BRIEF SUMMARY OF PROJECT

FOR

PROPOSED SYNTHETIC ORGANIC CHEMICALS MANUFACTURING UNIT

of

M/s. COSMIC PIGMENTS & INTERMIDIATES (UNIT-II)
SURVEY NO. 238, LUNEJ, KHAMBHAT, ANAND, GUJARAT.

Prepared by

NABL Accredited Testing Laboratory
ISO 9001:2008 Certified Company
Aqua-Air Environmental Engineers P. Ltd.
(Pollution Control Consultants & Engineers)
403, Centre Point, Nr. Kadiwala School,
Ring Road, Surat – 395002

BRIEF SUMMARY OF THE PROJECT

1.1 Project Details

M/s. Cosmic Pigments & Intermediates (Unit-II) proposes Synthetic Organic Chemicals Manufacturing Unit at Survey No. 238, Lunej, Khambhat, Dist: Anand, Gujarat-388620.

1.1.1 List of Products along with Production Capacity

Sr.No. of Total Products	Category wise Sr.No. of Products	Group wise Sr.No. of Products	Name of the Products	CAS no. / CI no.	Quantity MT/Month	LD50 /LC50
1.Total No. of Products : Category : A+B+C+D+E+F+G+H+I+J+K+L = 274; Total Production capacity of All Products : 2900 MT/Month						
	Category-A: Pigments (Group 1+2+3+4+5 = 106)					
		Group-1: Pigment Red = 49				
1	1	1	Pigment Red 2	6041-94-7		LD50 Oral, Rat 8110 mg/kg
2	2	2	Pigment Red 3	2425-85-6		LD50 Oral, Rat 8180 mg/kg
3	3	3	Pigment Red 4	2814-77-9		LD50 Oral, Rat 8140 mg/kg
4	4	4	Pigment Red 5	6410-41-9		LD50 Oral, Rat 8190 mg/kg
5	5	5	Pigment Red 12	6410-32-8		LD50 Oral, Rat 8160 mg/kg
6	6	6	Pigment Red 14	6471-50-7		NA
7	7	7	Pigment Red 38	6358-87-8		dermal route (LD50 > 2000 mg/kg bw)
8	8	8	Pigment Red 48:1	7585-41-3		LD50 Oral, Rat 8160 mg/kg
9	9	9	Pigment Red 48:2	7023-61-2		LD50 Oral, Rat 8190 mg/kg
10	10	10	Pigment Red 48:3	15782-05-5		LD50 Oral, Rat 8130 mg/kg
11	11	11	Pigment Red 48:4	5280-66-0		LD50 Oral, Rat 8160 mg/kg
12	12	12	Pigment Red 48:5	N.A.		NA
13	13	13	Pigment Red 49	1248-18-6		NA
14	14	14	Pigment Red 49:1	1103-38-4		NA
15	15	15	Pigment Red 49:2	1103-39-5		NA
16	16	16	Pigment Red 49:3	6371-67-1	200	NA
17	17	17	Pigment Red 52:1	17852-99-2		NA
18	18	18	Pigment Red 52:2	12238-31-2		NA
19	19	19	Pigment Red 53	2092-56-0		NA
20	20	20	Pigment Red 53:1	5160-02-1.		LD50 Oral, Rat 8190 mg/kg
21	21	21	Pigment Red 53:3	73263-40-8		L.D.50 ACUTE ORAL(RATS) : ABOUT 5,000mg/KG
22	22	22	Pigment Red 57:1	5281-04-9.		LD50 Oral, Rat 8140 mg/kg
23	23	23	Pigment Red 63:1	6417-83-0		NA
24	24	24	Pigment Red 63:2	35355-77-2		LD50 rat (oral): > 2.000 mg/kg
25	25	25	Pigment Red 81	12224-98-5		LD50 rat : 8260 mg/kg
26	26	26	Pigment Red 81:1	80083-40-5		LD50 rat (oral): > 2.000 mg/kg
27	27	27	Pigment Red 81:x	63022-06-0		LD50 rat (oral): > 2.000 mg/kg
28	28	28	Pigment Red 81:y	N.A.		LD50 rat (oral): > 2.000 mg/kg
29	29	29	Pigment Red 81:2	75627-12-2		LD50 rat (oral): > 2.000 mg/kg
30	30	30	Pigment Red 81:3	68310-07-6		LD50 rat (oral): > 2.000 mg/kg
31	31	31	Pigment Red 81:4	85959-61-1		LD50 rat (oral): > 2.000 mg/kg

32	32	32	Pigment Red 112	6535-46-2		LD50 Oral, Rat 8290 mg/kg
33	33	33	Pigment Red 122	980-26-7		LD50 Oral, Rat 8290 mg/kg
34	34	34	Pigment Red 123	24108-89-2		LD50 rat (oral): > 2.000 mg/kg
35	35	35	Pigment Red 144	5280-78-4		LD50 Oral, Rat 8380 mg/kg
36	36	36	Pigment Red 146	5280-68-2		LD50 Oral, Rat 8360 mg/kg
37	37	37	Pigment Red 168	4378-61-4		NA
38	38	38	Pigment Red 169	12237-63-7		LD50 Oral, Rat 5000 mg/kg
39	39	39	Pigment Red 170	2786-76-7		LD50 Oral, Rat 8270 mg/kg
40	40	40	Pigment Red 175	6985-92-8		LD50 Oral, Rat 8350 mg/kg
41	41	41	Pigment Red 176	12225-06-8		LD50 Oral, Rat 8380 mg/kg
42	42	42	Pigment Red 177	4051-63-2		LD50 Oral, Rat 8340 mg/kg
43	43	43	Pigment Red 178	3049-71-6		LD50 Species: rat Value: > 5,000 mg/kg
44	44	44	Pigment Red 179	5521-31-3		LD50 Oral, Rat 8290 mg/kg
45	45	45	Pigment Red 188	61847-48-1		LD50 rat (oral): > 2.000 mg/kg
46	46	46	Pigment Red 202	3089-17-6		LD50 Oral, Rat 8360 mg/kg
47	47	47	Pigment Red 254	122390-98-1		LD50 Oral, Rat 8380 mg/kg
48	48	48	Pigment Red 256	79102-65-1		Oral LD50: >10 g/kg (rats) practically non-toxic
49	49	49	Pigment Red 264	122390-98-1		LD50 Oral, Rat 8320 mg/kg
		Group-2: Pigment Yellow = 32				
50	50	1	Pigment Yellow 1	2512-29-0		LD50 Oral, Rat. >10000mg/kg
51	51	2	Pigment Yellow 3	6486-23-3		LD50 Oral, Rat 8252mg/kg
52	52	3	Pigment Yellow 12	6358-85-6		LD50 Oral, Rat .>5000mg/kg
53	53	4	Pigment Yellow 13	5102-83-0		LD50 Oral, Rat .>5000mg/kg
54	54	5	Pigment Yellow 14	5468-75-7		LD50 Oral, Rat .>5000mg/kg
55	55	6	Pigment Yellow 16	5979-28-2		Not Listed
56	56	7	Pigment Yellow 17	4531-49-1		LD50 Oral, Rat 8230 mg/kg
57	57	8	Pigment Yellow 61	12286-65-6		LD50 Oral, Rat 8160 mg/kg
58	58	9	Pigment Yellow 62	12286-66-7		LD50 rat (oral): > 5,000 mg/kg
59	59	10	Pigment Yellow 63	14569-54-1		Not Listed
60	60	11	Pigment Yellow 65	6528-34-3		LD50 Oral, Rat 8230 mg/kg
61	61	12	Pigment Yellow 73	13515-40-7		LD50 Oral, Rat 8190 mg/kg
62	62	13	Pigment Yellow 74	6358-31-2		LD50 Oral, Rat 8260 mg/kg
63	63	14	Pigment Yellow 83	5567-15-7		LD50 Oral, Rat 8390 mg/kg
64	64	15	Pigment Yellow 93	5580-57-4	200	LD50 Oral, Rat 14000 mg/kg
65	65	16	Pigment Yellow 97	12225-18-2		LD50 Oral, Rat 8250 mg/kg
66	66	17	Pigment Yellow 101	2387-03-3.		LD50 rat (oral): > 2.000 mg/kg
67	67	18	Pigment Yellow 120	29920-31-8		oral route (LD50 > 15 000 mg/kg bw)
68	68	19	Pigment Yellow 121	61968-85-2		NA
69	69	20	Pigment Yellow 138	30125-47-4		LD50 rat (oral): > 5.000 mg/kg
70	70	21	Pigment Yellow 139	36888-99-0		LD50 Oral, Rat 2000 mg/kg
71	71	22	Pigment Yellow 151`	31837-42-0		LD50 Oral, Rat 8330 mg/kg
72	72	23	Pigment Yellow 153	68859-51-8		NA
73	73	24	Pigment Yellow 154	68134-22-5		LD50 Oral, Rat 8250 mg/kg
74	74	25	Pigment Yellow 155	68516-73-4		NA
75	75	26	Pigment Yellow 174	78952-72-4		LD50 Oral, Rat =980mg/kg
76	76	27	Pigment Yellow 180	77804-81-0		LD50 Oral, Rat 5000mg/kg
77	77	28	Pigment Yellow 181	74441-05-7		oral route (LD50 > 5000 mg/kg bw)
78	78	29	Pigment Yellow 182	67906-31-4		NA

79	79	30	Pigment Yellow 183	23792-68-9		LD50 Species: rat (male/female) Value: > 5,000 mg/kg
80	80	31	Pigment Yellow 191	129423-54-7		Oral LD50 value of 5 mg/kg or greater in rats.
81	81	32	Pigment Yellow 191:1	154946-66-4		LD50 Oral, Rat 2000mg/kg
		Group-3: Pigment Orange = 8				
82	82	1	Pigment Orange 5	3468-63-1	200	LD50 Oral, Rat 8120 mg/kg
83	83	2	Pigment Orange 13	3520-72-7		LD50 Oral, Rat 8190 mg/kg
84	84	3	Pigment Orange 16	6505-28-8		LD50 Oral, Rat 8120 mg/kg
85	85	4	Pigment Orange 34	15793-73-4		LD50 Oral, Rat 8250 mg/kg
86	86	5	Pigment Orange 36	12236-62-3		LD50 Oral, Rat 8210 mg/kg
87	87	6	Pigment Orange 43	4424-06-0		LD50 Oral, Rat 2000 mg/kg
88	88	7	Pigment Orange 62	52846-56-7		LD50 Oral, Rat 8370 mg/kg
89	89	8	Pigment Orange 64	72102-84-2		LD50 Oral, Rat 8270 mg/kg
		Group-4: Pigment Blue = 10				
90	90	1	Pigment Blue 1	1325-87-7	200	NA
91	91	2	Pigment Blue 15	147-14-8		LD50 Oral, Rat. >3200mg/kg
92	92	3	Pigment Blue 15:1	147-14-8		LD50 Oral, Rat. >3200mg/kg
93	93	4	Pigment Blue 15:2	147-14-8		LD50 Oral, Rat. >3200mg/kg
94	94	5	Pigment Blue 15:3	147-14-8		LD50 Oral, Rat 2000mg/kg
95	95	6	Pigment Blue 15:4	147-14-8		LD50 Oral, Rat 2000mg/kg
96	96	7	Pigment Blue 15:6	147-14-8		LD50 Oral, Rat 2000mg/kg
97	97	8	Pigment Blue 16	574-93-6		LD50 Oral, Rat 2000mg/kg
98	98	9	Pigment Blue 60	81-77-6		LD50 Oral, Rat > 980 mg/kg
99	99	10	Pigment Blue 62	57485-98-0		LD50 Oral, Rat 2000mg/kg
		Group-5: Pigment Violet = 7				
100	100	1	Pigment Violet 1	1326-03-0	200	LD50 Oral, Rat 2000mg/kg
101	101	2	Pigment Violet 1x	N.A.		LD50 Oral, Rat 2000mg/kg
102	102	3	Pigment Violet 3	1325-82-2		LD50 Oral, Rat 2000mg/kg
103	103	4	Pigment Violet 19	1047-16-1		LD50 Oral, Rat 8420 mg/kg
104	104	5	Pigment Violet 23	6358-30-1		LD50 Oral, Rat 2000mg/kg
105	105	6	Pigment Violet 27	12237-62-6		LD50 Oral, Rat. >3200mg/kg
106	106	7	Pigment Violet 29	81-33-4		LD50 Oral, Rat 2000mg/kg
	Total of Category-A (Group 1 + 2 + 3 + 4 + 5) = 106				**1000**	
	Category-B: Solvent Dyes					
		Group-1: Red Solvent Dyes = 13				
107	1	1	Solvent Red 19E	6368-72-5	100	NA
108	2	2	Solvent Red 23	85-86-9		NA
109	3	3	Solvent Red 24	85-83-6		Acute oral toxicity: LD50(Rat): 8110mg/kg
110	4	4	Solvent Red 52	81-39-0		Acute oral toxicity: LD50(Rat): 8160mg/kg
111	5	5	Solvent Red 111	82-38-2		Acute Toxicity: Oral-dog LD 50:>8 g/kg
112	6	6	Solvent Red 135	20749-68-2		Acute oral toxicity: LD50(Rat): 8260mg/kg
113	7	7	Solvent Red 151	144013-41-1		NA
114	8	8	Solvent Red 168	71832-19-4		Acute oral toxicity: LD50(Rat): 8220mg/kg
115	9	9	Solvent Red 169	27354-18-3		Acute oral toxicity: LD50(Rat): 8230mg/kg

116	10	10	Solvent Red 179	479-27-6		Acute oral toxicity: LD50(Rat): 8260mg/kg
117	11	11	Solvent Red 197	52372-39-1		Acute oral toxicity: LD50(Rat): 8190mg/kg
118	12	12	Solvent Red 207	15958--69-6		NA
119	13	13	Solvent Red 227	2944-28-7		NA
		Group-2: Yellow Solvent Dyes = 12				
120	14	1	Solvent Yellow 2	6370-43-0		NA
121	15	2	Solvent Yellow 14	842-07-9		NA
122	16	3	Solvent Yellow 18	6407-78-9		NA
123	17	4	Solvent Yellow 33	8003-22-3		Skin, rabbit: LD50 = >2 gm/kg.
124	18	5	Solvent Yellow 43	19125-99-6		NA
125	19	6	Solvent Yellow 44	2478-20-8		NA
126	20	7	Solvent Yellow 72	61813-98-7		NA
127	21	8	Solvent Yellow 114	7576-65-0		NA
128	22	9	Solvent Yellow 131	71819-82-4		NA
129	23	10	Solvent Yellow 157	27908-75-4		Acute oral toxicity: LD50(Rat): 8200mg/kg
130	24	11	Solvent Yellow 163	106768-99-4		LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 423)
131	25	12	Solvent Yellow 167	N.A.		NA
		Group-3: Orange Solvent Dyes = 3				
132	26	1	Solvent Orange 60	61969-47-9		Acute oral toxicity: LD50(Rat): 8090mg/kg
133	27	2	Solvent Orange 63	16294-75-0		Acute oral toxicity: LD50(Rat): 8190mg/kg
134	28	3	Solvent Orange 105	31482-56-1		LD50 Intraperitoneal Rat=3060 MG/KG
		Group-4: Blue Solvent Dyes = 6				
135	29	1	Solvent Blue 35	17354-14-2		NA
136	30	2	Solvent Blue 36	14233-37-5		Acute oral toxicity: LD50(Rat): 8080mg/kg
137	31	3	Solvent Blue 97	61969-44-6		Acute oral toxicity: LD50(Rat): 8200mg/kg
138	32	4	Solvent Blue 101	6737-68-8		NA
139	33	5	Solvent Blue 102	15403-56-2		NA
140	34	6	Solvent Blue 104	116-75-6		Not acutely toxic via the oral route (LD50 > 5000 mg/kg bw)
		Group-5: Violet Solvent Dyes = 4				
141	35	1	Solvent Violet 13	81-88-1		LD50 Oral, Rat. >500mg/kg
142	36	2	Solvent Violet 14	67577-84-8		Acute oral toxicity: LD50(Rat): 8110mg/kg
143	37	3	Solvent Violet 38	63512-14-1		NA
144	38	4	Solvent Violet 59	6408-72-6		Acute oral toxicity: LD50(Rat): 8220mg/kg
		Group-6: Green Solvent Dyes = 3				
145	39	1	Solvent Green 3	128-80-3		LD50 = 3660 mg/kg (Rat)
146	40	2	Solvent Green 28	71839-01-5		LD50 = 3660 mg/kg (Rat)
147	41	3	Solvent Green 33	10671-57-8		NA
	Total of Category-B (Group 1 + 2 + 3 + 4 + 5 + 6) = 41				**100**	
	Category-C: Solvent Dyes					
		Group-1: Red Acid Dyes = 3			100	

148	1	1	Acid Red 34	6360-67-1		NA
149	2	2	Acid Red 88	1658-31-7		NA
150	3	3	Acid Red 183	6408-31-7		NA
		Group-2: Yellow Acid Dyes = 3				
151	4	1	Acid Yellow 36	587-98-4		ORAL LD50 Rat > 2000 mg/k
152	5	2	Acid Yellow 151	12715-61-6		NA
153	6	3	Acid Yellow 194	61814-52-6		NA
		Group-3: Orange Acid Dyes = 2				
154	7	1	Acid Orange 33	6507-77-3		NA
155	8	2	Acid Orange 61	6408-33-9		NA
		Group-4: Blue Acid Dyes = 3				
156	9	1	Acid Blue 40	4474-24-7		NA
157	10	2	Acid Blue 49	N.A.		NA
158	11	3	Acid Blue 80	4474-24-2		Oral, rat: LD50 = 3350 mg/kg.
		Group-5: Black Acid Dyes = 1				
159	12	1	Acid Black 210	99576-15-5		Rat Oral LD50 (mg/kg) >5000
		Group-6: Brown Acid Dyes=5				
160	13	1	Acid Brown 58	12269-87-3		NA
161	14	2	Acid Brown 126	N.A.		NA
162	15	3	Acid Brown 362	61931-13-3		Acute oral toxicity: LD50(Rat): 8300mg/kg
163	16	4	Acid Brown 425	119509-49-8		NA
164	17	5	Acid Brown 432	119509-50-1		NA
	Total Of Category C =(Group 1+2+3+4+5+6) = 17				**100**	
	Category-D:Basic Dyes					
		Group-1: Red Basic Dyes=3				
165	1	1	Basic Red 12	6320-14-5		NA
166	2	2	Basic Red 14	12217-48-0		NA
167	3	3	Basic Red 18	14097-03-01		NA
		Group-2: Yellow Basic Dyes=2				
168	4	1	48054	54060-92-3		Acute oral toxicity: LD50(Rat): 200mg/kg
169	5	2	N.A	78181-99-4	100	NA
		Group-3: Orange Basic Dyes=2				
170	6	1	Basic Orange 30	12217-45-7		NA
171	7	2	Basic Orange 33	12217-46-8		NA
		Group-4: Blue Basic Dyes				
172	8	1	Basic Blue 140	61724-62-4		NA
		Group-5: Black Basic Dyes				
173	9	1	Basic Mix Black	NA		NA
	Total Of Category D =(Group 1+2+3+4+5) = 9				**100**	
	Category-E: Direct Dyes					
		Group-1: Red Basic Dyes=3				
174	1	1	Direct Red 16	07/02/6227	100	NA
175	2	2	Direct Red 80	08/10/2610		NA
176	3	3	Direct Red 81	09/11/2610		NA

		Group-2: Yellow Direct Dyes				
177	4	1	Direct Yellow 11	1325-37-7		NA
178	5	2	Direct Yellow 27	10190-68-8		NA
179	6	3	Direct Yellow 147	71838-49-8		NA
		Group-3: Orange Direct Dyes				
180	7	1	Direct Orange 15	1325-35-5		NA
181	8	2	Direct Orange 102	6598-63-6		NA
		Group-4: Blue Direct Dyes				
182	9	1	Direct Blue 80	12222-00-3		NA
183	10	2	Direct Blue 86	1330-38-7		ORAL RAT LD50:>5 g/kg
		Group-5: Black Direct Dyes				
184	11	1	Direct Black 168	3818-60-8		NA
	Total Of Category E =(Group 1+2+3+4+5) = 11				**100**	
	Category-f: Disperse Dyes					
		Group-1: Red Disperse Dyes				
185	1	1	Disperse Red 50	12223-35-7		NA
186	2	2	Disperse Red 60	12223-37-9		NA
187	3	3	Disperse Red 91	12223-46-0		NA
188	4	4	Disperse Red 92	12236-11-2		NA
189	5	**5**	Disperse Red 167	61968-52-3		NA
		Group-2: Yellow Disperse Dyes				
190	6	1	Disperse Yellow 54	12223-85-7		NA
191	7	2	Disperse Yellow 56	54077-16-6		NA
192	8	3	Disperse Yellow 114	61968-66-9		NA
193	9	4	Disperse Yellow 119	57308-41-5		NA
194	10	5	Disperse Yellow 211	86836-02-4		NA
		Group-3: Orange Disperse Dyes				
195	11	1	Disperse Orange 25	12223-22-2		Oral (rat) LD50: >2000 mg/kg
196	12	2	Disperse Orange 30	12223-23-3		NA
		Group-4: Blue Disperse Dyes			100	
197	13	1	Disperse Blue 56	12217-79-7		NA
198	14	2	Disperse Blue 79	12239-34-8		NA
199	15	3	Disperse Blue F2RX (mix)	N.A.		NA
200	16	4	Disperse Blue F2GX (mix)	N.A.		NA
201	17	**5**	Disperse Blue F2IX (mix)	N.A.		NA
		Group-5: Black Disperse Dyes				
202	18	1	Disperse Black R (mix)	N.A.		NA
203	19	2	Disperse Black RLX (mix)	N.A.		NA
204	20	3	Disperse Black XPX (mix)	N.A.		NA
		Group-6: Green Disperse Dyes				
205	21	1	Disperse Green 2B (mix)	NA		NA
		Group-7: Brown Disperse Dyes				
206	22	1	Disperse Brown 3BS(mix)	NA		NA
		Group-8: Gray Disperse Dyes				
207	23	1	Disperse Gray RBB (mix)	NA		NA
	Total Of Category f =(Group 1+2+3+4+5+6+7+8) = 23				**100**	
	Category-G: Reactive Dyes					
		Group-1: Red Reactive Dyes			100	

208	1	1	Reactive Red 45	12226-22-1		Rat Oral LD50 (mg/kg) >5000
209	2	2	Reactive Red 65	12226-32-3		NA
210	3	3	Reactive Red 111	88232-20-6		NA
211	4	4	Reactive Red 152	71870-80-5		NA
212	5	5	Reactive Red 194	23354-52-1		NA
		Group-2: Yellow Reactive Dyes				
213	6	1	Reactive Yellow 18	12226-48-1		Rat Oral LD50 (mg/kg) >5000
214	7	2	Reactive Yellow 57	61969-35-3		NA
215	8	3	Reactive Yellow 81	59112-78-6		Rat Oral LD50 (mg/kg) >5000
216	9	4	Reactive Yellow 135	77907-38-1		NA
217	10	5	Reactive Yellow 160	129898-77-7		NA
		Group-3: Orange Reactive Dyes				
218	11	1	Reactive Orange 12	35642-64-9		NA
219	12	2	Reactive Orange 13	12225-85-3		Rat Oral LD50 [mg/kg] : > 5000
220	13	3	Reactive Orange 84	91261-29-9		NA
221	14	4	Reactive Orange 122	12220-12-1		NA
		Group-4: Blue Reactive Dyes				
222	15	1	Reactive Blue 49	12236-92-9		Rat Oral LD50 (mg/kg) >5000
223	16	2	Reactive Blue 50	12225-61-5		Rat Oral LD50 (mg/kg) >5000
224	17	3	Reactive Blue 69	59800-32-7		NA
225	18	4	Reactive Blue 198	124448-55-1		Rat Oral LD50 (mg/kg) >5000
		Group-5: Black Reactive Dyes				
226	19	1	Reactive Black 5	12225-25-1		LD50 > 2,000 mg/kg (rat)
	Total Of Category G =(Group 1+2+3+4+5) = 19				**100**	
	Category-H: Vat Dyes					
		Group-1: Red Vat Dyes				
227	1	1	Vat Red 1	2379-74-0		NA
		Group-2: Yellow Vat Dyes				
228	2	1	Vat Yellow 2	129-09-9		NA
229	3	2	Vat Yellow 4	128-66-5		NA
230	4	3	Golden Yellow GK	1324-11-4		NA
		Group-3: Orange Vat Dyes			100	
231	5	1	Vat Orange 1	1324-11-4		NA
232	6	2	Vat Orange 5	3263-31-8		NA
		Group-4: Blue Vat Dyes				
233	7	1	Vat Blue 5	2475-31-2		ipr-rat LD50:5700 mg/kg
		Group-5: Brown Vat Dyes				
234	8	1	Vat Brown 5	398-75-1		NA
	Total Of Category H =(Group 1+2+3+4+5) = 8				**100**	
	Category-I: Naphtho					
235	1	1	NAPHTHOL – AS	92-77-3		NA
236	2	2	NAPHTHOL – ASBO	132-68-3		ipr-rat LD50:7320 mg/kg
237	3	3	NAPHTHOL – ASD	135-61-5		NA
238	4	4	NAPHTHOL – ASOL	135-62-6		NA
239	5	5	NAPHTHOL – ASBS	132-65-9	100	NA
240	**6**	**6**	NAPHTHOL – ASE	92-78-4		NA
241	**7**	**7**	NAPHTHOL – ASCL (ASCA)	132-65-9		NA
242	**8**	**8**	NAPHTHOL – ASKB	135-63-7		NA
	Total Of Category I = 8				**100**	

	Category-J: Fast Basis					
243	1	1	Bordeaux GP	96-96-8	100	Oral, rat: LD50 = 14100 mg/kg.
244	2	2	Orange GC	17333-85-5		NA
245	3	3	Red B	97-52-9		Oral, rat: LD50 = 997 mg/kg
246	4	4	Red RC	93-34-5		NA
247	5	5	Red TR	97-35-8		NA
248	**6**	**6**	Scarlet RC	27165-17-9		LD50 Oral - Rat - 400 mg/kg
249	**7**	**7**	Yellow GC	17333-83		NA
250	**8**	**8**	Blue B	119-90-4		NA
251	**9**	**9**	Garnet GBC	97-56-3		NA
252	**10**	**10**	Black K	64071-88-9		NA
253	**11**	**11**	Red KB	2780-35-4		NA
254	**12**	**12**	Blue BB	5486-84-0		NA
255	**13**	**13**	Red 3GL	89-63-4		LD50 Oral - Rat - 400 mg/kg(4-Chloro-2-nitroaniline)
256	**14**	**14**	Orange RD	29362-18-3		NA
257	**15**	**15**	Corinth V	47300-91-4		NA
258	**16**	**16**	Fast Red G Base	89-62-3		NA
259	**17**	**17**	Fast Scarlet R Base	99-59-2		Oral, rat: LD50 = 2250 mg/kg;
	Total Of Category J = 17				**100**	
	Category-K: Pyrazolone					
260	1	1	2,5-Dichloro SPMP	84-57-1	100	NA
261	2	2	Ortho Chloro SPMP	88-76-6		NA
262	3	3	1,3-SPMP	119-17-5		NA
263	4	4	1,4-SPMP	89-36-1		NA
264	5	5	PMP	89-25-8		Oral, rat: LD50 = 1915 mg/kg;
	Total Of Category K = 5				**100**	
	Category-L: Fast Basis					
65	1	1	3,3-Dichloro Benzidine Dihydrochloride [3,3-DCB]	612-83-9	500	Oral LD50 5628 mg/kg (rat)
266	2	2	Tobias Acid	81-16-3	150	Oral LD50 19400 mg/kg (rat)
267	3	3	4B- Acid	88-44-8	50	LD50 = 11700 mg/kg (Rat)
268	4	4	2B-Acid	88-51-7	50	Oral LD50 1230 mg/kg (rat)
269	5	5	Quinizarine	81-64-1	25	ORAL LD50 Rat > 5000 mg/kg
270	**6**	**6**	Chloranil	118-52-2	25	NA
271	**7**	**7**	DMSS	6289-46-9	25	LD50 > 15000 mg/kg (Rat)
272	**8**	**8**	1-Chloro-1,8-Naphthalic Anhydride	01/08/4053	25	Oral LD50 3460 mg/kg (rat)
273	**9**	**9**	1, 8-Diamino Naphthalene	479-27-6	25	Acute oral toxicity (LD50): 800 mg/kg [Rat].
274	**10**	**10**	1,5-Dichloro Anthraquinone	82-46-2	25	NA
	Total Of Category L				**900**	
	Grand Total				**2900**	

1.2 Water Requirement, Waste Water Generation and Treatment

Total raw water requirement will be 1001 KL/day (Industrial: 961 KL/day + Domestic: 20 KL/day + Gardening: 20 KL/day) which will be met Ground water. Total waste water generation will be 720 KL/day (Industrial: 700 KL/day + Domestic: 15 KL/day). Waste water

will be treated Effluent Treatment Plant (ETP) of primary treatment, secondary & tertiary treatment facility with RO & MEE. 310 KLD of dilute stream of effluent will be treated in ETP and RO permeate @ 210 KLD will be reused in process. 490 KLD of Concentrated stream of effluent (Process: 390 KLD + RO Reject: 100 KLD) will be treated in ETP and sent to own MEE, 473 KLD MEE condensate will recycled.

1.3 Air Pollution Source and Control Management

Sr. No.	Source of emission With Capacity	Stack Height (meter)	Quantity in No.	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Hot Air Gen. (200000 kcal)	32 Mtrs	4 (U2-8)	PNG	800 Cu.mt./ Hrs	PM SO_2 NOx	Adequate stack height
2	Steam Boiler 5 Ton/hr.	32 Mtrs	1	Briquette / Coal	5240kg / Hrs		Adequate stack Multi cyclone separator Dust Collector & Bag filter
3	Thermopack Boiler (200000 kcal)	30 Mtrs	1	Briquites	5260 Kgs/ Hr.		Adequate stack Multi cyclone separator Dust Collector & Bag filter
4	DG Set 250 KVA × 2 Nos. (Stand By)	11 Mtrs	2	HSD	200 Lit/hr		Adequate stack height
5	Spin Flash Dryer (Close Loop)	Close Loop	6	PNG	1200 Cu.mt./ Hrs	No	N.A.
6	Spray Dryer	15 Mtr.	2	PNG	400 Cu.mt./ Hrs	No	Water Immerserd Cyclone separator for Dust Collector

1.4 Hazardous Waste

Sr. no.	Type/Name of Hazardous waste	Source of generation	Category and Schedule as per HW Rules.	Quantity (MT/Month)	Disposal Method
1.	ETP Dry Sludge	ETP	Sch-I/ 35.3	40 MT/Month	Collection, Storage, Transportation & Disposal to TSDF Site
2.	Used Oils	Machineries & Equipment	Sch-I/ 5.1	150Lts /Months	Collection, Storage, Transportation & Sale out to Registered refineries
3.	Discarded Bags, Containers & Drums	Raw Material storage	Sch-I/ 33.1	30000Nos./Month	Collection, Storage, Transportation & Used for in-house packing of some intermediates & ETP wastes, & return back to Raw Material suppliers for same products
4.	MEE Salt	ETP	Sch-I/ 33.1	300 MT/Month	Collection, Storage, Transport and send to common TSDF Site for Disposal or Sale to actual user having Rule 9 Permission
5	Spent Acid	Process	Sch-I/ 26.3	250 MT/ Month	Collection, Storage, Transportation & Reuse in own premises in manufacturing process / Sale to actual user having Rule 9 Permission
3	HCL [Hydrochloric Acid]	Process	Sch-2/ Class C15	1900 MT/Month	
4	Ammonium Carbonate	Process	Sch-2/ --	730	
5	Sodium Hypo chloride	Process	Sch-2/ --	780	
6	Fly Ash from Boiler	--	--	300 MT /Month	Collection, Storage, Transportation and sent to brick manufacture.
7	Spent Solvents	Process	26.4/sch-I	20 MT/Month	Collection, Storage, Transportation & Reuse in own premises in manufacturing process / Sale to actual user having Rule 9 Permission

1.5 Green Belt

Total 20538 m^2 land area is available at site; out of this area about 6356 m^2 (31 %) area is covered as greenbelt and other forms of greenery.

1.6 Power & Fuel Requirements

- **Power Requirement**

Power requirement: 2000 KWA MGVCL

250 KWA × 2 Nos. DG Set = 500 KWA from D.G. set (Emergency power back up)

- **Fuel Requirement**

SR. NO.	NAME OF FUEL	QUANTITY
1.	HSD	200 m^3/Hr
2.	Briquette/Coal	10.5 MT/Hr
3.	Natural Gas	2400 SCM/Hr

1.7 Estimated Project cost along with analysis in terms of economic viability of the project.

Total capital investment for the proposed project is Rs. 20.0 crores.