JUBILANT INGREVIA

GPCB ID NO. 22119
April-16, 2022

Reference: JVL / EHS/ GPCB/ 20-21/11

To,
The Director,
Ministry of Environment, Forests & Climate Change
Regional Office (Western Region)
Kendriya Paryavaran Bhavan,
Link Road No.3, E-5, Ravi Shankar Nagar,
Bhopal - 462 016 (M.P.)

Subject: Submission of Environmental Statement Form – 'V' for the year 2021 - 22

Dear Sir,

Please find enclosed herewith Environmental Statement (Form - V) of our unit for the year 2021 – 22 along with EC compliance.

Thanking you,

Yours truly
For JUBILANT INGREVIA LIMITED

16/4/22

Authorized Signatory
Gurish Khosla
Unit Head
Encl:

1. Form 'V'
2. Annexure A, B & C
3. Analysis reports of treated effluent & stacks.
4. Annexure D EC/CCA compliance report

S.R. Meeteva
16/04/2022
G. P. C. Board
GERI Compound
Race Course, Vadodara.

CC: 1) **Regional Officer -Vadodara,**
Gujarat Pollution Control Board,
GERI Compound Race Course Circle.
Vadodara – 382010.
2) **Unit Head -Vadodara,**
Gujarat Pollution Control Board,
Paryavaran Bhavan, Sector-10A,
Gandhinagar-382021.

FORM NO.A

F O R M - V
(See Rule 14) *

From:
JUBULANT INGREVIA LIMITED
BLOCK – 133, SAVLI – JAROD ROAD
VILLAGE – SAMLAYA, TALUKA – SAVLI
DISTRICT – VADODARA
GUJARAT

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

Environment Statement for the financial year ending the 31st March 2022.

PART – A

(i)	Name and address of the owner / Occupier of the industry operation Or process	:	Shri Anant Pandey (Whole time Director) 1A, Sector 16A Institutional area, Noida UP
(ii)	Industry Category Primary – (STD Code) Secondary – (STD Code)	:	134 / SIA / IMO / 2012
(iii)	Production capacity units	:	Pl. Refer Annexure "C"
(iv)	Year of establishment	: :	February, 1997(Jubilant Organosys Ltd.) October, 2010 (Jubilant Life Sciences Ltd) February,2021 (Jubilant Ingrevia Limited)
(v)	Date of the last Environmental Statement submitted	:	10th May, 2021 for Jubilant Ingrevia Limited.

Submission of Environmental statement is in accordance with the provision Rules – 14 of the Environment (Protection), amendment Rules, 1993 of the Environment (Protection) Act, 1986 (29 of 1986) published vide, notification dated 22-4-1993 GSR. 386 (E) in the Gazette of India – Extraordinary – Part II section – 3 subsection (I), no. 155 dated 28-4-1993 by the ministry of Environment and Forest, Government of India; read with the notification dated 13-3-1993 GSR 329(E), of the Gazette of India- Extraordinary Part –II Section – 3 subsection (I) No. 120 dated 13-3-1993.

Every Person carrying on an industry, operation or process requiring Consent under section – 25 of the Water (Prevention & Control of Pollution) Act, 1974 (6 of 1974) or under Section – 21of the Air (Prevention & Control of pollution) Act, 1981 or both or authorization under the Hazardous Waste (Management and Handling) Rules, 1989 published under the Environment (Protection) Act, 1986 (29 of 1986) shall submit an Environmental Statement for the financial year ending the 31st March in Form V to the concerned State Pollution Control Board on or before the thirtieth day of September every year, beginning 1993.

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PART – B

Water and Raw material consumption

(1) Water Consumption M3/day

Process -	13.0	M3 /day
Cooling-	72.0	M3 / day
Domestic-	7.4	M3 / day
Gardening-	56.0	M3 /day
TOTAL-	148.4	M3 / day

Name of Product	Process water consumption per unit of product output	
	During the Previous Financial year	During the current financial year
	(1)	(2)
(1)		
(2)	Please Refer Annexure – "A"	
(3)		

(ii) Raw Material Consumption

* Name of raw material	Name of product Consumption of raw material per unit of output	
	During the Previous Financial year	During the current financial year
	Please Refer Annexure – "B"	

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

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PART – C

Pollution discharged to environment / unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants Discharged (Mass/day)	Concentration of pollutants in discharged (Mass/volume)	Percentage of variation from prescribed standards with Reasons
(a)	Water	Analysis reports are attached herewith	
(b)	Air	Analysis reports are attached herewith	

PART – D

HAZARDOUS WASTES

(As specified under Hazardous Waste (Management and Handling) Rules, 2016)

Hazardous Waste			Total Quantity (MT)	
			During the previous Financial year	during the current financial year
(a)	Process Waste.		20.32 MT	46.625 MT
(b)	Land filling Waste (From sludge drying bed)		5.4 MT	15.765 MT
(c)	(1)	Quantity recycled or re-utilized (Used Oil)	0.1 MT	0.0 MT
		Discarded Containers	12.4 MT	16.76 MT

The unit has been granted CCA i.e. Consolidated Consent and Authorization for hazardous waste disposal by GPCB on 4TH February-2021, in the name of Jubilant Ingrevia limited. The CCA is valid up to 30th September 2027.

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PART – E

Solid Waste

		Total Quantity (Kg)	
		During the previous Financial year	during the current financial year
(a)	From process	Nil	Nil
(b)	From pollution control facility (ETP) (From sludge drying bed)	Nil	Nil
(c)	(1) Quantity recycled or re-utilized Within the unit		
	(2) Solid (TSDF)	5.4 MT	15.765 MT

PART – F

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

Process waste generated from the plant is collected in drum as well as solid bags and then disposed to RSPL- Panoli/ BEIL- Ankleshwar for pre-processing to co-processing. Solid waste from ETP sludge drying beds is collected into bags and then sent to Nandesari Environment Control Limited Facility (NECL) - GIDC Nandesari (Survey no. 519/P), district Vadodara. This solid waste is generated as a result of Primary Treatment of Effluent in ETP.

PART – G

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

1. Installation of 15 KLD Sewage treatment plant and recycle the treated water to gardening purpose.
2. Upgradation of Utility RO plant to recycle 20 KLD of RO reject in process and reduce 20 KLD water consumption in utility process
3. Installation of steam condensate recovery system for recycle condensate to boiler.
4. Recycling of Reactor Jacket Water in to Cooling tower.
5. Recycling of Condensate water in to cooling tower.
6. A total of 1300 no's of tree i.e. Coconut- 129 nos. Gulmohar - 120, Neem – 100, Saptapni-110, Saru – 40, Bogan Wale – 250, Palto farm – 50, Kali Haran – 20 nos. tree have been planted across the unit.
7. 45000 Trees Planted as Corporate Social Responsibility during the year.
8. Drinking Water RO Reject water is used in the scrubber of Boiler & HAG.
9. Utilization of 6500 KL Rain Water collected in Rain Water reservoir during Monsoon.

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PART – H

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

1. Storm Line construction work is under progress for prevention of Rain Water contamination in Plant Premises.

2. Installation work of Wet scrubber in Dry Plant is under progress for increasing the efficiency of Air Pollution Control Measures in Dry Plant.

3. The unit has installed **REVERSE OSMOSIS PLANT** (capacity 50.0 M3/Day) at the effluent treatment plant of Jubilant Life sciences Limited. The RO Plant is installed for further treatment of ETP Outlet. The permeate of R.O. plant is utilized in cooling tower for makeup purpose.

4. 6500 KL Rain Water Collected in Rain Water reservoir (Cap.3000KL) and utilized in plant.
5. As a part to improvement the green belt of the unit, the unit personnel planted the trees near Administration Department, at the boundary of Company, Security gate, Boiler – HAG Plant, Corn cob plant, ET Plant etc… A total of 1300 no's of trees were planted.

6. The treated effluent of the unit is sent to a Common Effluent Treatment facility known as Enviro Infrastructure Company Limited (EICL) situated at Umraya – Padra, District Vadodara through road tankers of an authorized transporter. The treated effluent conforms the stipulated discharge norms of Gujarat Pollution Control Board.

7. As a part of Company's **"CLIMATE CHANGE MITIGATION POLICY"** special awareness sessions were conducted on tree plantation for carbon sequestration, energy and water conservation at the unit as well as nearby villages.

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8. Some new improvement initiatives were taken in the year. The details of those initiatives is as mentioned below :

1. Installation of Piezo well with DWLR system for regular monitoring of ground water level :

2. Construction of scrubber pit at Boiler & HAG scrubber for the settlement of ash and due that reduction of water contaminant :

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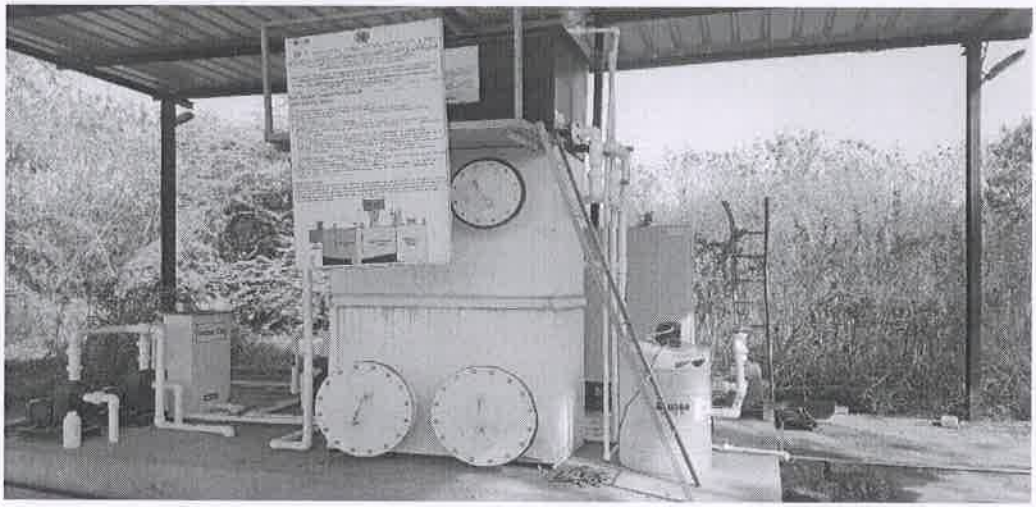
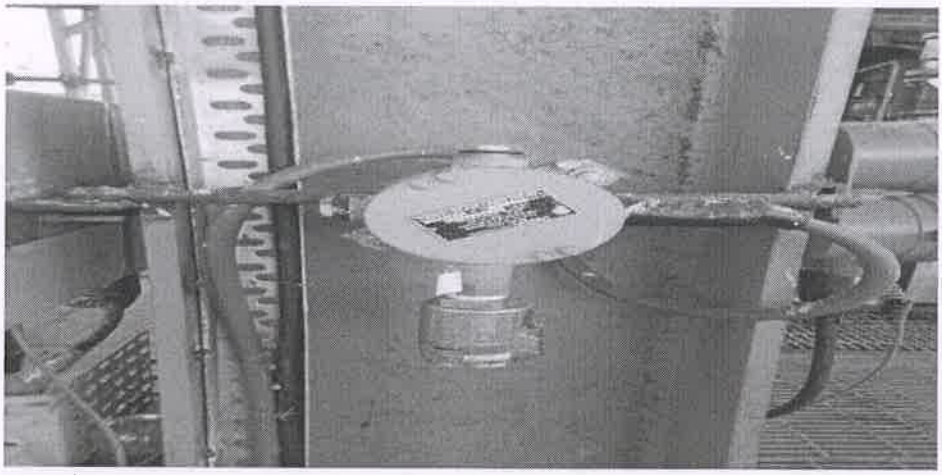
Samlaya

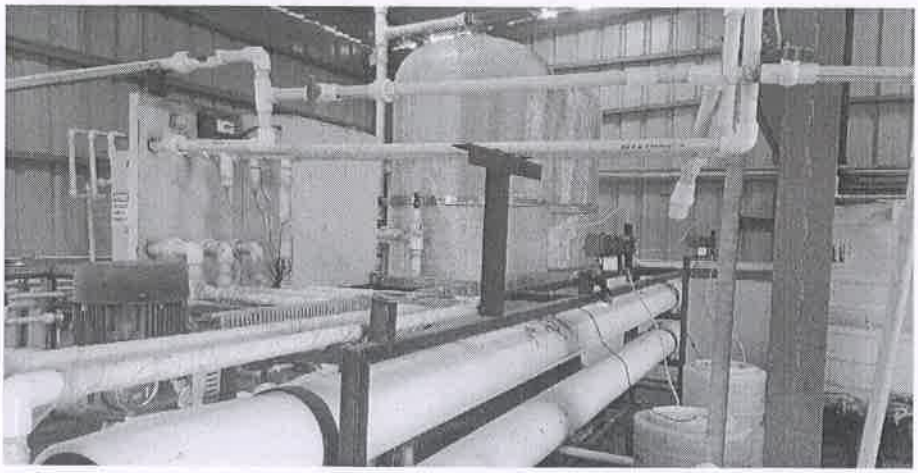
3. **Installation of 15 KLD sewage treatment plant:**



4. **Online gas detection system for storage area and process area : 10 nos of HC detectors, EO detectors are installed in Storage and plant area.**

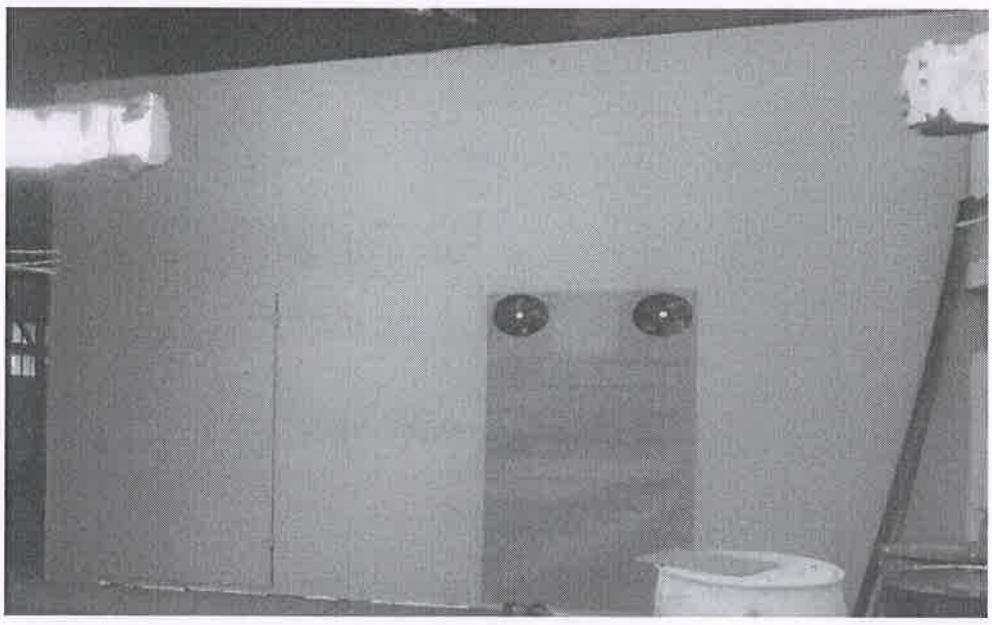


5. **RO upgradation in Utility plant to reduce 20 KLD RO rejects and 20 KL water consumption.**



10. **Two stage scrubber installation for process vent in liquid Plant.**

11. **Acoustic Enclosure installed to DG System.**



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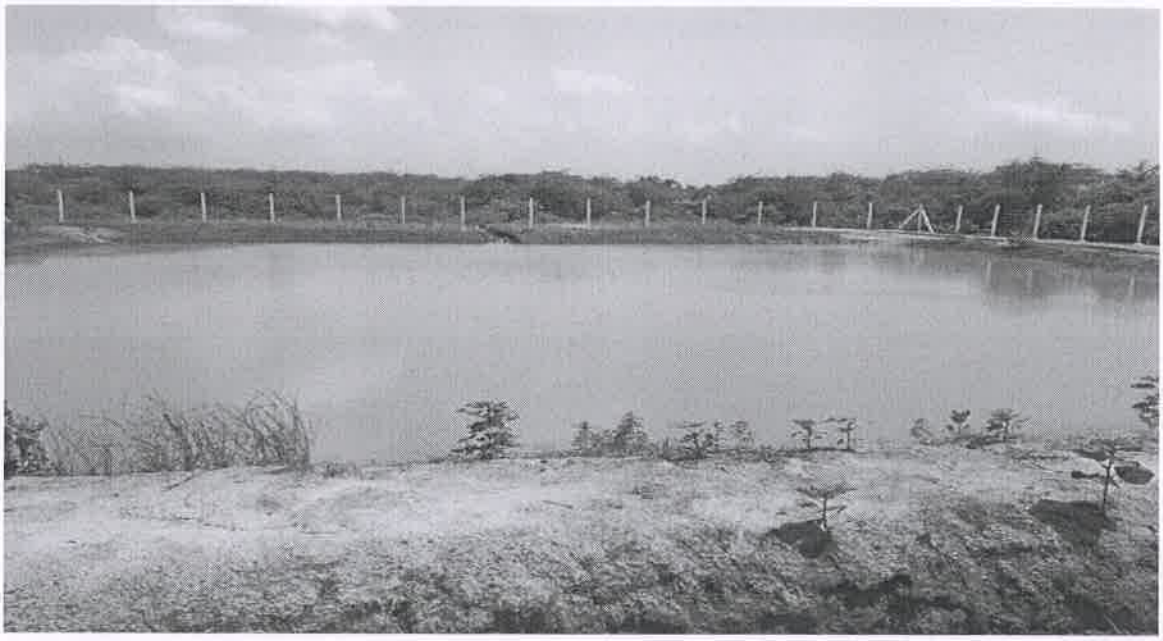
12. **Surface Runoff Rain Water Harvesting Lagoon (3000 KL Rain Water Reservoir) for Collection and reuse of Surface Rain Water Runoff.**



Following energy saving initiatives were also taken during the year. The details of the initiatives is as mentioned below:

- All the fans of the canteen have been provided with timers. This ensures the running of fans only during tea and dinning. This has resulted into the saving of 5 units of power/ day.
- Timers provided in all air condition for power saving.
- Installation of energy efficient motor in reactor and pump area.
- Upgradation of RO plant for reducing the effluent generation
- Installation of Magnetic Flowmeter to monitor the ground water consumption through Bore well.
- Fly ash Management System implementation.
- Bag Filter replacement in Corn cob Plant.
- Installation of Wet Scrubber in Dry Plant to increase the efficiency of Air Pollution Control Measures.

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PART – I

Other particulars for improving the quality of the environment.

1. The unit has Atomic Absorption Spectrophotometer (Cost Rs. 20.67 Lacs), which is a useful device for analyzing heavy metals such as Lead,\ Chromium, Cyanide and Arsenic etc. in waste water.
2. Online COD, BOD, pH & TSS meter at final discharge at ETP.
3. Unit has developed Ammonical nitrogen test for Wastewater in QC lab.
4. The unit has a well-designed Rain Water Harvesting system located near the bore well. The catchment area of RWHS is 8245 Sq. M which covers the terrace of 2 buildings. The RWHS helps in improving ground water table after every monsoon.

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

Date: 16.04.2022

Name : Gurish Khosla
Designation : Unit Head
Address : Jubilant Ingrevia Limited.
Block 133, Savli- Jarod Road
Village – Samlaya Taluka – Savli
Dist. – VADODARA

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ANNEXURE - A

PROCESS WATER CONSUMPTION :- APR'21 - MAR'22

Sr.No.	Products		Production Quantity MT/YR 2020-21	Production Quantity MT/YR 2021-22	Process water consumption in product M3/MT	
					During the current financial year(2) 2020-21 M3	During the current financial year(2) 2021-22 M3
1	Ethoxylate of Nonyl phenol, Fatty Acid Fatty Alcohol, DEG& Castor oil, Choline chloride& derivatives (Aqueous Choline Chloride), Acidifier Liquid, Chloromequate Chloride (Choline Dichloride), Ethoxylate PCL3 (Triss), Choline Chloride Crystals etc.	Ethoxylateof Nonyl Phenol	0	0	0	0
		Fatty Acid Fatty Alcohol	0	0	0	0
		DEG & Castor Oil	0	0	0	0
		Choline Choliride & Derivatives (Aq.	9721.13	11569	0.4	0.4
		Acidifier Liquid	0	0	0	0
		Chloromequate Chloride (Choline Dichloride)	0	0	0	0
		Ethoxylated PCl 3 (Triss)	0	0		0
		Choline Choliride crystal etc..	0	0	0	0
	Total	**Total**	9721.13	11569	0	0
2	Betain	Betain	0	0	0	0
3	Choline chloride Dry, (Dry Choline chloride), Acidifier Dry, Silica based dry choline etc.	Dry Choline Chloride	11155.4	12125	0	0
		Acidifier Dry	0	0	0	0
		Silica Based Dry Choline etc.	0	0	0	0
	Total	**Total**	11155.4	12125	0	0
4	Premix , Emulsifier Ethoxylates of Castor oil, Emulsifier lysolecithin ,Chelated minerals Liquid Formulations and tonics, Encapsulated products	Premix	1128.8	1936.67	0	0
		Emulsifier Ethoxylates of Castor Oil,	0	0	0	0
		Emulsifier Lysolecithin	0	0	0	0
		Chelated Minerals	0	0	0	0
		Liquid Formulation and Tonic	0	0	0	0
		Encapsulated Products	0	0	0	0
	Total	**Total**	1128.8	1936.67	0	0
5	Carrier	Carrier	3055	3205	0	0
6	EOCO2 (Ethylene Oxide and Carbon Dioxide mixture)	EOCO2 (Ethylene Oxide and Carbon Dioxide mixture)	200.4	267.61	0	0

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ANNEXURE - B

PRODUCTION DATA AND RAW MATERIAL CONSUMPTION

FROM :- APR'21 - MAR'22

Sr. No.	Name of Finished Products	Production Quantity MT/YR Year 2020-21	Production Quantity MT/YR Year 2021-22	Name of The Raw Materials	Consumption of Raw Material	
					During the current financial year (MT) 2020-21	During the current financial year (MT) 2021-22
1	Liquid Choline Chloride (Feed grade)	9721.13	11569	A) Ethylene Oxide	2382	3008
				B) Tri methyl amine	3159	3818
				C) HCl	5930	7774
2	Dry Choline Chloride	11155.4	12125	A) Liquid Choline Chloride	9047	9858
				B) Cob carrier	3124	4802
3	Corncob carrier	3055	3205	A) Corncob	5071	2083
4	Animal Feed Premix	1128.8	1936.67	A) Trace mineral (feed)	734	1259
				B) Feed nutrients	734	1259
5	Ethylene Oxide and Carbon Dioxide mixture	200.4	267.61	A) Ethylene Oxide	42	54
				B) Carbon Dioxide	172	213
6	Chlormequat Chloride (Choline Dichloride)			A) Ethylene Dichloride	0	0
				B) Tri methyl amine	0	0
				C) Water (DM)	0	0
7	Oil Field Chemicals			A) DM Water	–	–
				B) Max. Quat - 50	–	–
				C) RS - 0579	–	–
				D) RS - 9129	–	–
8	Ethoxylated PCl3 (Triss)			–	–	–
9	Ethoxylates of Nonyl phenol,Fatty Acid,Fatty Alcohol,DEG and Castor Oil			A) Nonyl phenole	–	–
				B) Ethylene Oxide	–	–
10	Acidifier Liquid			A) Formic Acid	0	0
				B) Propionic Acid	0	0
				C) Ammonia Solution	0	0
11	Acidifier Powder Dry Base			A) Acidifier Liquid	0	0
				B) Corn Cob Powder	0	0
				C) Rice Husk Powder	0	0

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ANNEXURE - C

LIST OF CONSENTED QUANTITIES OF FINISHED PRODUCTS

Sr. No.	Name of Product	Quantity (TPM)
1	Ethoxylate of Nonyl phenol, Fatty Acid Fatty Alcohol, DEG& Castor oil, Choline chloride& derivatives (Aqueous Choline Chloride), Acidifier Liquid, Chloromequate Chloride (Choline Dichloride), Ethoxylate PCL3 (Triss), Choline Chloride Crystals etc.	**3400**
2	Betain	**500**
3	2 - Vinyle Pyridine	**500**
4	Choline chloride Dry, (Dry Choline chloride), Acidifier Dry, Silica based dry choline etc.	**3000**
5	Premix, Emulsifier Ethoxylates of Castor oil, Emulsifier lysolecithin ,Chelated minerals, Liquid Formulations and tonics, Encapsulated products	**3550**
6	Carrier	**850**
7	EOCO2 (Ethylene Oxide and Carbon Dioxide mixture)	**300**
8	Oil Field Chemicals	**120**
	Total	**12220**

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