



## FORM V

### Environmental Audit Report for the financial Year ending the 31st March 2018

#### Company Information

**Company Name**

Excel Industries Limited

**Application UAN number**

MPCB-CONSENT-0000038842

**Address**D - 9, MIDC AREA, LOTE PARSHURAM, TAL.-  
KHED, DIST.-RATNAGIRI**Plot no**

D-9, MIDC AREA, LOTE PARSHURAM

**Taluka**

KHED

**Village**

LOTE

**Capital Investment (In lakhs)**

86.07

**Scale**

L.S.I

**City**

KHED

**Pincode**

415 722

**Person Name**

MR. EKANATH P KAREKAR

**Designation**

GENERAL MANAGER

**Telephone Number**

02356-272375

**Fax Number**

02356-272336

**Email**

ekanath.karekar@excelind.com

**Region**

SRO-Chiplun

**Industry Category**

Red

**Industry Type**

R22 Organic Chemicals manufacturing

**Last Environmental statement submitted online**

yes

**Consent Number**format 1.0/BO/CAC-CEII/EIC  
NO.KP-17814-15/14th CAC/2647**Consent Issue Date**

23-02-2016

**Consent Valid Upto**

31.01.2018

#### Product Information

**Product Name**

Sodium Penta Chloro Phenate &amp; it's Formulations

**Consent  
Quantity**

1800

**Actual  
Quantity**

1340.76

**UOM**

MT/A

Hydroxy Ethylidene Di-Phosphonic Acid &amp; it's Formulations (codex - 661 &amp; it's Formulations).

7200

6970

MT/A

Acetyl Chloride.

3600

3460

MT/A

Sodium Salt of 5 Sulphono Isophthalic dimethyl ester. (SIPM).

360

0

MT/A

Amino Tri-methylene Phosphonic Acid &amp; it's Formulations.(ATMP)

1200

1165.7

MT/A

Codex - 551

600

76.615

MT/A

Dispersal - 32 (Poly Maleic Acid)

252

0

MT/A

THPE [(1,1,1,Tris (4- Hydroxy Phenyl) Ethane)] AND/ OR DMBPC (Di-Methyl Bis Phenol Cyclohexane (DMBPC) and Its derivatives.

1025

243.75

MT/A

R &amp; D and Pilot Plant for Industrial Chemicals, Intermediates &amp; Pharmaceuticals.

0

0

MT/A

Lauracel.

30

0

MT/A

(R) - 9- [2 (phosphonomethoxy) propyl] Adenine (PMPA)

75

0

MT/A

4- Hydroxythiobenzamide Febuxostat T1

12

0

MT/A

Ethyl 2-(4-hydroxyphenyl)-4-methylthiazole-5-carboxylate Febuxostat T2

18

0

MT/A

Ethyl 2-(3-formyl-4-hydroxyphenyl)-4-methylthiazole-5- Carboxylate Febuxostat T3

15

0.191

MT/A

Ethyl 2-(3-formyl-4-isobutoxyphenyl)-4-methylthiazole-5- Carboxylate Febuxostat T4

14

0.001

MT/A

Ethyl 2-(3-cyano-4-isobutoxyphenyl)-4-methylthiazole-5- Carboxylate Febuxostat T5 and /OR 2-(3-Cyano-4-Isobutoxyphenyl) -4-methyl -1,3 thiazole -5-carboxylic acid. Febuxostat

42

31.604

MT/A

5-(Bromomethyl)-4-(4-fluorophenyl)-6-(1-methylethyl)-2- Methyl (methylsulfonyl) amino pyrimidine Z 7 Br	48	0	MT/A
Phosphonium, [[4-(4-fluorophenyl)-6-(1-methylethyl)-2-[methyl methylsulfonyl) amino] -5 pyrimidinyl] methyl] triphenyl - bromide (1:1) Z 8.2	60	0	MT/A
N-[4-(4-Fluorophenyl)-5-formyl-6-(1-methylethyl)-2-pyrimidinyl]-N-methyl methane sulfonamide. Z7 Formyl	25	0	MT/A
6-Hydroxy-3,4-dihydro- 1H-quinoline-2-one. 6 HQ	20	0	MT/A
4-[4-[4-(hydroxydiphenylmethyl)-1-piperidinyl ]-1-hydroxybutyl ] -a,a-Dimethyl-4-[1-hydroxy-4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-benzeneacetic acid hydrochloride (Fexofenadine Hy	26	0	MT/A
n-Octyl Phosphonic Acid NOPA	75	0	MT/A
Pregabalin ((S)-3-(aminomethyl)-5-methylhexanoic acid) and Its intermediate	20	0	MT/A
Sitagliptin phosphate, (3 - (Trifluoromethyl) -5,6,7,8 - tetra hydro-[1,2,4] triazolo [4,3-allypyrazine hydrochloride) (Intermediate)	20	0	MT/A
4-[5-(4-Methylphenyl)-3-(trifluoromethyl) pyrazol-1-yl] benzenesulfonamide and Celecoxib intermediate (4- Hydrazinobenzene -1-sulfonamide Hydrochloride)	10	0	MT/A
Benfotamine phosphate	20	0	MT/A
Celestistat	6	0	MT/A
Silodosin	2	0	MT/A

### **By-product Information**

<b>By Product Name</b>	<b>Consent Quantity</b>	<b>Actual Quantity</b>	<b>UOM</b>
Spent Acid	1645	0	MT/A
Dil.Methanol	450	0	MT/A
Hydrochloric Acid	15000	14505.5	MT/A
Dilute Acetic Acid	1200	0	MT/A
Methanol	600	0	MT/A
Sodium Sulphite 30%	936	0	MT/A
Spent Ethyl Bromide	187.5	0	MT/A
Spent Magnesium Acetate	75	0	MT/A
Spent sodium Bromide Solution	1424.5	0	MT/A
Dilute Thiphosphoric Acid	11.75	0	MT/A
Dilute Methane Sulphonic Acid	195	0	MT/A
Dilute Dimethyl form amide	56	0	MT/A
Dilute Bromide Solution	140	0	MT/A
Formic Acid	96	0	MT/A

### **1) Water Consumption in m3/day**

<b>Water Consumption for Process</b>	<b>Consent Quantity in m3/day</b>	<b>Actual Quantity in m3/day</b>
<b>Cooling</b>	218	159
<b>Domestic</b>	66	54
<b>All others</b>	50	50
<b>Total</b>	457	351

### **1) Effluent Generation in CMD / MLD**

<b>Particulars</b>	<b>Consent Quantity</b>	<b>Actual Quantity</b>	<b>UOM</b>
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Trade Effluent	85	53	CMD
Domestic Effluent	63	39	CMD

## **2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)**

<b>Name of Products (Production)</b>	<b>During the Previous financial Year</b>	<b>During the current Financial year</b>	<b>UOM</b>
Sodium Penta Chloro Phenate & its Formulations	1.96	1.98	Ton/Ton
Hydroxy Ethylidene Diphosphonic acid and its formulations(Codex 661 & Its Formulations)	1.63	1.72	Ton/Ton
Acetyl chloride	0.1	0.12	Ton/Ton
Amino Tri Methylene Phosphonic Acid & its formulations	1.70	1.68	Ton/Ton
THPE (1,1,1,Tris (4-Hydroxy Phenyl Ethane) And /Or DMBPC(Di methyl Bis Phenol Cyclohexane and its derivatives.	15.20	15.36	Ton/Ton
Ethyl -2-(3-cyano-4-isobutoxyphenyl)-4-methylthiazole-5-carboxylate (Febuxostat T5) & /OR 2-(3-cyano-4-isobutoxyphenyl)-4-methyl -1,3 -thiazole-5-carboxylic acid (Febuxostat )	37	35	Ton/Ton
Ethyl 2-(3-formyl-4-hydroxyphenyl)-4-methylthiazole-5-Carboxylate Febuxostat T3	0	33	Ton/Ton
Ethyl 2-(3-formyl-4-isobutoxyphenyl)-4-methylthiazole-5 carboxylate Febuxostat T4	0	32	Ton/Ton
Codex 551	0	0.41	Ton/Ton

## **3) Raw Material Consumption (Consumption of raw material per unit of product)**

<b>Name of Raw Materials</b>	<b>During the Previous financial Year</b>	<b>During the current Financial year</b>	<b>UOM</b>
Chlorine ( biocel)	1.336	1.113	Ton/Ton
3-Mercapto Propionic Acid (THPE)	0.058	0.062	Ton/Ton
4-Hydroxy Acetophenone	0.054	0.636	Ton/Ton
Sodium Bicarbonate (THPE)	0.232	0.248	Ton/Ton
Sodium borohydrate	0.03	0.027	Ton/Ton
Methanol (THPE)	0.165	0.30	Ton/Ton
Acetic Acid (HEDP)	0.188	0.190	Ton/Ton
Phosphorous Trichloride (HEDP)	0.835	0.834	Ton/Ton
Acetic Acid (For Acetyl Chloride)	0.795	0.788	Ton/Ton
Phenol (Biocel)	0.273	0.298	Ton/Ton
Caustic Lye	0.113	0.124	Ton/Ton
Caustic Lye (ATMP Formulation 5323 R)	0.106	0.106	Ton/Ton
Phosphorous Trichloride (ATMP Formulation 4503)	0.667	0.662	Ton/Ton
Formaldehyde (ATMP 8503)	0.469	0.506	Ton/Ton
Ammonium Chloride (ATMP 8503)	0.077	0.081	Ton/Ton
Phosphorous Trichloride (ATMP 8503)	0.611	0.712	Ton/Ton
Diethylene triamine (ATMP Formulations 5323R)	0.047	0.046	Ton/Ton
Formaldehyde(ATMP formulation 5323R)	0.0213	0.212	Ton/Ton
Diethylene triamine(ATMP formulation 4503)	0.090	0.089	Ton/Ton
Formaldehyde(ATMP formulation 4503)	0.415	0.407	Ton/Ton
Phosphorous Trichloride (ATMP Formulation 5323R)	0.352	0.352	Ton/Ton

Hydroxylamine Hydrochloride	0.334	0.338	Ton/Ton
Ethyl Acetate	1.635	1.381	Ton/Ton
Phenol (THPE)	0.872	0.948	Ton/Ton
Febuxostat T4	0.984	0	Ton/Ton
Hydroxyl amine hydrochloride(T5)	0.334	0.338	Ton/Ton
Sodium formate	0.386	0	Ton/Ton
Formic acid	6.250	0	Ton/Ton
Ethyl Acetate	3.94	0	Ton/Ton
FEB T-5	1.30	1.302	Ton/Ton
Sodium Hydroxide	0.195	0.195	Ton/Ton
Methanol	6.878	6.231	Ton/Ton
Hydrochloric Acid	0.612	0.615	Ton/Ton
FEB T3	1.19	1.206	Ton/Ton
Dimethyl Formaide (T5)	3.41	3.401	Ton/Ton
Potassium Carbonate (T5)	0.715	0.723	Ton/Ton
Isobutyl Bromide (T5)	1.13	1.143	Ton/Ton
Hydroxylamine Hydrochloride (T5)	0.334	0.338	Ton/Ton
Acetyl Chloride (T5)	0.694	0.772	Ton/Ton
Hydrochloric Acid(T6)	0.518	--	Ton/Ton

#### 4) Fuel Consumption

<b>Fuel Name</b>	<b>Consent quantity</b>	<b>Actual Quantity</b>	<b>UOM</b>
Coal	16936	5780	MT/A
Furnace Oil	3452.9	0	MT/A
HSD	27.375	31.60	MT/A

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

##### [A] Water

<b>Pollutants Detail</b>	<b>Quantity of Pollutants discharged (kL/day)</b>	<b>Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour</b>	<b>Percentage of variation from prescribed standards with reasons</b>	<b>Standard</b>	<b>Reason</b>
	<b>Quantity</b>	<b>Concentration</b>	<b>%variation</b>		
pH	--	7..4	--	6.5-9.0	--
Suspended Solids	4.416	48	-52	NOT TO EXCEED 100	Primary Secondary and Tertiary Treatment System is provided.
BOD	5.52	60	-40	NOT TO EXCEED 100	Primary Secondary and Tertiary Treatment System is provided.
COD	15.64	170	-32	NOT TO EXCEED 250	Primary Secondary and Tertiary Treatment System is provided.
Oil and Grease	0.096	1.05	-89.5	NOT TO EXCEED 10	Primary Secondary and Tertiary Treatment System is provided.

Phenolic Compounds	0.0074	0.08	-	NOT TO EXCEED 1	Primary Secondary and Tertiary Treatment System is provided.
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**[B] Air (Stack)**

<b>Pollutants Detail</b>	<b>Quantity of Pollutants discharged (kL/day)</b>	<b>Concentration of Pollutants discharged(Mg/NM3)</b>	<b>Percentage of variation from prescribed standards with reasons</b>	<b>Standard</b>	<b>Reason</b>
	<b>Quantity</b>	<b>Concentration</b>	<b>%variation</b>		
Boiler Stack S-1B SO2	33	56	-90	570 Kg/D	IMPORTED COAL
Boiler Stack S-1BTPM	12.69	98	-35	150 mg/Nm3	CYCLON SEPARATOR AND BAG FILTERS PROVIDED.
D.G. Set Stack S-3 SO2	1.1	72.75	-82	6 Kg/D	USE OF LOW SULPHUR HSD
D.G. Set Stack S-3 TPM	1.07	71	-59	150 mg/Nm3	--
Process Stack S-4 HCl	--	13	-63	35 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-5 HCl	--	11	-68.5	35 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-6 HCl	--	16	-54	35 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-7 HCl	--	17	-51.42	35 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-8 HCl	--	21	-40	35 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-9 TPM	--	37	-75.33	150 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-10 TPM	--	23	-84.66	150 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-11 HCl	--	6	-83	35 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-12 HCl	--	6	-83	35 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-13 HCl	--	9	-74	35 mg/Nm3	Wet Scrubbers are provided.
Process Stack S-6 HCl	--	8	-77.14	35 mg/Nm3	Wet Scrubbers are provided.
Spray Dryer SO2	1.7	9.5	-98.54	117 kg/d	Wet Scrubbers are provided.
Spray Dryer SO2	15	82.5	-45	150 mg/Nm3	Wet Scrubbers are provided.

**HAZARDOUS WASTES**

**1) From Process**

<b>Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
31.1 Residues and wastes*	7.09	2.97	MT/A
20.3 Distillation residue	179.78	143.95	MT/A
5.1 Used /spent oil	2.285	0.66	KL/A
5.2 Wastes/residue containing oil	0.07	0	MT/A
33.3 Discarded containers / barrels / liner	7463	8853	Nos./Y

## **2) From Pollution Control Facilities**

<b>Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
34.3 Chemical sludge from waste water treatment	241.58	388.70	MT/A

## **SOLID WASTES**

### **1) From Process**

<b>Non Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
Sugar/Wheat/Rice Jute Bags	90	105	Nos./Y
Oil Tin	230	194	Nos./Y
Wooden Pallets	244	183	Nos./Y
M.S. Scrap	48	59.82	MT/A
Food Waste	7.80	7.86	MT/A
Paper Waste	1.65	3.49	MT/A
Boiler Ash	594.51	455.58	MT/A

### **2) From Pollution Control Facilities**

<b>Non Hazardous Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
--	--	--	Kg
--	--	--	Kg

### **3) Quantity Recycled or Re-utilized within the unit**

<b>Waste Type</b>	<b>Total During Previous Financial year</b>	<b>Total During Current Financial year</b>	<b>UOM</b>
0	NA	NA	Kg
0	NA	NA	Kg

**Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.**

### **1) Hazardous Waste**

<b>Type of Hazardous Waste Generated</b>	<b>Qty of Hazardous Waste</b>	<b>UOM</b>	<b>Concentration of Hazardous Waste</b>
31.1 Residues and wastes*	2..97	MT/A	Containing traces of phenolic compounds, Aluminium powder etc.
34.3 Chemical sludge from waste water treatment	388.7	MT/A	CaO, Phenolic compounds, Calcium Phosphate etc.
20.3 Distillation residue	143.95	MT/A	Phenol and phenolic compounds.
5.1 Used /spent oil	0.66	KL/A	Oil
33.3 Discarded containers / barrels / liner	8853	Nos./Y	Sell to MPCB authorized party after decontamination.

### **2) Solid Waste**

<b>Type of Solid Waste Generated</b>	<b>Qty of Solid Waste</b>	<b>UOM</b>	<b>Concentration of Solid Waste</b>
Boiler Ash	455.58	MT/A	Inorganic material. Ash generated from Coal.

**Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.**

<b>Description</b>	<b>Reduction in Water Consumption (M3/day)</b>	<b>Reduction in Fuel &amp; Solvent Consumption (KL/day)</b>	<b>Reduction in Raw Material (Kg)</b>	<b>Reduction in Power Consumption (KWH)</b>	<b>Capital Investment(in Lacs)</b>	<b>Reduction in Maintenance(in Lacs)</b>
COMMISSIONING OF VFD TO FD FAN OF BOILER	--	-	--	35000 KWH	3.0	--
REPLACEMENT OF EXISTING IMPELLAR TYPE AGITATOR BY PITCH BLADE TYPE AGITATOR IN CODEX PLANT	--	-	--	--	2.50	12.50

**Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.**  
**[A] Investment made during the period of Environmental Statement**

**Detail of measures for Environmental Protection**

	<b>Environmental Protection Measures</b>	<b>Capital Investment (Lacks)</b>
AUTO START UP OF BLOWER AT MAIN ENTRY GATE OF PHARMA R. M WAREHOUSE	--	0.30

**[B] Investment Proposed for next Year**

**Detail of measures for Environmental Protection**

<b>Detail of measures for Environmental Protection</b>	<b>Environmental Protection Measures</b>	<b>Capital Investment (Lacks)</b>
DIFFUSED AERATION FOR BIOREACTOR	INCREASE IN COD REDUCTION CAPACITY FOR IMPROVEMENT IN ENVIRONMENTAL PERFORMANCE.	66.0
ADDITIONAL RO PLANT FOLLOWED BY MEE AND ATFD FOR ZERO LIQUID DISCHARGE	TO RECYCLE THE TREATED EFFLUENT	600.0

**Any other particulars in respect of environmental protection and abatement of pollution.**

**Particulars**

We are an Responsible Care company with an ISO 9001:2008, ISO 14001, and IS 18001 Certified company. We have installed a full fledged Primary, Secondary and Tertiary treatment system with Continuous Online Effluent Monitoring system at the outlet. Tree plantation is done in and around the company.

**Name & Designation**

MR. Ekanath P. Karekar. General Manager- Lote Works.