMENT LIST OF ETP**

<b>Sr. No.</b>	<b>Name of unit</b>	<b>Qty.</b>	<b>Volume</b>
1.	Collection Tank	2	15 KLD
2.	Neutralization Tank	2	10 KLD
3.	Primary Settling Tank	1	15 KLD
5.	Final Collection Tank	1	20 KLD
6.	Multiple Effect Evaporator	1	30 KLD

### ETP FLOW DIAGRAM



### EXPECTED CHARACTERISTICS OF WASTEWATER BEFORE & AFTER TREATMENT

Sr. No.	Parameters	Unit	ETP inlet	ETP outlet
1	pH	pH scale	5-7	7-8
2	COD	mg/l	5000-7000	1000-2000
3	TDS	mg/l	3000-5000	3000-5000
4	TSS	mg/l	100-200	100-200
5	Ammonical Nitrogen	mg/l	15-30	10-15

**ANNEXURE-VIII**

**DETAILS OF HAZARDOUS WASTE GENERATION & DISPOSAL**

<b>Sr. No.</b>	<b>Type of Waste</b>	<b>Category</b>	<b>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>	<b>Method of Disposal</b>
1.	Residue & waste	28.1	--	5 MT/Month	5 MT/Month	Collection, Storage, Transportation, Disposal to TSDF site/ incineration/ Cement Industries
2.	Spent Catalyst/ Spent carbon	28.2	Whatever generated	2 MT/month	2.0 MT/Month	Collection, Storage, Transportation and sell to authorized re-processors/ cement industries for co processing.
3.	Discarded Containers	33.1	100 Nos./year	500 Nos./year	600 Nos./year	Collection, Storage, Transportation, Disposal to authorized recyclers.
4.	Crude Sodium Acetate	28.4	8 MT/Month	0	8 MT/month	Collection, Storage, Transportation, Disposal by incineration.
5.	MEE salt/ ETP Sludge	34.1	0	45 MT/month	45 MT/month	Collection, Storage, Transportation, Disposal to TSDF site for land filling.
6.	Distilled Solvents	--	0	50 MT/Month	50 MT/Month	Collection, Storage, and Sell to actual user.

**ANNEXURE-IX**

**DETAILS OF WATER CONSUMPTION, WASTEWATER GENERATION AND TREATMENT**

**TABLE 1: DETAILS OF WATER CONSUMPTION**

Sr.No.	Particulate	Existing water consumption in KL/day	Proposed water consumption in KL/day	Total water consumption in KL/day
1	Domestic	0.5	5	5.5
2	Industrial			
	Process	0.025	30	30.025
	Washing	0	15	15
	Cooling	0.5	10	10.5
	boiler	0.5	10	10.5
	gardening	0	5	5
	Total(Industrial)	1.025	70	71.025
	Total	<b>1.525</b>	<b>75* ( 27.5 recovered and 47.5 fresh )</b>	<b>76.525 (27.5 KLD (Recovered)+ 49.025KLD(Fresh))</b>

**DETAILS OF WASTE WATER GENERATION**

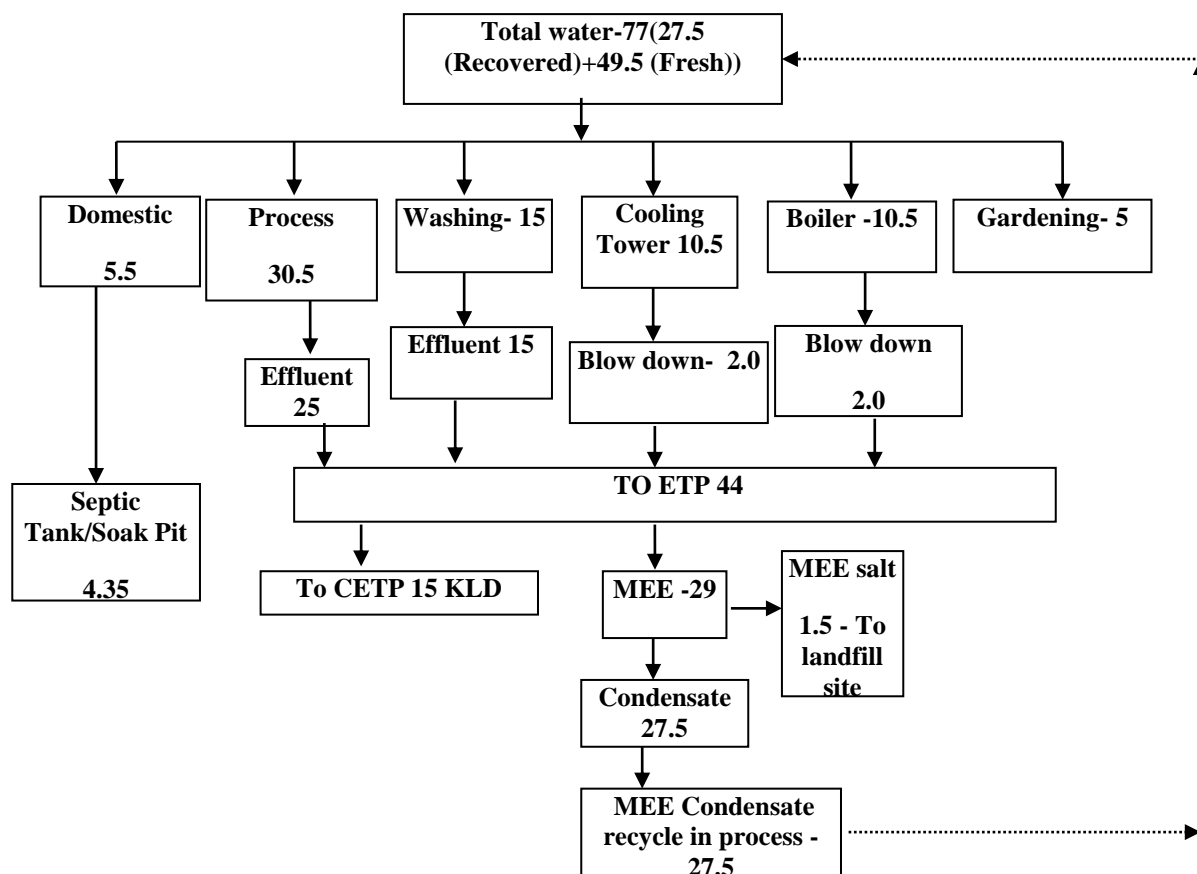
Sr.No.	Particulate	Existing Wastewater generation in KL/Day	Proposed wastewater generation in KL/day	Total wastewater generation in KL/day
1	Domestic	0.35	4	4.35
2	Industrial			
	Process	0	25	25
	washing	0	15	15
	Cooling	0	2	2
	Boiler	0	2	2
	Total(Industrial)	0	<b>44</b>	<b>44</b>
	total	<b>0.35</b>	<b>48</b>	<b>48.35</b>

Note: i) Domestic effluent will be disposed in soak pit system.

ii) Total industrial effluent will be treated in Effluent treatment plant. Out of 44 KLD effluent, high COD/high TDS effluent i.e.29 KLD will be sent to MEE, and remaining effluent i.e.15 KLD will be sent to CETP of M/s, **Enviro Infrastructure Ltd.** Umraya, Vadodara for final disposal.

iii) Condensate from MEE i.e. 27.5 KLD will be recycled in process and MEE salt will be sent to land fill site.

**WATER BALANCE DIAGRAM**



**Note:** All units are in KL/Day.

**ANNEXURE-X**

**DETAILS OF FLUE GAS EMISSION**

Sr. No.	Stack Attached To	Stack Height (M)	Type of Fuel	Air Pollution Control Measures	Parameter	Permissible Limit
1.	Existing Boiler- 0.8 T/hr	11	Wood-1.5 T/day	Cyclone separator	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/ Nm <sup>3</sup> 100 ppm 50 ppm
2.	Proposed Boiler- 1 TPH (2 nos.)	30 meter (Common)	Bio coal-4 MT/Day	Cyclone separator and Bag Filter	PM	150 mg/ Nm <sup>3</sup>
3.	Proposed Thermo pack 2 Lac Kcal/hr capacity		Furnace Oil-200 Liters/day	---	SO <sub>2</sub>	100 ppm
4.	Proposed DG set 50 KVA 2 nos.	9 meter	Diesel-100 Liters/day	Adequate stack height	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/ Nm <sup>3</sup> 100 ppm 50 ppm

**DETAILS OF PROPOSED PROCESS EMISSION**

Sr.No.	Stack Attached To	Stack Height (M)	Air Pollution Control Measures	Parameter	Permissible Limit
1	Acidic based Reaction	10	Alkali Scrubber	SO <sub>2</sub> , HCl,	40 mg/Nm <sup>3</sup> 20 mg/Nm <sup>3</sup>
2	Ammonia used reactor	10	Water Scrubber followed by acid Scrubber	NH <sub>3</sub>	175 mg/Nm <sup>3</sup>

**ANNEXURE-XI**

**LIST OF HAZARDOUS RAW MATERIAL**

<b>Sr.No.</b>	<b>Name of hazardous raw material</b>
1.	Ammonia
2.	Sulfuric acid
3.	Ammonium chloride
4.	Conc. HCl
5.	Nitro Amine
6.	Zinc
7.	Phosphoric acid
8.	Hydrogen gas
9.	Acetic acid
10.	Acetic anhydride
11.	Caustic flakes
12.	Iso Propyl Alcohol(IPA)
13.	Methanol
14.	Sodium Chloride
15.	Soda ash

**ANNEXURE-XII**

**PROPOSED TERMS OF REFERENCE**

As per standard TOR of organic manufacturing sector issued by MoEF&CC.

**ANNEXURE-XIII**

**CETP LETTER**



**ENVIRO INFRASTRUCTURE COMPANY LTD.**

Regd. Off. : Mazanine Floor, C/O Tarak Chemicals Ltd., ABS Tower, Old Padra Road, Vadodara - 07

Works : 612 B, ECP Canal Road, Vill. : Umaraya, Tal. : Padra, Dist. Vadodara - 391440

Ph. : +91 9099012369, 02662 - 244071 Fax : 02662 - 244055

CIN NO. : U45200GJ1996PLC030690

**TO WHOMSOEVER IT MAY CONCERN**

THIS IS TO CERTIFY THAT, **M/S J R CORPORATION** LOCATED AT PLOT NO. 1085/B, LAMDAPURA ROAD, AT. & PO. MANJUSAR, TALUKA SAVLI, DISTRICT VADODARA-391770, GUJARAT INDIA IS A MEMBER IN OUR COMMON EFFLUENT TREATMENT PLANT CAPACITY 4500 KLD. THEY HAVE BOOKED QUANTITY OF 15 KLD PER DAY.

FOR ENVIRO INFRASTRUCTURE CO. LTD

  
ATUL PATEL  
CHAIRMAN  
DIN NO. 00009587



PLACE: VADODARA

DATE: 25.08.2016

PROJECT PRE-FEASIBILITY REPORT  
ON  
EXPANSION PROJECT  
FOR  
SYNTHETIC API'S  
MANUFACTURING UNIT  
OF

M/s. J.R.CORPORATION

Located at:

Lamdapura Road,B/1085

Vill. Manjusar,Ta. Savli

Dist. Vadodara-391770,Gujarat

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## 1.0 EXECUTIVE SUMMARY

M/s. J.R.Corporation is engaged in manufacturing of Bulk drugs intermediates at Plot no. B/1085, Lamdapura road, Vill:Manjusar, Tal: Savli, Dist: Vadodara- 391 770 The unit is having valid Consolidated Consent & Authorization (CC&A) from Gujarat Pollution Control Board vide CC&A order no.: AWH-69376 with validity upto 10/02/2020 for manufacturing of Bulk drugs intermediates. The copy of CC&A is enclosed herewith as **Annexure-I**. They have now proposed to go for expansion by increasing existing production capacity and proposed new production capacity of Synthetic API's. As per EIA Notification dated 14th Sep, 2006 as amended from time to time, the project falls under as Category 'A' Project. The existing unit is engaged in manufacturing of Bulk drugs intermediates and production capacity is 2.6 MT/Month. The details of products are given below table 1.

**TABLE: 1**

### LIST OF PRODUCTS

Sr. No.	Name of Products	Existing Quantity in MT/Month	Proposed Quantity in MT/Month	Total Quantity in MT/Month
<b>EXISTING</b>				
1	Cellulose Acetate Phthalate-I plus p grade	1.5	0	1.5
2	Hydroxy propyl methyl cellulose phthalate USP grade(HPMCP)	1.1	0	1.1
3	Crude sodium Acetate(by production)	8	0	8
<b>PROPSOED</b>				
1.	Glimipride	0.0	2	2
2.	Carvedilol		0.5	0.5
3.	Alendronate sodium		2	2
4.	Mirtazepin		0.5	0.5
5.	Topiramate		1	1
6.	Losartan Potassium		1	1
7.	Lacidipine		0.5	0.5
8.	Granisetron		0.5	0.5
9.	Ondansetron		0.5	0.5
10.	Naltrexone		0.5	0.5
11.	Buprenorphine HCl		0.5	0.5
12.	Metoprolol Succinate		3	3
13.	Colesevelan HCl		0.3	0.3
14.	Montelukast sodium		0.5	0.5
15.	Desloratidine		0.6	0.6
16.	Levocetirizine dihydrochloride		0.5	0.5

17.	Duloxetine HCl		0.5	0.5
18.	Paroxetine HCl		0.4	0.4
19.	Diclofenac sodium		100	100
20.	Zonisamide		0.6	0.6
21.	Lacosamide		0.4	0.4
22.	Oxcarbazepine		0.6	0.6
23.	Aripiprazole		0.3	0.3
24.	Paliperidone		0.3	0.3
25.	Quetiapine		1	1
26.	Risperidone		0.5	0.5
27.	Balasalazide disodium		1.5	1.5
28.	Valacyclovir HCl		1	1
29.	Cinacalcet HCl		0.5	0.5
30.	Deferasirox		1	1
31.	Epinephrine		1	1
32.	Zolpidem tartrate		0.2	0.2
33.	Fesoterodine fumarate		1	1
34.	Pramipexole Dihydrochloride		1	1
35.	Rabeprazole sodium		0.7	0.7
36.	Rosuvastatin calcium		1	1
37.	Sitagliptin phosphate		1	1
38.	Sumatriptan Succinate		1	1
39.	Tamsulosin HCl		0.3	0.3
40.	Dextro methopran Hbr		2	2
41.	Captopril		1	1
42.	Pioglitazone HCl		0.5	0.5
43.	Fexofenadine HCl		3	3
44.	Entacapone		1	1
45.	Amoldipine Besylate		2	2
46.	Atovaquone		1	1
47.	Clinidipine		1	1
48.	Desvenlafaxine		1	1
49.	Devalproex sodium		1	1
50.	Donepezil HCl		0.3	0.3
51.	Dronedarone HCl		0.3	0.3
52.	Iopamidol & its derivatives		20	20
53.	Nebivolol		1	1
54.	Palonosetron HCl		2	2
55.	Pantoprazole sodium		1	1
56.	Saxagliptin Monohydrate		1	1
57.	Tapentadol HCl		1	1
58.	Venlafaxine HCl & derivative		1	1
59.	Zoledronic Acid		1.5	1.5
60.	Bethanechol chloride		1	1
61.	Nadifloxacin		0.5	0.5
62.	Paliperidone palmitate		0.5	0.5

63.	Pidotimod		2	2
64.	Apixaben		1	1
65.	Dofetilide		0.5	0.5
66.	Ivacaftor		1	1
67.	Oxybutynin chloride		2	2
68.	Pregabalin		3	3
69.	Agomelantine		0.5	0.5
70.	Aceelofenac		50	50
71.	Atenolol		0.5	0.5
72.	Valproic acid		3	3
73.	Sodium valproate		5	5
74.	Iavomilnacopran		1	1
75.	Milnacipran		0.7	0.7
76.	Diatrizoic acid		5	5
77.	TBEE		1	1
78.	R&D products		1	1
	<b>Total</b>	<b>0.00</b>	<b>252</b>	<b>254.6</b>

The expected cost of project is Rs. 5 Crores. The total plot area of the unit is 9765 sq.m. The green belt area will be 1000 sq.m. The unit is using Wood as fuel. The fuel consumption is 1.50 T/day for boiler. Existing fresh water consumption requirement is 1.525 KLD for industrial and domestic purpose. For proposed expansion, total water consumption will be 77 (27.5 KLD (Recovered) + 49.5KLD (Fresh)) for industrial and domestic purpose after proposed expansion. The existing connected load is 60 HP. Additional load will be 100 HP. It will be met through Madhya Gujarat Vij Company Ltd. In existing, Unit is using 1.5 T/day wood as fuel for boiler. After Proposed expansion, unit will be using bio-coal (4 MT/day) as a fuel for two boilers (1 TPH Each), furnace oil (200 Liters/day) thermo pack (2 Lakh K.cal/Hr.) and diesel (100 Liters/day) for two DG sets of 50 KVA. The total hazardous waste generation from proposed expansion will be Residue & waste- 5MT/Month, Spent Catalyst-2 MT/Month, Discarded Containers-600 Nos./year, Crude Sodium Acetate (8 MT/Month), Distilled solvents-50MT/Month and MEE salt/ETP Sludge-45MT/month.

## **2.0 INTRODUCTION**

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### **2.1 The Project**

M/s. J.R. Corporation is engaged in manufacturing of bulk drugs intermediates at Plot no. B/1085, Lamdapura road, Ta: savli, Dist: Vadodara- 391 770.

The list of products is provided in table 1.

### **2.2 Project Proponent**

The details of project proponent are given below in table.

**TABLE: 2**

**CONTACT DETAILS OF THE PARTNERS**

<b>Sr. No.</b>	<b>Name of Director</b>	<b>Designation</b>	<b>Address</b>	<b>Mobile No.</b>
1	Pawan Jain	Partner	B/365 shastrinagar, bhilwara, Rajasthan	9309242010
2	Shilpa Chaudhary	Partner	43 Gangotri residency, Gotri road, Vadodara	8140411000

The partners of the company have good experience in handling the production management, financial management and all the allied areas.

**2.3 Nature of project**

The existing unit is engaged in manufacturing of bulk drugs & intermediates. The existing production capacity is 2.6 T/Month. As per EIA notification 2006, the proposed project is falling under category 5(f).

**2.4 Market Feasibility**

The pharmaceutical industry in India is expanding at rate of 14% per annum. The share of Pharma industry in export has crossed almost 35% of value. This is likely to further increase in coming years. With this background in mind there will be good scope of drug intermediate sector also. The product selection in present project can fulfill requirement of several bulk drugs. The promoters will not have any problem in marketing their products.

**3.0 PROJECT DESCRIPTION**

---

**3.1 Type of project**

M/s. J.R. Corporation is engaged in manufacturing of bulk drugs intermediates at plot no. B/1085, Lamdapura road, Vill: Manjusar, Tal: Savli, Dist: Vadodara- 391 770.

**3.2 Project location**

The proposed expansion of production will be in existing site. It is approximately 20 km distance from Dist. Vadodara. The approximate geographical positioning of the project site is at Latitude: 22°28'0.84"N, Longitude: 73°12'39.90"E. The salient features of the location of the project site are presented in table 3.

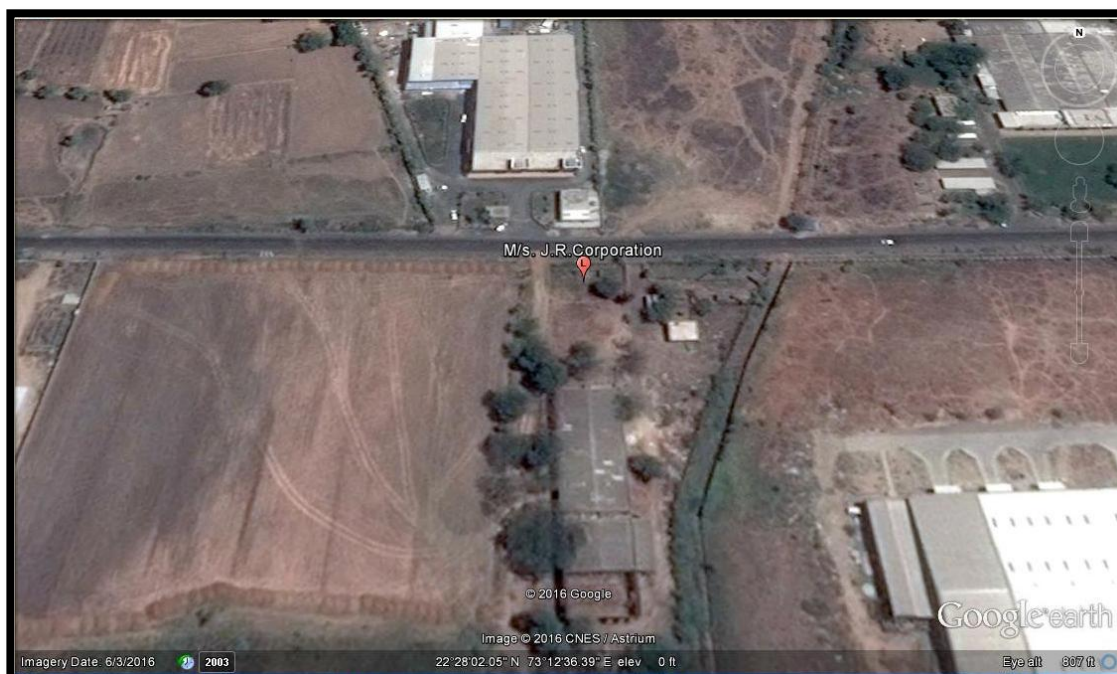
**TABLE: 3**

**SALIENT FEATURES OF THE PROJECT SITE**

Particulars	Details
Village	Manjusar
Taluka/ Tehsil	Savli
District	Vadodara
Approx. Geographical positioning	Latitude: 22°28'0.84" N Longitude: 73°12'39.90" E
Nearest City	Vadodara- 20 Km
Nearest Town	Savli- 8 Km
Nearest Highway	National Highway No. 8
Nearest State highway	GSH 158
Nearest Railway line/ Railway station	Vadodara
Nearest Airport/ Airbase	Vadodara
Protected Areas/ Sanctuaries	---

**FIGURE: 1**

**SATELLITE IMAGE OF THE PROJECT SITE**



**3.3 Site selection**

The project proponent is not considering any other alternative site for proposed expansion.

**3.4 Neighboring Industries**

The industry is proposed to be located in an area, which is already industrialized. The industries in the vicinity of the proposed project are given in the table 4.

**TABLE: 4**

**NEARBY INDUSTRIES IN THE VICINITY**

Sr. No.	Name of Industry	Address
1	M/s. Allchem Laboratories	Survey No. 1088/B/P, 1088/A Lamdapura road, Manjusar, Savli, Dist: Vadodara, Gujarat
2	M/s. Anugrah In Org P Ltd	Survey No. 1088/B , Lamdapura Road, Village Manjusar, Taluka Savli, Dist. Vadodara.
3.	M/s Gurunanak Chemicals Industries	Survey No. 663, Lamdapura road, Manjusar, Savli, Dist: Vadodara, Gujarat
4.	M/s. Universal Ester Ltd.	Plot No. 1088(B) Manjusar, Savli, Dist: Vadodara, Gujarat

**3.5 Size of project**

The existing unit is manufactured bulk drugs intermediates and production capacity is 2.6 MT/Month. The expected cost of proposed expansion of project is Rs.5 Crore. New Plant and machinery installations will also have to be acquired and installed. Environment Protection and safety systems have also been considered in planning the Cost Projection. Green belt development, provision of fire extinguishers etc. are also calculated. The below table shows the break-up of the proposed project cost.

**TABLE: 5**

**CAPITAL COST PROJECTION**

Sr. No.	Purpose	Proposed (Rs. In Crore)
1.	Land	Already done
2.	Building	1
3.	Plant and Machinery	2.25
4.	Q.A. Lab set up	0.5
a)	Effluent treatment Plant	0.5
b)	Safety Equipment (PPE, fire extinguishers, Ventilation, etc.)	0.35
c)	Green belt development	0.15
d)	Fire	0.25
	<b>Total</b>	<b>5</b>

**3.6 Process Technology**

The proposed products are “Synthetic API’s”. These are characterized for their physico-chemical properties. Process details like Process description, chemical reactions and mass balance for each product are as Annexure-VI.

### 3.7 Raw-Materials

The proposed products are Synthetic API's and the required raw materials will be purchased from the local/ Indian market. Details of raw-material consumption are given in Annexure-III.

### 3.8 Resource optimization/recycling and reuse

#### 3.8.1 Solvent Recovery

Unit will achieve solvent recovery more than 98%. The all condensers will be 2 stage condensers 1<sup>st</sup> attach to cooling tower and 2<sup>nd</sup> attached to chilled water circulation. The vent will be passed through carbon column and thus traces of solvents will get absorbed in carbon. Thus there will be zero VOC emission from the project.

### 3.9 Resource Requirements

#### 3.9.1 Land

The plot has been purchased by M/s. J.R. Corporation. The total plot area of the unit is 9765 Sq. m.

#### 3.9.2 Building

The new building will be constructed and the approximate requirement of construction materials is given table 6.

**TABLE: 6**

---

#### APPROXIMATE REQUIREMENT OF CONSTRUCTION MATERIALS

Sr. No.	Construction material	Proposed Quantity
1.	Bricks	Locally available construction material will be used in the project that will be transported by road transportation.
2.	TMT Steel	
3.	Kapchi	
4.	Cement	
5.	Sand	

#### 3.9.3 Power and Fuel

**TABLE: 7**

---

#### POWER AND FUEL REQUIREMENT

Sr. No.	Name	Requirement	Source
1	Wood – Existing	1.5 T/day	Local Market
2	Energy – Electricity Additional	100 HP	MGVCL
3	Bio Coal – Proposed	4 MT/Day	Local supplier
4	Furnace Oil – Proposed	200 Liters/Day	Local supplier
5	Diesel	100 Liters/Day	Local supplier

### 3.9.4 Water

The category wise bifurcation of the water requirement is given in Table 8. The source of water will be from Bore-well.

**TABLE: 8**

#### WATER CONSUMPTION

Sr. No.	Particulate	Existing water consumption in KL/day	Proposed water consumption in KL/day	Total water consumption in KL/day
1	Domestic	0.5	5	5.5
2	Industrial			
	Process	0.025	30	30.025
	Washing	0	15	15
	Cooling	0.5	10	10.5
	boiler	0.5	10	10.5
	gardening	0	5	5
	Total(Industrial)	1.025	70	71.025
	Total	<b>1.525</b>	<b>75* ( 27.5 recovered and 47.5 fresh )</b>	<b>76.525 (27.5 KLD (Recovered)+ 49.025KLD(Fresh))</b>

### 3.9.5 Manpower

The manpower required for the project as well as during the construction/ commissioning activities will be employed from the local area.

**TABLE: 9**

#### MAN POWER REQUIREMENT

Phase of project	Type of labor	No. of workers (Proposed Scenario)
During construction	Contractual	20
During commissioning	Contractual	30
During operations	Managerial	10
	Skilled	20
	Un-skilled	40

### 3.10 Mitigation Measures & EMP

Based on overall manufacturing & operation activities, the mitigation measures have been proposed by the company for the control of the anticipated pollution load.

#### 3.10.1 Wastewater Management

##### 3.10.1.1 Wastewater Generation

The category-wise bifurcation of the anticipated wastewater generation details is given in Table 10.

TABLE: 10

WASTEWATER GENERATION

Sr. No.	Particulate	Existing Wastewater generation in KL/Day	Proposed wastewater generation in KL/day	Total wastewater generation in KL/day
1	Domestic	0.35	4	4.35
2	Industrial			
	Process	0	25	25
	washing	0	15	15
	Cooling	0	2	2
	Boiler	0	2	2
	Total(Industrial)	0	<b>44</b>	<b>44</b>
	total	<b>0.35</b>	<b>48</b>	<b>48.35</b>

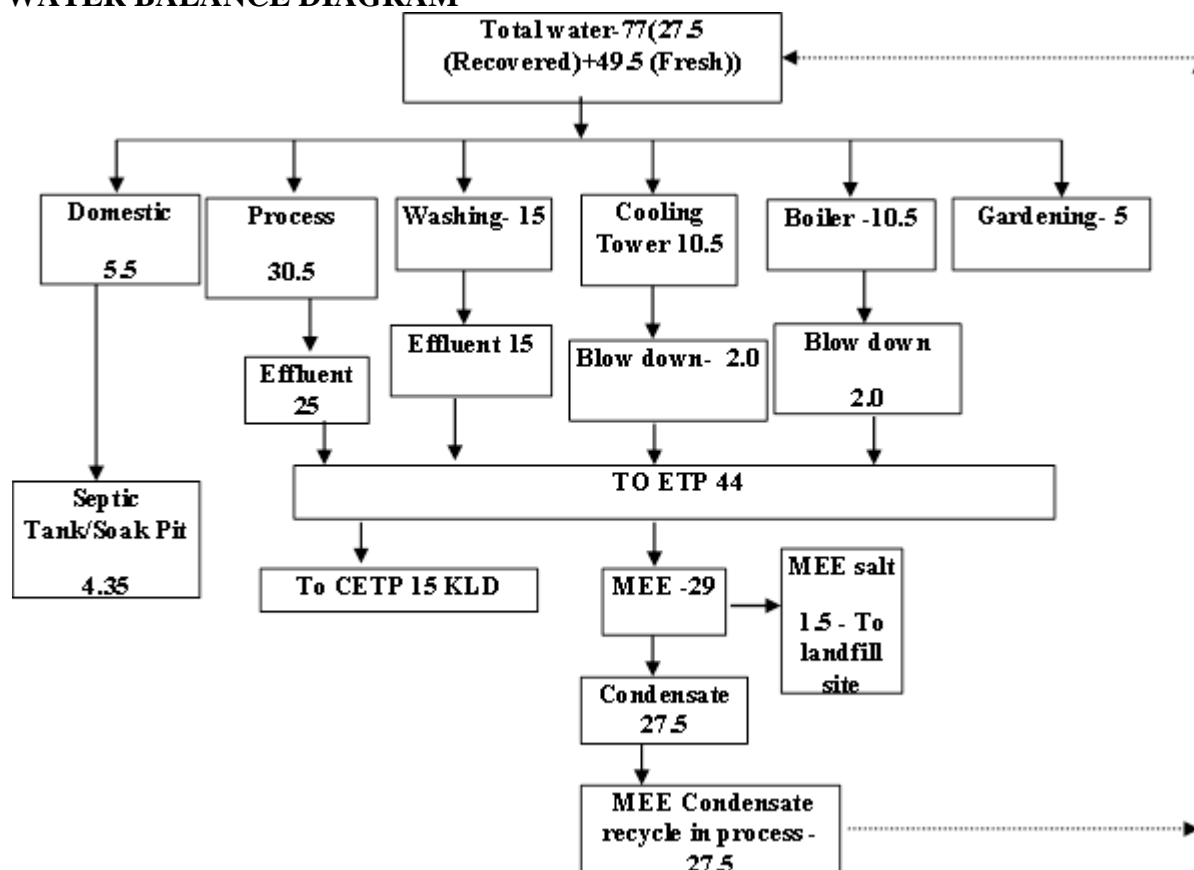
Note: i) Domestic effluent will be disposed in soak pit system.

ii) Total industrial effluent will be treated in Effluent treatment plant. Out of 44 KLD effluent, high COD/high TDS effluent i.e.29 KLD will be sent to MEE, and remaining effluent i.e.15 KLD will be sent to CETP of M/s, **Enviro Infrastructure Ltd.** Umraya, Vadodara for final disposal.

iii) Condensate from MEE i.e. 27.5 KLD will be recycled in process and MEE salt will be sent to land fill site.

FIGURE: 2

**WATER BALANCE DIAGRAM**



Note: All units are in KL/Day.

**3.10.1.2 Wastewater Characteristics**

Industrial wastewater will be generated from process, washing, cooling tower blow down and boiler blow down. The expected characteristics of industrial wastewater are provided in Table 11.

TABLE: 11

**CHARACTERISTICS OF WASTEWATER**

Sr. No.	Parameters	Unit	ETP inlet	ETP outlet
1	pH	pH scale	5-7	7-8
2	COD	mg/l	5000-7000	1000-2000
3	TDS	mg/l	3000-5000	3000-5000
4	TSS	mg/l	100-200	100-200
5	Ammonical Nitrogen	mg/l	15-30	10-15

### **3.10.1.3 Wastewater Treatment & Disposal**

The effluent will be segregated into two streams of 1. High COD/High TDS and 2. Low COD/Low TDS

The High COD/High TDS stream from the process will be collected in collection cum equalization tank and will be neutralized. The stream from equalization tank will be sent to MEE for recovery. The condensate will be reused in process, whereas the MEE salt will be sent to TSDF site.

The low COD/low TDS effluent from the Boiler blow down, cooling tower blow down and washing will be collected in collection cum equalization tank, Equalized wastewater will be neutralized in neutralization tank by adding chemical, and brings pH within permissible limit. Flocc agents will be added to water and stirred in primary settling tank and floc will be allowed settling in primary settling tank for 1.5 hrs. Suspended solid settle will be removed on sludge drying bed, clarified wastewater pumped in aeration tank. This treated effluent will be discharged into CETP of **M/s. Enviro Infrastructure Co. Ltd.**, Umraya, Vadodara for final treatment after achieving CETP norms. Leachate from the sludge drying bed returns to equalization tank.

**TABLE: 12**

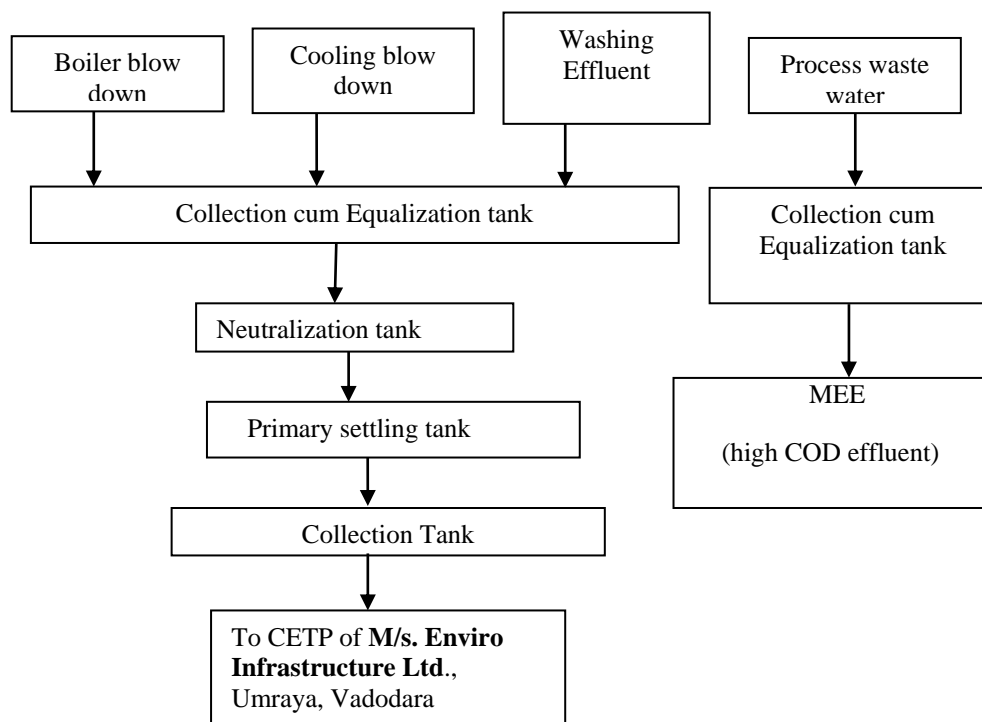
#### **EQUIPMENTLIST OF ETP**

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<b>Sr. No.</b>	<b>Name of unit</b>	<b>Qty.</b>	<b>Volume</b>
1.	Collection Tank	2	15 KLD
2.	Neutralization Tank	2	10 KLD
3.	Primary Settling Tank	1	15 KLD
5.	Final Collection Tank	1	20 KLD
6.	Multiple Effect Evaporator	1	30 KLD

FIGURE: 3

**EFFLUENT TREATMENT PLANT**



**3.10.2 Gaseous emissions & control**

**3.10.2.1 Flue gas emissions**

There will be flue gas emission from existing Boiler and proposed Boiler (2nos.) and Thermo pack. Wood, Bio-coal and Furnace oil will be used as fuel for utility. The fuel consumption detail and air pollution control measures are covered under table 13.

TABLE: 13

**FLUE GAS EMISSIONS**

Sr. No.	Stack Attached To	Stack Height (M)	Type of Fuel	Air Pollution Control Measures	Parameter	Permissible Limit
1.	Existing Boiler-0.8 T/hr	11	Wood-1.5 T/day	Cyclone separator	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/ Nm <sup>3</sup> 100 ppm 50 ppm
2.	Proposed Boiler-1 TPH (2 nos.)	30 meter (Common)	Bio coal-4 MT/Day	Cyclone separator and Bag Filter	PM	150 mg/ Nm <sup>3</sup>
3.	Proposed Thermo pack 2 Lac Kcal/hr capacity		Furnace Oil-200 Liters/day		---	SO <sub>2</sub>
4.	Proposed DG set 50 KVA 2 nos.	9 meter	Diesel-100 Liters/day	Adequate stack height	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/ Nm <sup>3</sup> 100 ppm 50 ppm

### 3.10.2.2 Process emissions

The process emissions from the proposed manufacturing activities are given in Table 14.

**TABLE: 14**

#### PROPOSED PROCESS EMISSIONS

Sr. No.	Stack Attached To	Stack Height (M)	Air Pollution Control Measures	Parameter	Permissible Limit
1	Acidic based Reaction	10	Alkali Scrubber	SO <sub>2</sub> , HCl,	40 mg/Nm <sup>3</sup> 20 mg/Nm <sup>3</sup>
2	Ammonia used reactor	10	Water Scrubber followed by acid Scrubber	NH <sub>3</sub>	175 mg/Nm <sup>3</sup>

### 3.10.3 Hazardous/ Non-hazardous waste management

The following type of hazardous waste will be generated from the operational activities. All the waste will be stored separately in a designated storage area.

**TABLE: 15**

#### DETAILS OF HAZARDOUS WASTE

Sr. No.	Type of Waste	Category	Existing Quantity	Proposed Quantity	Total Quantity	Method of Disposal
1.	Residue & waste	28.1	--	5 MT/Month	5 MT/Month	Collection, Storage, Transportation, Disposal to TSDF site/ incineration/ Cement Industries
2.	Spent Catalyst/ Spent carbon	28.2	Whatever generated	2 MT/month	2.0 MT/Month	Collection, Storage, Transportation and sell to authorized re-processors/ cement industries for co processing.
3.	Discarded Containers	33.1	100 Nos./year	500 Nos./year	600 Nos./year	Collection, Storage, Transportation, Disposal to authorized recyclers.
4.	Crude Sodium Acetate	28.4	8 MT/Month	0	8 MT/month	Collection, Storage, Transportation, Disposal by incineration.
5.	MEE salt/ ETP Sludge	34.1	0	45 MT/month	45 MT/month	Collection, Storage, Transportation, Disposal to TSDF site for land filling.
6.	Distilled Solvents	--	0	50 MT/Month	50 MT/Month	Collection, Storage, and Sell to actual user.

In addition to the provision of above, the unit will ensure proper management for hazardous waste as below:

- Transportation of hazardous waste to the TSDF Site will be governed as per the guidelines and accompanied with Form-9.
- Annual returns of the disposal of wastes in Form-4 and Form-13 will be submitted regularly to the local office of the GPCB.

#### **3.10.4 Noise Control & Odour**

Ear plugs will be provided to the operating personnel in boiler room.

The following steps will be taken for odour control.

- Raw-material feeding will be carried out by pumps.
- All reactions will be taken in closed reactor system.
- Roof top ventilation will be provided in the entire plant area.
- Regular monitoring will be done of piping and fittings for checking of any leakages.

#### **3.10.5 Storage, Handling and Transport of Hazardous Chemicals**

The storage and mode of transport of chemicals will be done as per detailed MSDS and chemical hazards guide (NIOSH) for the hazardous chemicals.

Few chemical to be used in the proposed activities are listed as 'Hazardous Chemicals' as per the Schedule-1 of the MSIHC Rules, as amended in 2000.

#### **3.10.6 Health and Safety measure**

Few chemical to be used in the proposed activities are listed as 'Hazardous Chemicals' as per the Schedule-1 of the MSIHC Rules, as amended in 2000.

Physical hazards may manifest as fires, explosions, excessive temperatures, or the release of large volumes of gas or toxic or flammable gases or vapors. According to Schedule 2 & 3 of MSIHC Rules, Below mentioned is the summary proposed safety measures to be taken at site for control of anticipated hazards.

### **4.0 SITE ANALYSIS**

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#### **4.1 Connectivity**

The site is located at plot no. B/1085, Lamdapura road, Vill: Manjusar, Ta: savli, Dist: Vadodara- 391 770 in the state of Gujarat. The site is 20 km from Vadodara town. The land and Infrastructure is already available. And the raw material is easily available through the easy transport via road connectivity. The district headquarter has railway station. The site is in the existing unit compound.

#### **4.2 Land use and land ownership**

The proposed project site is into Manjusar Village of Vadodara district in state of Gujarat which is meant for this type of industries. The approximate geographical positioning of the project site is at Latitude: 22°28'0.84" N and Longitude: 73°12'39.90" E. It has an average elevation of 41 m. The land is at plot no. B/1085, Lamdapura road, Vill:Manjusar, Ta: Savli, Dist: Vadodara- 391 770 in the state of Gujarat. The total plot area of the unit is 9765 Sq.m.

Land ownership is with project proponents.

#### **4.3 Existing Land use**

The proposed project site is located at plot no. B/1085, Lamdapura road, Vill:Manjusar, Ta: savli, Dist: Vadodara- 391 770 in the state of Gujarat

#### **4.4 Existing Infrastructure**

The plant is located near GIDC Savli.

#### **4.5 Soil Classification**

The soils of the district are derived from the Deccan trap which is main rock formation of the district. The soil of the district can be classified as light, medium and heavy according to depth, texture and location. There is sandy loam to loamy in texture, brownish black in color.

#### **4.6 Climate data**

For Baseline Study, meteorological data for study period between the March 2015 to May 2015. The maximum and minimum as well as relative humidity for a period of March 2015 to May 2015 are presented in table 16

**Table 16**

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#### **Micro metrological Data**

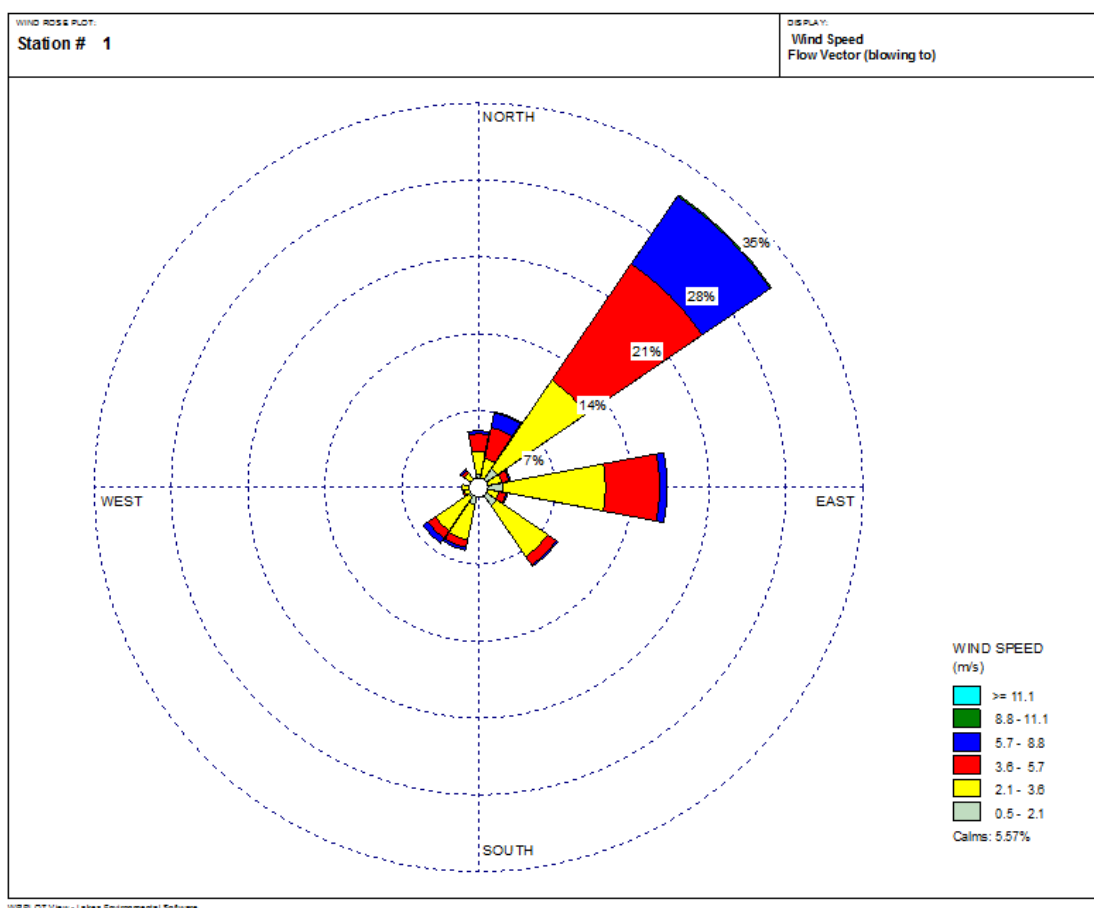
**(Data from Indian Meteorological Department, Baroda)**

<b>Month</b>	<b>Temperature(°C)</b>		<b>Humidity (%)</b>		<b>Rain fall (mm)</b>	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
March-15	41	17	57	32	012.1	00
April-15	41.4	22.4	67	30	006.9	00
May-15	42.7	27.0	75	29	0.0	00

Based on the site specific metrological data, wind rose has been prepared for the post monsoon season period from March 2015 to May 2015. The wind rose prepared from same data is shown at figure 4.

FIGURE: 4

WIND ROSE



4.7 Social Infra structure

The Manjusar village falls at Dist. Vadodara of Gujarat. It is positioned on the bank of River Vishwamitri. It is situated to South of Anand Dist. and to the North of Vadodara. Manjusar is largely an industrial area dominated by small scale industries, Medium scale industries, and large scale industries.

Infrastructure like Airport is at the distance of 15 km in South-West direction. Nearest habitation is Vadodara Town, 20 km away from project site in South direction. All the required infrastructure facilities are available in this town. National highway no.8 is 11.5 km away in North-west direction from project site.

5.0 PLANNING BRIEF

5.1 Planning concept

Manjusar is largely an industrial area dominated by small scale, Medium scale and large scale industries.

Now the unit has proposed to manufacture bulk drugs and intermediates (2.6 MT/Month)

Govt. agencies provide many basic facilities like uninterrupted water supply, power and road network.

### **5.2 Population projection**

As per provisional reports of Census India, Population of Vadodara in 2011 is 4,165,626 of which male and female are 2,153,736 and 2,011,890 respectively. The sex ratio of Vadodara city is 934 per 1000 males.

In education section, total literates in Vadodara city are 2,893,080 of which 1,614,087 are males while 1,278,993 are females. Average literacy rate of Vadodara city is 78.92%

### **5.3 Land use planning**

The proposed project is established in Village Manjusar of Vadodara district. This is not a prime agriculture land.

### **5.4 Assessment of Infrastructure Demand**

M/s. J.R. Corporation is get water from Own bore-well.

The unit has existing 100 HP connected load from MGVCL. No additional load will be required for proposed activity. The transportation facilities will also expect to improve due to increase in the movement of workers and raw material and finished products.

### **5.5 Amenities**

The available basic amenities are as under:

#### **(A) Education Facilities:**

Education Facilities are available and the literacy rate is about 45.67 % within 5 km periphery. All the villages have a minimum of one primary school.

#### **(B) Medical Facilities:**

The medical facilities are available in satisfactory amount in study area. These facilities are available in form of child welfare center, primary health sub center, and allopathic dispensary, maternity & child welfare centers, registered private medical practitioners and family welfare Centre within the range.

#### **(C) Drinking water Facilities & Power Supply:**

All the villages have potable water supply and in 100% area the drinking water is supplied through bore-wells. All the villages have power supply facilities in the study region.

#### **(D) Post, Telegraph & Telephone facilities:**

The information collected clearly indicates that the infrastructural facilities are provided by respective government agencies for the development of this area. For communication purpose, post office and phones are available in most of the villages. The villages having non-availability of these facilities can get these facilities within 5-10km distance.

**(E) Transport Facilities:**

Bus services are available in all the villages of the study region within 5 km area and are the most preferable mode of transport in the region. Auto-rickshaw is also used as transport facility. Villages are connected with paved roads.

Source: 2001, Census.

**6.0 PROPOSED INFRASTRUCTURE**

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**6.1 Processing Area**

The process area will cover plant area, raw material storage area, hazardous waste storage area and utilities. The process area covered by the unit at ground level will be 482.5 sq. m.

**6.2 Non Processing Area**

The non process area will cover Admin Building, and security cabin. The non process area covered by unit at ground level will be 262 sq. m.

**6.3 Green Belt Area**

The proposed greenbelt area is 4618 sq. m. Species like Baval, Kadam, Bili, Neem, Gulmahor, Ashoka, Ambo, Badam, Pipro, and Vadetc are suggested for plantation. There will be provision of budget of 0.5 lakh rupees for green belt development .The unit will plant 500 trees and shrubs in green belt area.

**6.4 Social Infrastructure**

The availability of basic amenities is covered as under:

- (A) Training & Education: All the employees will be trained and educated periodically about the hazardous nature of chemicals used in the process. Also, training for firefighting, work permit system, first aid, safe handling of hazardous chemicals and integrating safety, in all activities.
- (B) Medical facility: Pre-employment medical checkup at the time of employment. In order to safe guard the health of the employees, all the employees undergo periodic health checkup. Drinking water: There will be provision of Aqua
- (C) Guard/R.O. at different places to provide purified water for drinking purpose.
- (D) Transportation: The unit will provide basic transportation facility for workers.
- (E) Telegraph & Post: There will be provision of telephone, fax & internet facility.
- (F) Power supply: The unit has existing 100 HP connected load form MGVCL. No additional load will be required for proposed activity.

**6.5 Connectivity**

The Manjusar area is very well connected with both National Highway No.8 and State Highway No.188 and it is near to Vadodara about approx. 15 Km.

## 6.6 Drinking water Management

The source of water is already availability from existing Bore-well and the same is adequate and satisfactory. The unit has proposed 5.0 KL/Day water for domestic purpose.

## 6.7 Sewage system

The sewage will be treated in soak pit and the overflow of it will be disposed into soak pit system.

## 6.8 Industrial waste management

The hazardous waste like used oil, ETP sludge, Discarded Containers, Spent Carbon and distillation residues will be generated from proposed project activity. The hazardous waste management and disposal is shown in table 15.

## 6.9 Solid waste management

The record of non-hazardous solid waste like, Fiber board drum, Polyethylene bag, wooden waste etc. will be mentioned.

## 6.10 Power requirement & supply

The unit has existing 100 HP connected load form MGVCL. No additional load will be required for proposed activity.

## 7.0 REHABILITATION AND RESETTLEMENT(R &R) PLAN

The proposed project is located in Manjusar village, Tal. Savli, Dist. Vadodara. There will be no any human settlement affected by proposed project.

## 8.0 PROJECT SCHEDULE & COST ESTIMATES

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### 8.1 Project implementation Schedule

Table 17

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#### Project implementation schedule

Project implementation schedule after getting NOC from GPCB		
Sr. No.	Activity	Required Period
1.	Civil work	Immediately after getting NOC
2.	Procurement of machinery	1 month after getting NOC
3.	Eraction& installation of machinery	Immediately after competition of activity no.2
4.	Trial of machinery &equipment	Within 1 months after competition of activity no.3
5.	Commercial activity	1 months after competition of activity no.4

### 8.2 Estimated project cost

Total project cost is Rs. 20 Crore for this proposed project.

## **9.0 ANALYSIS OF PROPOSAL**

All the manpower is utilized from local region around Manjusar and Savli. Company shall also try to provide indirect employment opportunities by availing local contract services during transportation during operational phase.

The company intends to donate 5 % of the profit to agencies like NGOs or social welfare societies for projects carried out in nearby village for their welfare and upliftment.